



**CONSOLIDATED COMMISSION ON UTILITIES**

Guam Power Authority | Guam Waterworks Authority  
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

**Regular Board Meeting**  
**CCU Conference Room, Gloria B. Nelson Public Service Building**  
**12:00 p.m., March 24, 2020**

**AGENDA**

1. CALL TO ORDER
2. APPROVAL OF MINUTES
3. COMMUNICATIONS
  - 3.1 Public Comments (2 min. per person)
4. GPA
  - 4.1 GM Report
  - 4.2 Financials
  - 4.3 Resolution No. 2020-07 Authorization of Expenditures for Generation, Substation, Water System Diesel Facilities and Bulk Storage Tank Farm Permanent Repairs for Typhoon Mangkhut
  - 4.4 Resolution No. 2020-08 Authorization to Petition the Public Utilities Commission (PUC) to Request Interim Adjustment in the LEAC Rate
5. GWA
  - 5.1 GM Report
  - 5.2 Financials
  - 5.3 Resolution No. 17-FY2020 Relative to Adopting a Debt Service Coverage Target of 1.5X and a Working Capital Reserve of 120 Days of Operating and Maintenance Expense
  - 5.4 Resolution No. 18-FY2020 Relative to Approving the Charge-Off of Guam Waterworks Authority Receivables Deemed Uncollectible
  - 5.5 Resolution No. 19-FY2020 Relative to Approving Contract Amount Increase and Authorizing Change Orders for Construction Management Services Contract for GWA Water and Wastewater Facilities Phase A-1 Project
  - 5.6 Resolution No. 20-FY2020 Relative to Approval of Change Order No. 7 for the Route 1 "Asan-Adelup-Hagatna" Sewer Design Contract
  - 5.7 Resolution No. 21-FY2020 Relative to Approval of Amendment for the Indefinite Delivery/Indefinite Quantity Professional Project/Construction Management Services Contract
6. OTHER DISCUSSION
  - 6.1 Proposed CCU Rules
7. ANNOUNCEMENTS
  - 7.1 Next CCU Meetings: GWA WS – April 21; GPA WS – April 23; CCU Mtg – April 29
8. ADJOURNMENT



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**Regular Board Meeting**  
***CCU Conference Room, Gloria B. Nelson Public Service Building***  
**5:30 p.m., October 29, 2019**

**MINUTES**

**1. CALL TO ORDER**

The CCU Chairman called the CCU Regular Meeting of October 29, 2019 to order at 5:37 p.m. He said all five (5) Commissioners were present. Others in attendance include:

**Commissioners:**

Joseph T. Duenas	CCU Chairman
Francis E. Santos	CCU Vice Chairman
Michael T. Limtiaco	CCU Secretary
Judith P. Guthertz	CCU Treasurer
Simon A. Sanchez	Commissioner

**Executive Mgmt.:**

Miguel Bordallo	GM / GWA
John Benavente	GM / GPA
Melinda Mafnas	AGMO / GPA
John Cruz	AGMET / GPA
Tricee Limtiaco	AGMA / GPA
Chris Budasi	AGMA / GWA
John Kim	CFO / GPA
Taling Taitano	CFO / GWA
Kelly Clark	Legal Counsel / GWA
Graham Botha	Legal Counsel / GPA

**Management & Staff:**

Art Perez	Communications / GPA
Vangie Lujan	Compliance / GWA
Ron Topasna	Operations / GWA
Heidi Ballendorf	Public Information Officer / GWA
Paul Kemp	AGM Compliance & Safety / GWA
Gilda Mafnas	Asst. CFO / GWA
Patti Diego	Communications / GPA
Zina Charfauros	Personnel Services Admi / HR, GWA
Joyce Sayama	Mgmt. Analyst / GPA Ex.Officen
Ann Borja-Gallarde	Mgmt. Analyst / GWA Ex.Office
Lou Sablan	Board Secretary / CCU

**Guests:**

Angelica Perez	AM Insurance
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Ann Marie Muna  
Orlean Arriola

AM Insurance  
AXS Insurance

The Chairman announced a change in the meeting agenda and that there would be no executive session at this meeting.

## **2. APPROVAL OF MINUTES**

The Minutes of the CCU Special Meeting of July 18, 2019 was presented for approval.

Comm. Guthertz motioned to approve the Minutes subject to verification and written correction, second by Comm. Santos. There was no further discussion or objection and the motion passed.

## **3. COMMUNICATIONS**

### **3.1 Public Comments**

June Blas / Mayor of Barrigada – re Toto Canada water outage. She introduced Jesse Bautista who accompanied her. She said her constituents are frustrated about the outages in this area. She confirmed she was able to get some information but just want to state for the record by her presence and testimony of the seriousness of this matter to her people.

Rudy Pablo / Mayor of MTM - water break issue in his village, His constituents are constantly calling his office about the problems on Casimiru Street; Tenbat Street has been under repair for a couple of weeks already. He is aware that there are many water issues around the island but wants to know if there is anyway that this matter can be addressed more sooner than later.

Comm. Guthertz asked the GM to please comment.

GM Bordallo gave update on the areas in question – in Tenbat St. repair to this street was initiated but delay was caused to multiple breaks. The condition of the pipe was very worn and GWA ended up replacing 200ft of pipes. Re Casimiru it was more complex because there were 2 lines on top of each other, each with multiple breaks. The same thing is happening in Sta. Rita and GWA is handling these problematic installations as quickly as possible.

Comm. Sanchez asked if Tenbat St. is back in service as of today and the GM said yes and it will be a recurring headache for another 6 months or so until a permanent fix is addressed. The Commissioner addressed the number of water tanks available for the community during these long outages and it was determined that sometime the water tanks were not delivered quickly and gave some examples of the various circumstances.

Comm. Guthertz asked managements assurance that the water tanks are deployed faster to give relief to those affected.

Comm. Duenas asked the GM if there is a list of these problematic areas and the GM confirmed yes; management keeps records of all these happenings and are trying to prioritize repairs as best as possible.

## **4. GWA**

### **4.1 GM Report**

There was no GM report presented at this meeting.

### **4.2 Financials**

Comm. Duenas introduced GWA's new CFO – Taling Taitano.

The CFO referenced Schedule D, page 16 in board books and referenced YTD actuals of \$40M change in net assets - \$36M less than budget and attributed this to under performance of capital contributions and grants. Schedule E compares this year to prior year – the CFO referenced a hold in operating expenses; revenues are currently \$9M this year vs. last year.

**4.3 Resolution No. 01-FY2020 Approval of New Signatories for Guam Waterworks Authority**

If approved, Resolution 01-FY2020 will update signatories based on recent changes in management at various financial institutions including but not limited to the Bank of Guam, Bank of Hawaii, First Hawaiian Bank, Community First, Coast360, ANZ Guam, Bank Pacific, etc.

Comm. Sanchez motioned to approve Resolution 01-FY2020, second by Comm. Santos. There was no further discussion or objection and the motion passed.

**4.4 Resolution No. 02-FY2020 Approval of the Creation of Utility Compliance Laboratory Administrator Position**

Creation of the Utility Compliance Laboratory Administrator position is to update the duties and responsibilities of the position and align it with modern water and wastewater standards to enable the efficient and effective performance of duties and functions of the Guam Waterworks Authority's Laboratory section. The creation of this position is necessary to help direct and manage GWA's wide sampling activities in connection with water and wastewater operations.

The job specifications that GWA is currently utilizing are inconsistent with the rigorous operating procedures and practices of our laboratory operations. GWA Utility Compliance Laboratory operations are unique in duties and responsibilities compared to other government of Guam agencies.

GWA laboratory operations collect and analyze water samples from a wide variety of sources for a number of different reasons. Samples include shorelines, wastewater treatment plants and various rivers to evaluate impacts on the local environment. Drinking water samples are also taken to ensure safe water quality is maintained from source to each customer. Analyzes, assessed in laboratory samples include Calcium and Total Hardness, Chlorides, Alkalinity, Conductivity, pH, Temperature, Turbidity and Bacteria. Further, special samples are collected for contract laboratory evaluations for special contaminants of concerns such as pesticide, herbicide, synthetic organic chemical, volatile organic chemical content, and the results of which must be evaluated by the compliance laboratory staff. This makes the Utility Compliance Laboratory unique from other Government of Guam agencies.

The position is needed to explicitly identify Utility based job specifications for the Laboratory. Keeping in mind growth and increased productivity with an emphasis on more stringent required protocols by regulatory agencies such as USEPA.

The Utility Compliance Laboratory Administrator position will be organizationally located within the Compliance and Safety Department, under the general direction of the General Manager and the Assistant General Manager - Compliance and Safety.

Public Law 28-159, Section 7.0.3 (c) requires GPA and GWA to post a petition on their websites for ten (10) days (not including Saturdays, Sundays and government of Guam holidays). After the 10 days posting, the petition can then be forwarded to the CCU for their disposition at any regularly scheduled meeting. GWA has met the posting requirements.

Additionally, Guam law requires notice of such posting to each newspaper of general circulation and broadcasting station which airs regular news programs within Guam.

GWA will certify funding for the position available for the filling and retention of its certified, technical and professional newly created position. The funding of this position does not have an impact on the General Fund.

Comm. Sanchez motioned to approve Resolution 02-FY2020, second by Comm. Santos. There was no objection or other discussion and the motion carried. Unanimously.

**4.5 Resolution No. 03-FY2020 Approval of the 20<sup>th</sup> Market Percentile and GM Authority for FY2020**

This resolution was tabled.

**4.6 Resolution No. 04-FY2020 Approval of Production Well Meter Replacement Project**

The objective of the project is for GWA to replace faulty groundwater production meters and well head “above-ground” discharge piping. The reason for this project is 60 existing well head flowmeters were field tested and the results showed inaccuracies of existing meter gpm readings. The sum of the flowmeter readings for all the tested wells was approximately 1,800 gpm less than the sum of the existing meter readings. The deficiencies in meter readings are attributed to propeller-style meters that were not installed with proper upstream and downstream unobstructed clearances.

The production well meter reading deficiencies are resulting in either under-or-over report total production which affects non-revenue water calculations, making it difficult to track distribution losses. Replacement of production meters will require unobstructed straight run, and full pipe for the length of three or more pipe diameters upstream of the meter and two or more diameters downstream to be accurate. In addition to replacement of flow meters, this project includes replacement of above-ground discharge piping which are in poor condition.

The 60 well sites are scattered in northern and central Guam. Majority of the wells are located in Yigo, Dededo, Mangilao, Hagatna, and Sinajana.

The bid proposal amount for Basic Bid is One Million Three Hundred Seventy-Nine Thousand Four Hundred Five Dollars (\$1,379,405.00). GWA management is also seeking a ten percent (10%) contingency of the bid amount or One Hundred Thirty-Seven Thousand Nine Hundred Forty Dollars and Fifty Cents (\$137,940.50) to bring the total authorized funding request to One Million Five Hundred Seventeen Thousand Three Hundred Forty-Five Dollars and Fifty Cents (\$1,517,345.50). The funding for this project will be from the CIP Line Item PW 05-07 Meter Replacement Program, IFCIP or any other CIP line item applicable to the project intent.

The construction contract length of this project is 365 calendar days after an NTP is issued to the contractor.

Comm. Limtiaco asked why the estimate was off? The GM said it was not a significant difference.

Comm. Guthertz motioned to approve Resolution 04-FY2020, second by Comm. Sanchez. There was no further discussion or objection and the motion passed unanimously.

**4.7 Resolution No. 05-FY2020 Approval of Tamuning Sewer Hot Spots Construction Project**

Sewer system “Hot Spot” locations are areas where GWA wastewater operations have to constantly return to the sewer manhole or gravity main segment to conduct cleaning or pumping activities because at these locations there exist infrastructure defects such as a sag or low spot in the gravity main that causes wastewater to surge in the sewer main and manholes upstream of the Hot Spot location. Rehabilitation or replacement of defects at the Hot Spot location is necessary to remove the defects and allow wastewater to flow unrestricted and prevent Sanitary Sewer Overflows (SSO).

There are several Hot Spot locations in Tamuning however this project will address only the following:

- 440 linear feet of gravity sewer and manholes along Winner Apartments
- 50 linear feet of gravity sewer along Pancoso Palting Street
- 450 linear feet of gravity sewer and manholes adjacent to New Plaza Market
- 20 linear feet of gravity sewer along Jalaguac Way

Five (5) parties pick up Bid packages, only one (1) bid was submitted prior to bid deadline. The Base bid proposal submitted by Ian Corporation is One Million Ninety-Three Thousand Nine Hundred Fifty-Five Dollars and Eighty-Seven Cents (\$1,093,955.87). GWA management seeks approval of the base bid plus a ten percent (10%) contingency of One Hundred Nine Thousand Three Hundred Ninety-Five Dollars and Fifty-Eight Cents (\$109,395.58) to bring the authorized funding amount to a maximum of One Million Two Hundred Three Thousand Three Hundred Fifty-One Dollars and Forty-Five Cents (\$1,203,351.45). Funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds applicable to the project intent. The project is to be completed 300 calendar days from Notice to Proceed.

Comm. Guthertz said for the benefit of the public, what is a hot spot? The GM said hot spots are areas of gravity sewer line which requiring frequent repair due inherent defect to the pipes or various conditions like settlement.

Comm. Guthertz motioned to approve Resolution 0a5-FY2020, second by Comm. Sanchez. There was no further discussion or objection and the motion passed.

Comm. Limtiaco asked if this bid came in lower and the GM said yes. The estimate was \$3M and the bid came in at 1.9M

#### **4.8 Resolution No. 06-FY2020 Approval of Fund Increase for Construction Mgmt. Contract for the Baza Gardens Wastewater Cross Island Pumping/Conveyance System**

The overall construction project for the Baza Gardens wastewater conveyance project to date still has minor close out items for the Phase II contractor as well as minor work at the existing clarify, civil works and SCADA for the Phase III contractor which requires continued Construction Management services that GWA anticipates will extend to November 2019. Majority of the remaining work is at the new Baza Gardens Pump Station which is the Phase III contractor.

GWA management still seeks CCU approval of additional funding not to exceed the amount of One Hundred Thirty Thousand Dollars (\$130,000.00) for the extended contract performance period from September 2019 through November 2019 including documentation of the project close out. Notwithstanding the fund increase request GWA will be negotiating down the fee proposal given the level of staffing and construction activities will ramp down towards the end of the construction period.

The approval of the One Hundred Thirty Thousand Dollars (\$130,000.00), which GWA will view on a Time and Materials basis, will bring the total authorized funding for the Construction Management contract to Three Million Four Hundred Sixty-Two Thousand Five Hundred Sixty-Four Dollars and Fifty-Nine Cents (\$3,462,564.59). Funding for any Change Order to SSFM's contract moving forward will be from any available bond funds under the line item - WW 11-03 "Baza Gardens STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of \$3,000 per day from the contractor. The actual construction completion is projected to be by October 2019 however GWA anticipates the CM services will extend to November 15, 2019.

Comm. Guthertz ask the GM to share with the public the benefits of doing these projects. The GM said that this work will benefits the Baza Garden area to the new Agat-Santa Rita WWTP. It will give property owners along this corridor better gravity to sewer lines and makes connection better for the people living in these areas

Comm. Guthertz motioned to approve Resolution 06-FY2020, second by Comm. Sanchez. There was no further discussion or objection and the motion carried; the vote was unanimous.

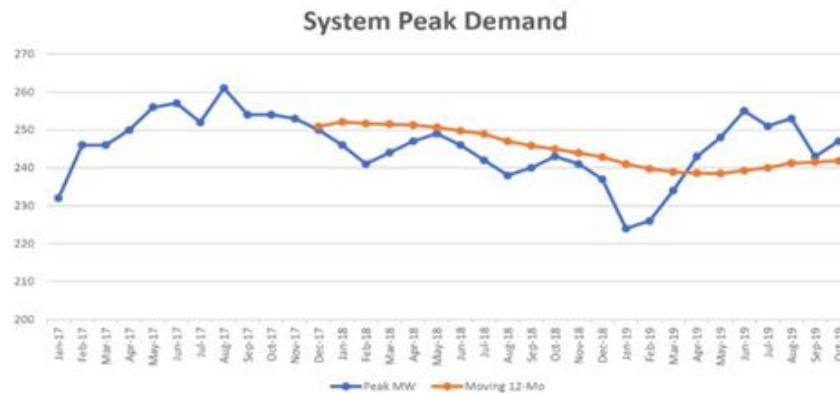
## 5. GPA

### 5.1 GM Report

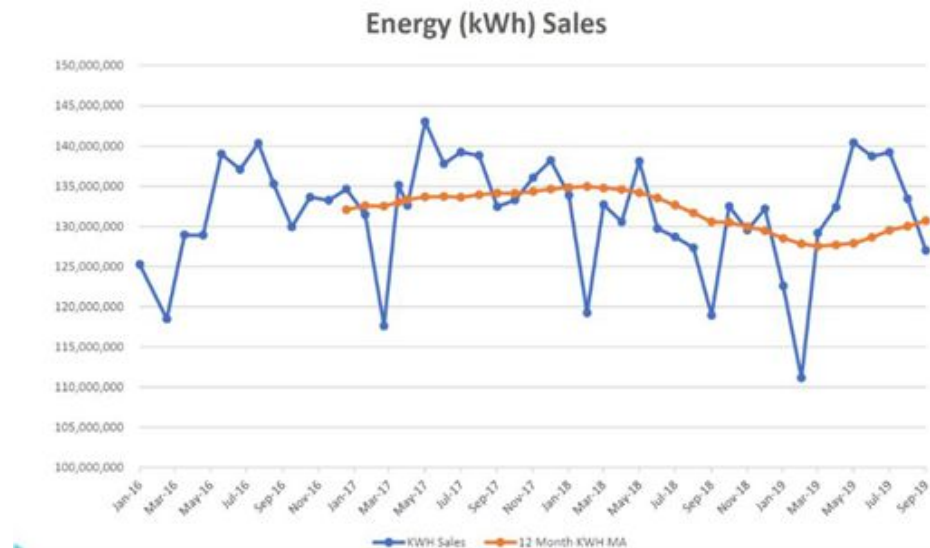
#### 1. **Generation System:** The following is the generation forecast for November 2019:

Projected Available Capacity: 381 MW  
 Projected Demand: 245 MW  
 Anticipated Reserve Margin: 136 MW

- The following updates monthly peak demands ending October 2019 to date:

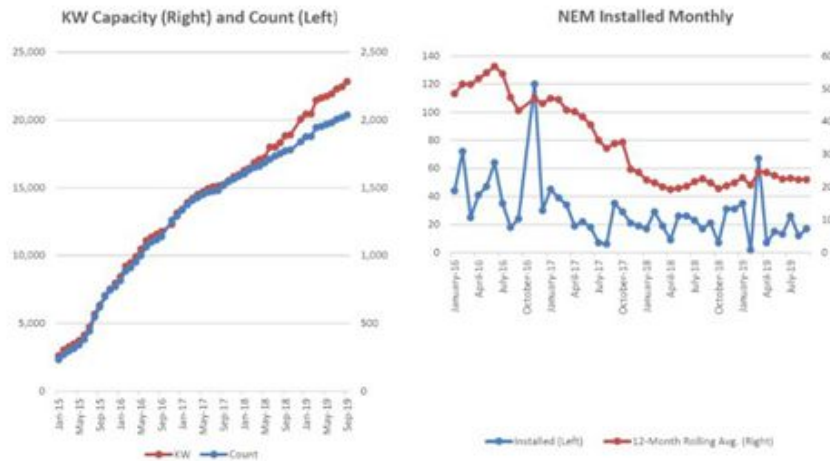


#### 2. **Energy Sales thru September 2019:** Sales trending upwards. Significant drop upon increase in LEAC in 2018.





## 3. Net Metering (NEM) Growth thru September 2019:



## 4. Program directly reduces energy cost to customer at a one time fixed rebate. Funded \$3.9M from base rate

DSM PROGRAM SUMMARY

Description	FY16	FY17	FY18	FY19 thru 9/30/19*	Total to Date
Regular/OT Pay	\$11,348.80	\$22,256.00	\$26,121.83	\$50,715.19	\$110,441.82
Other Contractual	\$28,278.50	\$85,550.05	\$116,977.50	\$3,025.00	\$233,831.05
Ads & Radio Announcements				\$7,500.00	\$7,500.00
Paid Rebates-Split AC	\$154,700.00	\$557,275.00	\$1,349,825.00	\$1,156,875.00	\$3,218,675.00
Paid Rebates-Central AC	\$3,400.00	\$8,200.00	\$4,400.00	\$6,000.00	\$22,000.00
Paid Rebates-Washer/Dryer	\$2,800.00	\$7,425.00	\$57,200.00	\$93,200.00	\$160,625.00
<b>Total Expenses</b>	<b>\$200,527.30</b>	<b>\$680,706.05</b>	<b>\$1,554,524.33</b>	<b>\$1,317,315.19</b>	<b>\$3,753,072.87</b>

## 5. PUC DOCKETS:

- GPA Docket 19-13: Petition to approve the ECA with KEPCO for the 198MW Power Plant is on the PUC agenda for this Thursday, October 31, 2019. The PUC has conducted three public hearings on the request.

## 6. Legislative Bills:

- Bill 80-35 (COR)**, *An Act to Amend § 8311 of Article 3, Chapter 8, Title 12, Guam Code Annotated, Relative to Raising the Renewable Portfolio Standards (RPS) of the Guam Power Authority. GPA supported the bill as introduced which increased the Renewable Portfolio Standard (RPS) to 50%. However, bill was amended to increase the RPS to 100% along with amendments prescribing how to get there. Please see my letter (attached) to the Legislature asking them to reconsider the amendments which I believe will negatively impact ratepayers.*
- Bill 196-35 (COR)**, *An Act to Amend § 7116(a) and (d), both of Chapter 7, Division 2, Title 17, GCA Relative to Authorizing Guam DOE to enter into Power Purchase Agreements to Purchase Solar Energy from Qualified Provider(s). This bill is being amended to transfer procurement authority from GSA to GDOE.*

## 7. Informational Briefings Conducted:

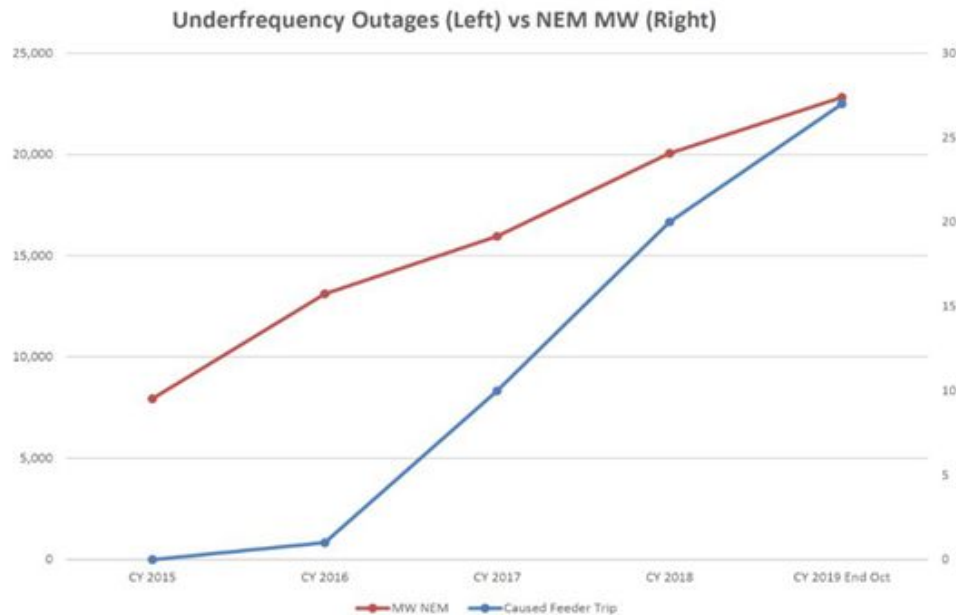
- Powering the Future 2019-2024 to Members, Guam Chamber of Commerce & Society of American Military Engineers (SAME)

## 8. Award of Phase III: Notice of Intent to Award, subject to CCU and PUC approvals to Engie Solar was made on October 4, 2019. A protest was filed by GlidePath on October 9, 2019. GPA is in the process of making a decision on the protest.



## 9. Solar PV Reliability Cost:

- Please see the following cost estimate on Solar PV production and reliability. There is a perception in the community that renewables, in particular solar PV is the cheapest energy for Guam and that we should eliminate conventional fossil fuel production. Please note the following:
  - Solar PV production is intermittent and requires an accompanying energy storage system such as a battery to provide a fairly smooth energy into the home or grid. GPA is purchasing energy from a 25 MW solar farm. In addition, there are about 22 MW of net metering customers tied into the grid without batteries. The result of all these intermittent production has degraded the reliability of the system. The number of under frequency automatic load shedding due to solar PV systems has increased substantially over the past few years. Additionally GPA is purchasing Net metering energy for \$0.25 /kWh which it could produce at \$0.154 /kWh.
  - The new GPA 40 MW frequency control batteries is coming on line by end of the year and would decrease these outages. However, we can't continue to add intermittent energy production into the grid which will degrade reliability again. GPA is evaluating this issue and will make a recommendation soon to require all future customer owned solar PV systems to have frequency control capability or Energy Storage System (ESS).
  - System Provided Frequency Control ESS cost about \$0.002 /kWh
  - An ESS to provide one standby day of reliability cost \$0.076 /kWh. Each additional standby day is the same, therefore for two days of reliability it cost \$0.152 /kWh. The new power plant provides 365 days of reliability at \$0.050 /kWh.
  - A hybrid of renewables and the new power plant will provide the lowest and most stable cost for the ratepayers. GPA will update the system Integrated Resource Plan by June 2020. The plan will have stakeholders input.



## Solar PV Cost for 1-Day Supply

Description	Existing GPS	Phase II	Phase III	TOTAL	100% Renewables
<b>Capacity kW</b>	<b>25,000</b>	<b>120,000</b>	<b>40,000</b>	<b>185,000</b>	<b>792,428</b>
<b>Approximate Acres (233kW/Acre)</b>	<b>107</b>	<b>515</b>	<b>172</b>	<b>794</b>	<b>3,401</b>
Estimated Annual Energy kWh	52,560,000	283,824,000	84,096,000	420,480,000	
Estimated System Annual Energy kWh	1,666,000,000	1,666,000,000	1,666,000,000	1,666,000,000	1,666,000,000
Capacity Factor	24.0%	27.0%	24.0%	24.0%	24.0%
Percentage of System Delivery	3.2%	17.0%	5.0%	25.2%	
Estimated Sales	1,549,380,000	1,549,380,000	1,549,380,000	1,549,380,000	1,549,380,000
RPS	3.4%	18.3%	5.4%	27.1%	
System Heat Rate kWh/Gal	15.3	15.3	15.3	15.3	
<b>Total Barrels Fuel Avoided</b>	<b>81,793</b>	<b>441,681</b>	<b>130,868</b>	<b>654,342</b>	
Fuel Cost Amount Avoided @\$55/BBL	\$4,498,599	\$24,292,437	\$7,197,759	\$35,988,796	
Contract \$/kWh	\$0.198	\$0.085	\$0.120 *estimated		\$0.120
Annual Cost	\$10,406,880	\$24,125,040	\$10,091,520	\$44,623,440	\$199,920,000
Average \$/kWh				\$0.106	
\$/kW	\$4,000	\$4,000	\$5,000		
<b>Investment Required</b>	<b>\$100,000,000</b>	<b>\$480,000,000</b>	<b>\$200,000,000</b>	<b>\$780,000,000</b>	<b>\$3,777,138,508</b>
\$/kW				\$4,216	\$4,766

All projects beyond Phase II requires energy storage systems (ESS) for load shifting.

## Solar PV Production is Inconsistent and Requires Substantial Battery Reserves

25 MW Solar PV Production  
Aug 1st thru Sept 26th, 2019



## Energy Storage System Cost for 1-Day Supply

ENERGY STORAGE SYSTEM			
FREQUENCY CONTROL		LOAD SHIFTING	
Battery Size kW	40,000	Peak Demand kW	256,000
Investment	\$35,000,000	Battery Size kW	40,000
Annual Debt Service 5%, 20 yrs	\$2,006,065	Daily Net kWh	5,000,000
Annual O&M	\$300,000	Max 10 hour Storage of 40MW Battery	14
Total Annual Cost	\$2,306,065	Estimated Battery Cost for 1-Day Reserve:	
GPA Total Sales kWh	1,650,000,000	\$/kWh USA	\$209
\$/kWh Sold		\$/kWh Guam	\$314
Monthly Cost/1,000 kWh Customer	\$1.40	Investment for System Daily 5,000,000 kWh	\$1,567,500,000
Annual Cost/1,000 kWh Customer	\$16.77	Annual Cost 5%, 20 yrs	\$125,780,255
		\$/kWh for 1,650,000 kWh	\$0.076
		Monthly Cost/1,000 kWh Customer	\$76.23



## \$ 8.8B for 100% Renewables plus 1-Day Reserve Capacity

KW Capacity Required for 1-Day to Full Charge	868,056
\$/KW Investment	\$4,000
Total Investment:	\$3,472,222,222
Daily use	\$3,777,138,508
Recharge Capacity for 1-Day Recharging	\$3,472,222,222
One Day Battery Reserve Capacity	\$1,567,500,000
Total:	\$8,816,860,731
Annual Cost; 20 year life	\$440,843,036.53
Annual kWh	1,666,000,000
Annual \$/kWh	\$0.265
Base Rate less \$0.03/kWh Avoided with Retirement of Conventional Units	\$0.070
\$/kWh 100% Renewables Plus 1-Day Storage and 1-Day Recharge:	\$0.335

## \$0.6B for 24/7 Reliable and Lower Cost Power

DESCRIPTION	PITI 8 & 9 (MEC)	UKUDU (KEPCO)
Annual Fixed Capacity Fee	\$18,000,000	\$40,000,000
Total KW Capacity	88,000	198,000
\$/KW	\$205	\$202
Annual All-In Cost Excluding Fuel:	\$15,000,000	\$70,000,000
Annual Capacity Factor	80.0%	80.0%
Annual Net kWh	598,202,880.0	1,387,584,000.0
Annual Net \$/kWh ULSD	\$0.025	\$0.050
Annual Net \$/kWh LNG	\$0.025	\$0.043
Thermal Efficiency	39.4%	55.13%
Net Heat Rate kWh/gal ULSD	15.7	20.5
\$/BBL ULSD	\$90.00	\$90.00
\$/kWh ULSD Fuel Cost	\$0.136	\$0.105
\$/kWh LNG Fuel Cost	\$0.105	\$0.080
Total Production Cost ULSD	\$0.1616	\$0.1550
Total Production Cost LNG	\$0.1297	\$0.1234
Age (years)	20	0
Annual Availability	90%	96%
Self Back Up	None	64MW Diesels; 25MW ESS
Forced Outage Rate	5%	2%

**5.2 Financials**

There was an increase in net assets for the end of August was \$1.3M as compared to the anticipated net Increase of \$1.0M projected at the beginning of the year. kWh sales were 4.03% less than projected and non-fuel revenues were \$0.7M less than projected. O&M was \$6.3M, \$0.3M less than projected. The Quick Ratio has been a challenge historically.

**5.3 Resolution 2019-14 USEPA Consent Decree**

The U.S. Environmental Protection Agency (EPA) alleges that GPA has been in violation of the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) standards for oil-fired electric steam generating units at Cabras Units 1 and 2 since April 2015, and the standards for stationary reciprocating internal combustion engines at Cabras Units 3 and 4 from May 2013 to September 2015, and Piti Units 8 and 9 since May 2013. The Guam Power Authority (GPA) and the U.S. Environmental Protection Agency (EPA) have reached an agreement in principle to resolve alleged violations of the Clean Air Act at GPA's Cabras and Piti generating plants, the details of which are contained in the draft consent decree, which is submitted to the Consolidated Commission on Utilities (CCU) and the Guam Public Utilities Commission (GPUC) for review and approval.

To resolve the EPA's alleged violations, the settlement requires that GPA pay a civil penalty of \$400,000; construct and operate a new 180MW power plant burning ultra-low sulfur diesel (ULSD) by October 31, 2022; convert GPA's fuel delivery system from residual fuel oil (RFO) to ULSD, which will include refurbishing the main fuel bulk storage tanks; construct a new ULSD pipeline; run Piti Units 8 and 9 on ULSD by December 31, 2021; use low-sulfur RFO in Cabras 1 and 2 and permanently shut down Cabras 1 and 2 by October 31, 2022; build 100MW of additional utility scale solar power; and install and operate a new energy storage system by December 31, 2019. EPA has alleged that the GPA units have not been compliant with the applicable NESHAP regulations since May 2013 (Cabras 3 and 4, Piti 8 and 9) and since April 2015 (Cabras 1 and 2), which, without a settlement, would subject GPA to potential fines in the hundreds of millions of dollars in civil penalties, in addition to the cost of substantial investments to reduce emissions, with a much more aggressive compliance schedule required by EPA. The proposed consent decree requires GPA to pay a nominal civil penalty which takes into account GPA's limited economic resources, and allows GPA to focus its expenditures on a new efficient power plant, and cost-effective emission reduction measures.

Based on all the additional information provided by GPA over the course of the extensive negotiation process with the U.S. Environmental Protection Agency (EPA) and the US Department of Justice (DOJ), the CCU determines that is in the best interest of the ratepayers of Guam to proceed with the proposed Consent Decree with EPA and DOJ.

The settlement requires that GPA pay a civil penalty of \$400,000. Without a settlement, it would subject GPA to potential fines in the hundreds of millions of dollars in civil penalties, in addition to the cost of substantial investments to reduce emissions, with a much more aggressive compliance schedule required by EPA.

The GM said that this resolution is a very important one and one that has been discussed numerous times in past years. He asked Legal Counsel Botha to give overview of consent decree status and to intro GPA's Legal Counsel Mr. Matt Morrison who has been helping us negotiate the consent decree for the last 3-4 years with the Dept. of Justice and USEPA. His background includes 23 years of environmental compliance litigation. He said they have put forth the resolution detailing the basic terms of the consent decree and detailing what the settlement includes – to resolve all of the violations of relative to the Cabras plants and Piti 8&9 Units. The details include a Civil Penalty is \$400,000 and allows us to construct & operate the new power plant and shut down the plants by completion of the new power plants.

Mr. Morrison gave brief overview of compliance standards when they went into effect in 2013 and 2015 and applies to the type of plant facilities that GPA operates. One is the Reciprocal Internal Combustion Engine or RICE and the other is the Mercury and Air Toxic Standards or MATS.



Mr. Morrison said he would do a brief on GPA's alleged violations, the key settlement terms, the current status and recommendations. He reiterated that this will be an ORDER OF THE COURT not just a regular agreement. After all action is complete the ORDER will be lifted. Below is summary of his brief.

#### Alleged Violations

Cabras units 1&2 have operated in violation of MATS since April 2015; Cabras Units 3&4 operated in violation of RICE since May 2013 until the explosion in 2015. Piti units 8&9 have operated in violation of the RICE since May 2013.

#### Key Settlement Terms

GPA will pay a civil penalty of \$400k and build / operate a new 198MW power plant that burns ultra-low sulfur diesel and capable of burning liquified natural gas. GPA's fuel delivery system will be converted from residual fuel oil to ultra-low sulfur diesel. Piti units 8&9 will be modified to burn ULSD by December 2021. Cabras Units 1&2 will be modified to burn ULSD and shut down by October 2022. Cabras 3&4 and Tanguisson will be permanently shut down within a month after settlement. GPA will build a 100MW solar power in addition to the 25MW of solar already installed; GPA will install and operate a new energy storage system totaling 40MW.

#### Effects of Settlement

The Consent Decree will resolve the RICE and MATS claim made by EPA against GPA and Marianas Energy Co.; GPA will not be admitting liability in the Consent Decree but rather is making a strategic settlement to avoid the cost and uncertainty of litigating the United States claims; when Consent Decree is approved the District Court of Guam, it will become enforceable order of the Court.

#### Termination

The Consent Decree can be terminated once all of the obligations have been fulfilled; DOJ and EPA will likely file a motion to terminate this Consent Decree in 2023.

Mr. Morrison said approvals are in place to proceed with the settlement. PUC approved a contract between GPA and AYM International for construction of a ULSD pipeline and the bulk storage fuel tanks inspection and refurbishment between GPA and Tristar Agility. They also approved contract between GPA and Mobil Oil Guam and Isla Petroleum and Energy Holdings for supply of ULSD to GPA. The CCU approved the Energy Conversion Agreement [ECA] between GPA and Korea Electric Power Company [KEPCO] for the new 198MW power plant. GPA filed the ECA with PUC and GPA expects to sign the ECA agreement after PUC review.

#### DOJ and Judicial Approval Process

After GPA and MEC sign, the settlement must be authorized by the Asst. AG for Environment and Natural Resources of the Dept of Justice. Once DOJ files the Consent Decree with the US District Court for Guam a public notice will be published in the Federal Register after which the public will have 30 days in which to submit comments. After close of the public comment period, DOJ in coordination with EPA will respond to any comments submitted and request that the Court approve the settlement as an order of the court.

Mr. Morrison said that the settlement terms are favorable for Guam stating that EPA has a viable claim against GPA. The regulatory requirements are clear and data shows that GPA exceeded the allowable emissions limits. Also, EPA has reduced the penalty because of a determination that GPA has limited ability to pay a civil penalty given its financial status. GPA was also allowed to negotiate a favorable timeline for the work to become compliant. Lastly the cost of litigation would be high and could very well result in a much higher penalty and more heavy compliance schedule.

He added that the penalty is reasonable for these types of violations. The Clean Air Act authorizes EPA to seek civil penalties up to a max amount established by statute and regulation – for GPA this is more than \$600 million, far beyond GPA's means. GPA was able to demonstrate that it has a limited ability to pay even the standard settlement amount and that funds would be better spent on new equipment and fuels to lower emissions. The \$400k GPA penalty for violations at six units is significantly lower than that recovered by the U.S. in similar cases and gave some examples.

#### The Path Forward

GPA can meet the schedule laid out in the Consent Decree – the schedule was negotiated with EPA and is better than EPA could have demanded or would require if GPA was forced to litigate its claims. GPA will need to provide EPA with an update report every six (6) months, which must include the status of construction and compliance with the Consent Decree. If GPA misses a deadline there are three (3) options – request a delay from EPA based on circumstances that were unforeseeable, sudden, and outside of GPA's control; request that the Court modify a deadline in the Consent Decree and pay the stipulated penalties in the consent decree for missing the deadline.

It was mentioned that the settlement will help Guam's power grid because it allows GPA to modernize its power plants, which is needed regardless of whether this settlement is concluded. GPA's plans for an additional 100MW of rooftop solar, combined with its existing solar energy portfolio would also mean that a substantial portion of GPA's projected daytime production after 2021 will come from renewable energy.

#### Recommendation

Mr. Morrison recommended to the CCU to approve the settlement because the violations and potential penalties otherwise faced are substantial. The settlement conditions will improve Guam's air quality by requiring that GPA retire some of its older units and switch to cleaner fuels, primarily through building a new ULSD power plant. The settlement provides Guam with cost-efficient and reliable power and the settlement conditions will also increase Guam's energy security by dramatically expanding GPA's renewable portfolio.

Comm. Guthertz said the presentation was very well put together and easy to understand and appreciate. It reflects what the agency and CCU has been trying to do. She looks forward to the public knowing what this is all about and that it gets the support that it needs and final approval by the court & PUC.

Mr. Morrison recognized GM John Benavente and staff and in particular Legal Counsel Graham Botha who led the negotiations.

Comm. Guthertz motion to approve the proposed settlement, second by Comm. Sanchez.

In discussion Comm. Limtiaco said his only concern is related to Piti 8&9's conversion to ULSD because the timeline is very tight. He asked GM Benavente whether or not it is truly achievable and can GPA meet this schedule and maintain reliability standards that he alluded to. The GM said it is a challenge to convert MEC 8&9 by 2021. He said conversion by this date is not so much the issue - its taking the units down for the period needed during this growth period is the real issue. He said reaching resolution of this USEPA compliance issue makes it well worth the effort to try our best to meet the challenge and management will try to mitigate what comes up to move the plan along.

Comm. Limtiaco asked the GM to speak about the cost to move from RFO to ULSD is more expensive. The GM confirmed that it will cost about \$30M more per year to move from RFO to ULSD. Part of the reasoning to move to ULSD around this time is intentional to tie in with the shutdown of Cabras 1&2. The objective is to use up all the inventories of RFO on hand.



Comm. Limtiaco asked about possibility of LEAC impact and the GM said there could be it depends but the cost associated with the penalties are substantially higher.

Comm. Sanchez wanted clarification on the related fuel impact and the GMA confirmed there is potential impact of \$30M expense for Piti 8&9 for period Dec2021 - Oct 2022 until the new power plant is operational. It was mentioned that on top of this there is the \$400k in penalty that will be paid with cash flow and will not impact ratepayers.

Comm. Limtiaco said considering PUC will hear the docket on the new power plant and because the consent decree timelines are largely dependent on the new power plant timeline he asked if it would be more prudent to wait until PUC approves the power plant before voting on this matter.

Comm. Sanchez said he sees it as being the entire opposite. He said this is public record and would rather approve it tonight so PUC knows we acted on it. There's no more speculation....this may help influence their decision and doesn't see any benefit to wait. He asked Mr. Morrison if CCU needs PUC approval for the consent decree.

Comm. Limtiaco asked what are the options if PUC does not approve the new plant - will ratepayers face an increase? GM Benavente commented said without the new power plant EPA and take GPA to court and mandate that GPA burn ULSD by a certain date and the same with Cabras 1&2. The corresponding impact for the latter is about \$100k per year in fuel. The new power plant is integral to ensure what is best for the ratepayers. The other thing is the PUC is not unfamiliar with this plan to build a plant and retire the old plants. PUC is aware of this.

Comm. Duenas said the PUC approved to concept of building the power plant. What PUC has before them is to approve the contract not the concept but rather contract terms and conditions.

Comm. Sanchez said if PUC does not approve the consent decree then they have to answer to the Court as to their reason. He said he would rather do everything it can now.

Matt Morrison added that if the CCU decides to not approve this settlement no one has signed document yet. CCU could approve settlement tonight and if PUC disapproves it the Commission could reserve their right to revisit this discussion. USEPA is blind to these deliberations and only concerned about when the official signature is complete.

Comm. Guthertz said she does not want any hesitation on behalf of the CCU on this matter. Everyone worked very hard to get to this day. Everything in the proposed settlement is positive adding the timeline is tight but we can work with the Department of Justice and USEPA to address any related issue at that time. We should be the first to support this and we should vote tonight.

Comm. Limitaco said he believes the consent decree was well written and that he supports it, his concerned is the tight timeline and the ramifications that follow should PUC not approve on Thursday.

Comm. Duenas told Comm. Limtiaco to take comfort in the fact that PUC approved that GPA move forward with the new power plant and is confident that the PUC will act favorably.

Comm. Santos said for the record that we have 800 days either we pay \$600M or \$400k There is no other option here.

Comm. Guthertz motioned to approve Resolution 2019-014 relative to the USEPA Consent Decree second by Comm. Sanchez

Comm. Simon reconfirmed with legal if PUC needs to approve this in discussion it was mentioned that PUC need only be informed and that this matter is between GPA and USEPA. Legal Counsel concurred stating that initially he was advised to petition the PUC but if this is no longer CCU's sentiment, the resolution can be amended.

Comm. Guthertz motion to amend the resolution to strike any reference to petition the PUC, second by Comm. Sanchez. The vote was unanimous.

On main motion the vote was unanimous and Resolution 2019-14 carried as amended.

## **6. ANNOUNCEMENTS**

### **6.1 Next CCU Meetings:**

The Chairman announced that the next CCU meeting would be a GWA work session on November 19<sup>th</sup>, a GPA work session on November 21 and the regular monthly CCU meeting on Nov 26.

## **7. EXECUTIVE SESSION**

### **7.1 Potential Litigation Matter**

Executive Session was canceled prior to the start of the meeting.

## **8. ADJOURNMENT**

There being no other business to bring before the Commission,

Comm. Santos motioned to adjourn the meeting; second by Comm. Sanchez. It was unanimous and the meeting adjourned at 6:57 p.m.

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Attested:

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JOSEPH T. DUENAS, Chairman

\_\_\_\_\_  
MICHAEL T. LIMTIACO Secretary



**CONSOLIDATED COMMISSION ON UTILITIES**  
Guam Power Authority | Guam Waterworks Authority  
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

**Regular Board Meeting**  
**GUAM POWER AUTHORITY**  
***CCU Conference Room, Gloria B. Nelson Public Service Building***  
**5:30 p.m., August 29, 2019**

**MINUTES**

**1. CALL TO ORDER**

The Chairman called the CCU regular meeting for GPA for August 29, 2019 to order at 5:53 p.m. He said all five (5) Commissioners were present for a quorum. Others in attendance include:

**Commissioners:**

Joseph T. Duenas	CCU Chairman
Francis E. Santos	CCU Vice Chairman
Michael T. Limtiaco	CCU Secretary
Judith P. Guthertz	CCU Treasurer
Simon A. Sanchez	Commissioner

**Executive Mgmt.:**

Miguel Bordallo	GM / GWA
John Benavente	GM / GPA
Melinda Mafnas	AGMO / GPA
John Cruz	AGMET / GPA
Tricee Limtiaco	AGMA / GPA
Chris Budasi	AGMA / GWA
John Kim	CFO / GPA
Gilda Mafnas	CFO (A) / GWA
Kelly Clark	Legal Counsel / GWA
Graham Botha	Legal Counsel / GPA

**Management & Staff:**

Art Perez	Communication / GPA
Heidi Ballendorf	Communications / GWA
Jennifer Sablan	Manager SPORD / GPA
Cora Montellano	Asst. CFO / GPA
Vien Wong	IT / GPA
Joyce Sayama	Mgmt. Analyst / GPA Ex.Office
Lou Sablan	Board Secretary / CCU

**Guest:**

Jonas Santos	Sen. Ridgell's Office
Angelica Perez	AM Insurance
Joni Kerr	Resident
Michelle. Voacolo	Resident
Rino Monzano	MEC / OSAKA
E. Momoto	MEC / OSAKA
Kuri Hara	MEC / OSAKA
Osaza	MEC / OSAKA
Yanaka	MEC / OSAKA

## 2. APPROVAL OF MINUTES

No Minutes were presented for approval at this meeting.

## 3. COMMUNICATIONS

### 3.1 Public Comments

There were two (2) resident who addressed the Commission – Ms. Joni Kerr, a teacher at Guam Community College and Michelle Voacolo, a concerned citizen.

Ms. Kerr encouraged management to take a closer look at renewable energy. She is concerned about the cost of the new plant and said funds would be better used to implement more renewable. Also mentioned emissions. Management said the new plant will only create emission that is compliant with USEPA standards. Existing plants must be equipped with scrubbers which is not cost effective. Also Ms. Kerr asked to consider more roof space in agencies and residents subsidized by GPA. Also mentioned use of treated wastewater to be used at the new plant; she was concerned if odor will be eliminated. Chairman said the plan to use treated wastewater is better than the system currently being used at Cabras now because the water at Cabras is taken from the ocean and put back into the ocean which affects the environment. She mentioned her concern about the South Korean company that will run the plant and that they were running the Cabras plant during the recent explosion. The GM said as far as GPA is concerned, there is no issue with KEWP – there were so many variables that could have caused the explosion and none of the independent investigative agency came up with any conclusive root cause for the explosion. Management said that all the costs are borne by KEWP the contractor and that they own it until after 25 years. They are responsible to ensure that the plant is 96% operate at all times. The GM named the current IPP's and GPA's successful experience with this type of business unit. She was also concerned about the use of LNG and said it is a very volatile agent. Management said LNG is not part of the current contract. The power plant is designed to also burn LNG in the future. It will be considered in the future. Comm. Limtiaco said the issue is GPA still has to address making the current plant compliant and the cost is about \$400M plus \$15M in O&M and \$100M in fuel cost. This retrofit would not result in any rate decreases and no addition of renewables. Comm. Sanchez added that the tradeoff is ratepayers want a lower power bill and to still be environmentally friendly and compliant. Ironically this plant better serves this goal – it will help lower the power bill and will enable GPA to add more renewables.

Ms. Voacolo said she has similar concerns about environment emissions at the new power plant. She pointed out that USEPA standards does not necessarily put the environment first. Comm. Sanchez responded that the USEPA standards is a national standard applicable to every source of generation

which was established back in 2012. She asked if the power plant in 10-15 years can become a strained asset with renewable energy on the rise. Comm. Sanchez said no and explained that the renewable argument is different in the states vs. Hawaii and Guam. No one is proposing that one can go to 100% renewable in a couple of years – it is a migration process that may take as much as 20-25 years and by that time, this new power plant will be paid off. KEPCO operation losses is another concern and Ms. Voacolo names a few citations that she gathered from a report. Comm. Limtiaco said that KEPCO had to file a performance bond. They have to be bonded and if they cannot perform the utility takes the bond money. There are provisions in the contract that put a financial impact on KEPCO, if they cannot perform. GPA holds the bond.

#### **4. GPA**

##### **4.1 New Business**

###### **4.1.1 GM Report - None**

###### **4.1.2 Financials - None**

###### **4.1.3 Resolution No. 2019-13 Approval of Energy Conversion Agreement [ECA] for New 198MW Combined Cycle Power Plant**

The commissioning of the *new dual fuel power plant* is critical to meeting GPA's Compliance Plan with USEPA. Discussions and negotiations for a consent decree are currently ongoing between GPA and USEPA. GPA's plan is to have all power plants compliant with USEPA regulations, which includes the retirement of Cabras 1 & 2, and the conversion of MEC 8 & 9 to use ULSD. The *new dual fuel power plant* will provide high reliability, significant fuel efficiency compared to the aging Cabras power plants, and the fuel efficiency savings will minimize the conversion impact from transitioning to a more expensive cleaner ULSD fuel. The *new dual fuel power plant* will reduce GPA's annual fuel consumption by about 35 million gallons of fuel per year. The *new dual fuel power plant* can also burn natural gas, at a substantial O&M savings, and the use of LNG would allow GPA to further reduce energy cost. The *new dual fuel power plant* is critical to the future of the power system and GPA needs to proceed with commissioning the new power plant by October 2022.

GPA is requesting the CCU and PUC to review and approve the Energy Conversion Agreement (ECA) with KEPCO for the new dual fuel power plant and its supporting schedules and documents. KEPCO is providing GPA with a new dual fuel power plant for a total firm capacity of 198MW to include three (3) Siemens ST 800 45MW combustion turbines for total MW capacity of 135MW and one (1) 63MW Siemens steam turbine.

The plant will be located at the Harmon (Ukudu) Area and anticipated cost is 25-year net present value of \$3,121,230,000. The projected commissioning of the new plant is October 2022 and the funding source is base rate, LEAC and Cabras 3&4 insurance proceeds

Comm. Sanchez motioned to accept the abbreviated briefing presentation from the August 22 GPA Work Session into the new power plant package being considered for approval, second by Comm. Limtiaco. There was no objection or further discussion and the motion carried unanimously.

The GM proceeded to give his brief on the new plant summarizing on the purpose of the new power plan, the procurement process, the characteristics of the new plant, the impact on rates, and the USEPA Consent Decree.

Some key purposes that were mentioned include 1) the need to comply with USEPA's RICE-MACT and EGU-MACT regulations which became effective in 2013 and 2015 respectively. All base load plants are non-compliant and penalties accrued to date are in the hundreds of millions 2) to replace aged Cabras steam plants. The Cabras plants were commissioned in 1974 and is nearing the end of its useful life and is a source of significant USEPA non-compliance penalties 3) to meet load growth and avoid rolling load shedding. There would be challenges meeting load growth over the next three years. Without new capacity beyond 2022, load shedding would again impact ratepayers 4) to increase renewable integration because existing units are not able to operate well with intermittent renewables. The new plant is needed in order to achieve higher renewable portfolio standards.

The GM also talked about alternatives for compliance with USEPA stating that the current baseload plants at Cabras will require fuel conversion to Ultra Low Sulfur Diesel to comply with air emission regulations. He said the plants require additional investments to address existing and future air and water USEPA regulations and that GPA is facing significant penalties from USEPA if compliance plan is not implemented. The new plan will be compliant and is more economical compared to conversion for compliance life extension and operating costs of the Cabras 1&2 units

He said the USEPA penalties are about \$352M. He added that they have been trying since 2012-2013 to initiate a consent decree and work with USEPA on a compliance plant to avoid paying these fees. Management believed that USEPA will defer filing a consent decree if GPA shows due diligence of their plan to resolve the compliance issues with the current plants that are non-compliant

The GM gave USEPA a proposed compliance / retirement plan for the plants that are non-compliant to include construction of 180MW of combined cycle units and commission units fired on Ultra Low sulfur diesel and/or Liquefied Natural Gas no later than Sept. 30, 2019.

At the end of the presentation the GM summarized that the new power plant is critical to the future of the power system and we need to proceed in commissioning the plant by October 2022; that the new plant is much more reliable than the existing units; that The new plant is much more efficient than existing units; that the new plant improves the sustainability and resilience of the island and that the new plant utilizing ULSD provides the opportunity for a net reduction in cost by 2023.

In addition, he requested the CCU and will petition the PUC to approve the Energy Conversion Agreement with KEPCO for the New Combined Cycle Plant and its supporting schedules and documents namely the Energy Conversion Agreement [ECA] and the ECA schedules and supporting documents

The Commission proceeded to review the Energy Conversion Agreement (ECA) section by section.

Article 1 is related to definitions and there is nothing unusual there. Legal Counsel Botha said there are some long Guam specific definitions included but most are standard definitions. It was mentioned that the governing law of the contract are the laws of Guam and the U.S.



Comm. Santos asked why arbitration is held in Los Angeles and is it binding – this will be addressed when we come to this section in the Agreement

Article 2 – Interpretation – Comm. Sanchez recommended management to state at the beginning of each Article a summary of what it contains / means and discussions can then follow on the related article / section. There was no discussion on Article 2, Interpretation.

Article 3 – Reserve – Comm. Sanchez asked the meaning of “Article 3 Reserved” and why is it there. Project Manager said that Article 3 was not used. In discussion Comm. Duenas said that he assumes that this is a standard template of Stanley’s and Article 3 is related to something that is not needed in this ECA. There was discussion if it can be removed. Legal Counsel said he does not think there would be a problem. Comm. Limtiaco said there are other sections in the ECA that refer to “not used” so can we then remove these so it is not confusing. GM Benavente said if these phrases are removed it will affect all other related references in the other sections of the ECA. He added that this will take more time to scrutinize each and every sentence to ensure that after the renumbering that the references are correct. Comm. Santos again asked Legal Counsel his opinion and he responded that he does not see any reason why these references cannot be removed.

Comm. Sanchez motioned to delete on Page 16, Article 3 Reserved from the ECA and renumber everything else that follows, second by Comm. Santos.

In discussion, Comm. Limtiaco referred to other sections in the ECA that refer to “not used” or “reserved” and wanted to amend the motion to include removal of any and all references that are not specific, not used or specifically reserved or any similar language, second by Comm. Sanchez for discussion.

In discussion Comm. Sanchez asked management if this blanket motion to remove these types of non-specific references will be an issue. CFO John Kim said that all these references are cross referencing each other. If we change the sequences and don’t properly change the reference mistakes can be made. Comm. Santos said don’t make a mistake and that this is a \$400M contract. GM Benavente said renumbering will take up a lot more effort to correct other numbered references in other parts of the contract. Management has been vetting this for many weeks but management will do what the CCU wants.

Comm. Limtiaco does not understand why these unused sections were not removed at the initial review. Comm. Duenas asked if Article 3 is removed will it make any difference. Comm. Sanchez said if there is any reference in Article 3 in the other parts of the ECA what would it mean? Comm. Duenas is asking for a response.

Comm. Santos said this contract is the single largest contract that this agency has done and we will do it right. The CCU will address all their concerns, we will recess and management will come back with a clean contract with all the changes. It was mentioned that KEPCO must be advised.

Comm. Guthertz said she read the ECA twice and she also noticed Article 3 and other areas of the ECA with similar notations. She agrees if it is not needed why include it and create confusion. As another

alternative, management should go back to each section and both parties sign off that these sections do not mean anything.

CFO Kim said this is a boiler plate template that is used and if say Article 3 is left out the numerical sequence will be out of sequence and anyone reading it would ask what happened to the missing article. The reference “reserved” is just an audit mechanism.

Comm. Sanchez asked Legal Counsel why we would agree to a boiler plate where something is missing. Comm. Limtiaco said a boiler plate is a starting point and is reviewed and cleaned up.

Legal Counsel Graham said it is best to just delete the unused article and renumber everything.

On the amendment to amend the motion to include removal / deletion of any and all references that are not used specifically or noted as reserved or any similar language, the vote was unanimous

On the main motion as amended the vote was unanimous

Article 4 – Sale and Purchase of Capacity and Energy. Ms. Sablan said this article is to create capacity and for GPA to buy that energy and capacity.

Comm. Limtiaco asked about the fuel supply, Section 4.3.1[a] and asked if once the pipeline is in service from Cabras to Ukudu why is there language here about transportation. Legal Counsel Botha said GPA’s obligation is to transport up to the plant via the pipeline or otherwise. He said his concern some of the savings associated with this plant is eliminating using fuel tankers. GM Benavente said there is no way that we can truck enough fuel via tankers and that fuel will be delivered via the pipeline. MANAGEMENT WILL ASK IF THE WORD TRANSPORTATION BE CHANGED TO DELIVERY.

Re Section 4.3.1 [h] Comm. Limtiaco asked if this refence just the term of the ECA. GM Benavente said KEPCO will construct the pipeline and will be transferred to GPA for operation and maintenance during the 25-year ECA term. KEPCO just wants it clear that it’s GPA’s responsibility to maintain the pipeline. Comm. Sanchez asked what [x] means and Ms. Sablan explained that [x] is just a numbering reference i.e. “first” and [y] means “second”.

Re 4.3.2 [a][b] - Re yellow highlighted references Comm. Limtiaco asked if this information ref MMBtu will be filled in at a later date? Ms. Sablan confirmed that yes GPA needs to supply this number to them on this date.

Re 4.5[d] Comm. Limtiaco asked if the “Excusable Event” referenced here is specific or identified? Comm. Sanchez read the definition that an excusable event is noted only twice – 30 days prior to the bid date and at the financial closure.

Re 4.5 [e] relative to fuel savings bonus, Comm. Sanchez asked for an explanation. GM Benavente said the project company asked to include a bonus clause here but he did not agree. However, the GM did agree to leave this clause in the ECA just in case there is an opportunity that the project company implements things that will result in savings.

Re 4.7 [c] relative to non-conforming fuel Comm. Limtiaco asked if there is anything in GPA's fuel contract that protects GPA for this? GM Benavente said that the fuel is tested before it leaves Singapore. Ms. Sablan added that GPA tests the fuel at the tank point and there should not be any issue for conformance after this point.

#### Article 5 - Terms, Defaults and Remedies

Article 5.1 [a] – Terms of Agreement. Comm. Limtiaco noticed that some articles are effective upon the agreement and others after the financial close. Comm. Limtiaco asked for an explanation. Legal Counsel Botha said the definitions and interpretations are effective upon the signing of the agreement and Article 4 does not become effective until the financial close. Article 5 does apply because it speaks to the terms and remedies. Article 6 the covenants except for pre-existing conditions will not apply until financial close Article 8&9 does not apply until after financial close. Comm. Limtiaco said if they are not able to finance the plant then they are in default and the \$3M bid bond will remain with GPA. Ms. Sablan said subject to the actual financial close date, and there are some allowances for delays, dates may move and for this reason everything happens after that date.

Article 5.1[b] – Comm. Limtiaco asked if they making the requirements of the agreement that “is shall be extended”. Legal Counsel said that this mutual agreement will be discussion at the end of the 21<sup>st</sup> contract year. The language is “shall” because management wants to begin to discuss early. Legal Counsel said sufficient time is important to allow to exchange / discuss with each other should investments be needed. Ms. Sablan also said this is also important because there is the \$15M transfer security before the end of term and this is good to decide if this will happen at this time or later. They are supposed to make sure the facility is at its best condition at the end of the contract. Legal Counsel added that at upon financial close and then after this they still need to put up the \$63.8M performance bond.

5.2 – Project Company Events of Default. Comm. Limtiaco asked about the LLA, land lease agreement. Legal Counsel said there is a lease for 25 acres to the KEPCO so that during the course of the 25 year the property must be kept clean. GM Benavente said that this is necessary for them to finance it and then it all comes back to GPA at the end. Comm. Limtiaco asked if this lease is available to mortgage. Comm. Sanchez said they can mortgage their portion of the lease. GM said their financing will be 80% of the facility and 20% equity. It was mentioned that the lease is \$100 per year.

5.2 [i] – Re threshold capacity. Comm. Limtiaco asked for clarification. GM Benavente said this gives them an opportunity for not meeting the threshold capacity. There is a penalty for not meeting this and this is an issue for default. Comm. Limtiaco said 15 months is over a year and is this something that GPA can accept with plant shutdowns being planned. Comm. Limtiaco said his concern is if GPA has to fire up plants that are more expensive GPA would be eating into the savings that is planned. GM Benavente said there is also a penalty for efficiency so it an incentive for them to get back up more quickly.

5.2 [j] – Re 285 outage hours in each month of a period of 6 months. Comm. Limtiaco wanted clarification re maximum of 15 months – is this reasonable and does it eat into the projected savings to the ratepayer. GM said there is capacity and efficiency penalties. Comm. Sanchez asked of the penalty sufficient to cover cost to ratepayers. Ms. Sablan said there is a portion on the fuel cost allocation that says if they

are not able to operation at 100% then the heat rate calculation. If there is a loss, the penalty would be the differential.

The Chairman called for a 5-minute break; it was 8:10 p.m. At 8:20 p.m. the Chairman called the meeting back to order.

Article 5.2 [s] Comm. Santos asked the name of the Lender's agent – Legal Counsel said this is not known at this time.

Article 5.4 [a] – Early Termination and Termination for Prolonged Force Majeure. Comm. Limtiaco asked for clarification. CFO Kim said this was a special request by GPA. Legal Counsel said GovGuam reserves the right to protect itself should they want to terminate. Comm. Duenas said there is a set amount set forth in Schedule 10.

Article 5.5[d].[e] – Termination Notices and Rights – Comm. Limtiaco cited verbiage that “the Parties will commence working together diligently and in good faith to effect such transfer within [45] days of GPA's receipt of Project Company's Termination Notice, or as soon as practicable but otherwise no later than [90] days thereafter” – the Comm. Asked if this was a reasonable timeline. Legal Counsel said that this is just the point. He said if we do this, we better have all our ducks in a row – lenders don't like termination for convenience that is why the timeline is short.

Article 5.5 [i] – Comm. Limtiaco asked clarification on referenced Connection Agreement. Legal Counsel said that this contemplates that for some reason GPA wants to stop the agreement. This gives the project company the option to sell the grid to someone else to try to get their investment back. From the lenders agreement this is the intent. Comm. Limtiaco asked what scenario would apply relative to this connection agreement. Ms. Sablan said in the instance if GPA defaults and cannot pay. All this is saying is they are allowed to access the grid because there is no other customer but GPA. Comm. Sanchez said this is a remnant clause that protects the lender – gives them comfort that they can recover. We have to default to trigger this clause.

Discussion followed through the entirety of Article 6 but not detailed here. The audio is available upon request for detailed review.

## **5. ANNOUNCEMENTS**

### **6.1 Next CCU Meetings**

The Chairman announced that this meeting will be recessed and will resume tomorrow at 3 p.m., August 30, 2019. He added that September meeting dates are a GWA Work Session on Sept. 17; a GPA Work Session on Sept 19 and the Regular Monthly CCU meeting on Sept. 24.

The Chairman called for a recess until 3 p.m., tomorrow August 30<sup>th</sup>. The time was 9:07 p.m.

## **CONTINUATION of Regular Board Meeting of August 29, 2019 For GUAM POWER AUTHORITY CCU Conference Room, Gloria B. Nelson Public Service Building**

### 3:30 p.m., August 30, 2019

The Chairman called the meeting to order at 3:53 p.m. He said this meeting is a continuation meeting from August 29th which was recessed until today. He said the CCU is reviewing the Energy Conversion Agreement [ECA] with KEPCO for the new 198MW power plant.

Those present include:

#### Commissioners:

Joseph T. Duenas	CCU Chairman
Francis E. Santos	CCU Vice Chairman
Michael T. Limtiaco	CCU Secretary
Judith P. Guthertz	CCU Treasurer
Simon A. Sanchez	Commissioner

#### Executive Mgmt.:

John Benavente	GM / GPA
John Kim	CFO / GPA
Graham Botha	CFO / GPA
Tricee Limtiaco	AGMA / GPA
Melinda Mafnas	AGMO / GPA

#### Management & Staff:

Art Perez	Public Information Officer / GPA
Jennifer Sablan	Manager SPORD / GPA
Joyce Sayama	Mgmt. Analyst / GPA Ex. Office
Lou Sablan	Board Secretary / CCU

Chairman Duenas updated that today oversight Chairman Sen. Clynt Ridgell sent a letter to the Commission asking for their consideration to postpone approval of the ECA Contract with KEPCO until after a scheduled Public Hearing scheduled for Sept. 10 from 9-12 p.m. As background info the Chairman said the Commission did meet with the Governors [both previous and current] and Legislature during the entire process of project i.e. procuring the land etc. In doing so, we were transparent about what we were doing and why. We did not have the handle on money yet at that time so this was not part of the discussion. The letter from Senator Clynt Ridgell, the Oversight Chair for GPA was discussed all Commissioners gave their thoughts.

Comm. Guthertz said this will set a precedence and any future actions that require us to take a vote and where the legislature writes us to request to postpone / delay action what do we do then. She said we need to think about this.

Comm. Sanchez said having been a Senator himself, he respect and understand where Senator Ridgell is coming from. He is trying to exercise his due diligence of oversight but said he also respects the laws of Guam that 50 years ago said Guam Power Authority shall be responsible for the power system. The laws of Guam 25 years ago authorized Guam Power Authority to enter into public private partnerships

to solve energy problems. And, the Guam Power Authority has successfully entered into public private partnerships – procured, awarded and seen them constructed and paid off just as was intended by the law. Some include 120 MW of new solar power, 25MW of existing solar and the laws of Guam give GPA those powers on behalf of the people of Guam. The laws of Guam further removed the Legislature and Governor from the decision making for the utilities by creating an elected board, directly elected by the people to govern GPA and out of respect for those laws, we offer our services to implement policy. He said he does not think the Senator intends to ignore the laws of Guam. Right now, we the Commission, are in the process of carrying out this law. In addition, the Commission respects that this matter will be reviewed by another rate setting, independent body, the Guam Public Utilities Commission for their review and approval. Guam Power Authority has demonstrated many times their ability to execute public private partnership. We are implementing the laws of Guam as dictated by the people of Guam by their vote. He asks Senator Ridgell to allow the Commission do its job and asks Senator Ridgell to respect the laws of Guam that are on the books.

Comm. Limtiaco agreed with Comm. Sanchez but moreover, the CCU/GPA did its due diligence to reach out to the public and did specific presentations to the Administration & Legislature. The Senator could have called the Commission to ask clarifying questions or to attend our meetings or to follow-up with status way before now. Comm. recommended asking the senator and other senators to come to our continuation meetings re New Power Plant. We could recess the meetings as many times as we have to in order to answer any of their questions but it should not prevent us from making our decision from what we are doing going through the ECA and evaluating its content.

Comm. Santos commented that Sen. Ridgell's staff was in attendance at last night's meeting why not him? We can acknowledge and attend the oversight hearing on Sept 10 and respond to his concerns. If there are any specific questions, provide them in advance so we can prepare. We cannot stop the work that has already been begun.

Comm. Sanchez further added that we are not new to this, in our case, the legislature passed these laws and delegated the authority over GPA to us. They created the PUC and public private partnerships all more than decades old. The legislature has delegated authority to entities like us. More importantly we have been elected directly by the same people the elected the Senator to implement the laws of Guam by any objective measure these laws have resulted in a better power and water system today than what we had before. In its wisdom the Legislature decided to have the governance be decided by the ratepayers of Guam and created the Consolidated Commission on Utilities. We have a duty to perform by law and know the clock is ticking with USEPA and have a recommendation by management that says the best way to reduce power to ratepayers is to implement and award this procurement of this type of generation mix in order to implement other policies like renewable energy growth. I trust this group to make the best decision possible.

Comm. Duenas said he will include the Commissioner's comments in his response letter adding that we still need to work on a resolution after the ECA review and may not complete that today. He said if we recess tonight's meeting to another date, he would invite Sen. Ridgell to that meeting

Project Manager Jennifer Sablan mentioned that she invited GPA's technical consultant representative to attend the meeting via conference call and he joined the meeting at this time.



Comm. Sanchez asked status of the feasibility study i.e. forecasted rates. Comm. Sanchez stated for the record that GM and CFO's understanding if there are any adjustments needed that if there are any change your expectation that the savings will go up and not down. GM said the savings is what it is under RFO. Comm. Duenas asked when will the feasibility study be complete and CFO Kim said next week. Comm. Sanchez reiterated again for the record to the GM and CFO whatever adjustment you expect from that study the savings would be higher and the response was yes.

The ECA review continued with discussion with Article 7 – 12, not detailed here. The audio for this portion of the Minutes [8.29.19 Cont'd 8/30/19 Reg1] is available for review upon request.

Comm. Duenas commented on section 13 and forward saying these sections deals with technical issues. The audio for this portion of Minute [8.29.19 Cont'd 8/30/19 Reg1] is available for review upon request.

Comm. Limtiaco commented on the schedules on page 419 of board books. He wanted confirmation that management and the consultants have reviewed all the schedules provided and that management is asking CCU to approve. Legal Counsel said yes.

Comm. Santos commented that every page on the ECA must have initial boxes to be initialed by representatives of both parties. Legal Counsel confirmed his understanding.

There was discussion on the CCU response to Senator Clynt Ridgell, Comm. Santos said this matter is delegated to the CCU but the actions taken are owned by and the responsibility of the CCU and does not feel that it is necessary to explain.

Comm. Sanchez said now that management has reviewed the contract do, we now give management authorization to send it to the PUC.

Comm. Santos asked management when can the updated version of the ECA be made available and when we can meet again to review it.

Comm. Limtiaco recommended to tackle resolution now; and invite everybody to the next meeting including the senators. This is a public meeting / hearing and why not invite them to attend

Comm. Guthertz asked if the Commission plans to vote on Wednesday because she would not be able to attend. After some discussion, it was decided to continue this meeting on Tuesday next week at 6:30 p.m.

Comm. Santos asked for a 5-minute recess. It was 6:15 p.m. The meeting was resumed at 6:25p.m.

In discussion Comm. Limitaco said what he liked about Comm. Sanchez's version is that it sets out the project chronologically.

Comm. Santos moved to accept Comm. Sanchez proposed changes to Resolution 2019-13 from management for the purpose of working on a new version 8, second by Comm. Limitaco. The vote was 5 ayes, unanimous.

Comm. Limtiaco motioned to amend Comm. Sanchez's version of Resolution 2019-13 for new version 8, second by Comm. Santos.

Board Secretary Sablan was asked to combine the edits recommended by Comm. Sanchez.

Comm. Sanchez asked for a 5-minute recess, while the Resolution was being updated. It was 6:40 p.m. The meeting reconvened at 6:50 p.m.

The new version 8 was presented and reviewed by the Commission and management with further changes.

It was decided to recess this meeting and to reconvene again giving management time to make the updated changes to the ECA and Resolution 2019-13 for final review.

Comm. Guthertz moved to recess the meeting until 6:30 p.m., Tues., Sept. 3, second by Comm. Sanchez.

The time was 8:20 p.m.

**CONTINUATION of Regular Board Meeting of August 29, 2019  
For GUAM POWER AUTHORITY  
CCU Conference Room, Gloria B. Nelson Public Service Building  
6:30 p.m., September 3, 2019**

The Chairman called the meeting to order on September 3, 2019 at 6:34 p.m. He said this meeting is a continuation meeting from August 29 which was reconvened & recessed on August 30 and reconvened again today. He said the CCU is reviewing the Energy Conversion Agreement [ECA] with KEPCO for the new 198MW power plant.

Those present include:

**Commissioners:**

Joseph T. Duenas	CCU Chairman
Francis E. Santos	CCU Vice Chairman
Michael T. Limtiaco	CCU Secretary
Judith P. Guthertz	CCU Treasurer
Simon A. Sanchez	Commissioner

**Executive Mgmt.:**

John Benavente	GM / GPA
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Tricee Limtiaco	AGMA / GPA
Melinda Mafnas	AGMO / GPA
John Cruz	AGMET / GPA
John Kim	CFO / GPA
Graham Botha	Legal Counsel /GPA
Kelly Clark	Legal Counsel / GWA

**Management & Staff:**

Art Perez	Public Information Officer / GPA
Jennifer Sablan	Manager SPORD / GPA
Heidi Ballendorf	Public Information Officer / GWA
Joyce Sayama	Management Analyst / Ex. Office, GPA
Lou Sablan	Board Secretary / CCU

**Guest:**

Eloy Hara	Former Commissioner
Clynt Ridgell	Senator
Jeff Johnson	PUC

Sen. Ridgell said he would like to formerly enter for the record his public comment / opposition letter to the CCU (copy in file). His letter stated that he has learned that KEWP and KEPCO has won the bid for the new power plant and that KEWP is the same company that was managing Cabras 3 during the explosion. He objects to the approval of the KEPCO Contract because he does not feel that GPA should give a contract to a company that was operating a plant that exploded.

Initially the Senator started to leave but Comm. Simon asked him if he would please stay to respond to questions from the Commission or for the Commission to respond to questions that he may have. The Senator said he did have some questions from the previous oversight meeting that CCU/GPA still has not responded to. The Senator said that he respects that the CCU is an elected body and hopes that they too will respect his right as a ratepayer.

Comm. Duenas clarified that the company that bid is Korea Electric Power Company (KEPCO) not Korea East West Power (KEWP) the firm that was GPA's IPP during the Cabras 3&4 explosion. He added that KEWP is a subsidiary of KEPCO and is not involved in the contract.

The Senator was very upset and stated that he did not come to this meeting to have a debate or for the CCU to conduct an oversight hearing on him. After a long exchange with Comm. Sanchez the Senator walked out

Comm. Sanchez asked for a 20-minute recess to allow the CCU time to review the changes on the contract and resolution. It was 6:55 p.m. The meeting resumed at 7:15 p.m.

Comm. Sanchez said without taking too much time he wanted to address a number of issues that Sen, Ridgell asked in public. In the absence of any questions from him we can respond to questions he posed on Facebook or on a recent press release. On a section of the press release on the power plant

Sen. Ridgell was concerned what the new plant would cost ratepayers and no ceiling was set for the cost and GPA could be locked into an expensive power purchase agreement. Comm. Sanchez asked GM Benavente if he is allowed to put a ceiling on the bid. GM Benavente said no but you would select the lowest bidder. When you start to cap things like this what it does it limits the number of potential bidders. The PUC ordered GPA to make the plant agnostic – technology neutral. Capping this bid would limit the options. Did any of the bidders bid for 100% renewable? The GM said no. Comm. Sanchez asked why and the GM said you would need a huge piece of land. It was mentioned that there was seven bidders. Comm. Limtiaco asked if there was one single location that you can great 180 MW of photovoltaic solar energy. GM said that when he did this calculation the amount of land needed is about 4000 acres. Comm. Limtiaco said so you would have to place multiple solar farms all over the island and would it be expensive for interconnections and the GM said yes and a substantial amount of batteries. Comm. Sanchez said at the hearing and press release commented re the LNG pipeline that it would require a storage and gasification facility at the port the cost of which has not been factored in for the new power plant. He asked the GM if the new plant will reduce power by 8% as noted on the presentation that the GM gave to the Senator in March 2019. Comm. Sanchez asked if the floating FSRU was not factored into the cost and the GM said yes because it was already factored in. Comm. Limtiaco asked if GPA provided Sen. Ridgell the LNG study and did it include the cost of the FSRU. The GM said yes. Sen. Ridgell said he did not get the response to his questions at his oversight hearing. The GM stated for the record that the responses to his questions were given to him on June 3. Comm. Sanchez said the Senator also said in his May press release that he does not think LNG as power source is feasible for Guam. Did GPA do a study that LNG plant could be done on Guam and the GM said yes – there's the Integrated Resources study the LNG study. Comm. Sanchez asked if the PUC ever question whether LNG was feasible for Guam. The GM said that they agreed to include the building of the pipeline related to the new plant. Comm. Sanchez asked confirmation if the purchase and rezoning of the land for the new plant was vetted by the community and the GM said yes. Comm. Sanchez said Sen. Ridgell has been oversight for 9 mos. now. He asked GM Benavente if he ever offered the Commission or GPA or the public any alternatives to management's plans. GM Benavente said no.

Comm. Limtiaco said that the CCU have been going on 4 days now discussing the ECA; he asked the GM who owns this power plant and the GM responded Korea East West Power Company owns it. Comm. Limtiaco asked if they are required to insure it. The GM said yes and they need to put in at least a 20% equity. Comm. Limtiaco asked if it explodes due to negligence is GPA liable and the GM said no. The GM said throughout this who BOT journey there are many penalties that could be imposed to KEPCO; Comm. Limtiaco asked if they are insured and if they don't perform for whatever reason - what would the cost be for GPA to buy the plant if worst case scenario and we had to hire someone else. The GM said it would cost the balance of the bank note or 120Million. Comm. Limitaco was alluding to Sen. Ridgell's concerns about the cost of the plant and what he needs to know is that the contractor takes on all the responsibility and the this should be pointed out.

Comm. Sanchez said this contract protects the ratepayer for any failures.

Comm. Santos shared that in 2017 KEPCO asset value is 181Trillion; sales volume 507Billion; KEWP is one of 16 subsidiaries. KEPCO is also owned by the Korean government

Comm. Sanchez added that there seems to be a lot of companies around the world that believes this company KEPCO is viable. Comm. Sanchez asked how many ECA's has GPA done through the years and the GM said MEC, TEMES and PRUVIENT - this one would be #4. Comm. Sanchez asked how many IPP and the response was (3) - DanDan, 60MG KEPCO, 60MG Hanwha

Comm. Sanchez commented that since 1996 we have successfully initiated and entered into ECA's for 23 years of experience in doing IPP's or ECA's.

Comm. Guthertz said she would like to hear from the GM - looking at this contract besides saving to ratepayers how does this contract impact the island? GM Benavente said – 1) USEPA and the penalties that GPA will incur without the plant 2) load growth this plant will help relieve the older aging machines [by 2023 GPA will not be able to handle growth without this plant] 3).reliability and 4) renewables If we don't build this plant it will be an issue with reliability and growing our renewable portfolio to reach legislative mandates. It was mentioned that they don't want the youth and inexperience of the oversight chair to block something that can help save ratepayers; grandstanding; no background on energy and he even admits it. Comm. Guthertz said that with this new plant we can feel comfortable welcoming investors;

Comm. Sanchez said he has reviewed the ECA and all the changes that CCU wanted incorporated is in there and recommends that CCU review the resolution.

Comm. Duenas said every page of the ECA must have an initial block at the bottom as suggested by Comm. Santos.

Comm. Sanchez motioned to approve Resolution 2019-13 relative to approving ECA, second by Comm. Santos.

The Commissioners proceeded to review each whereas in the resolution

Comm. Duenas noted for the record that this is the largest procurement with no procurement protest and said this is an accomplishment.

On motion the vote was 5-ayes and the Resolution passed unanimously

## **6. ADJOURNMENT**

There being no other business to bring before the Commission, the meeting adjourned at 8:41 p.m.

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Attested:

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JOSEPH T. DUENAS, Chairman

\_\_\_\_\_  
MICHAEL T. LIMTIACO Secretary

# GENERAL MANAGER'S REPORT

## MARCH 2020

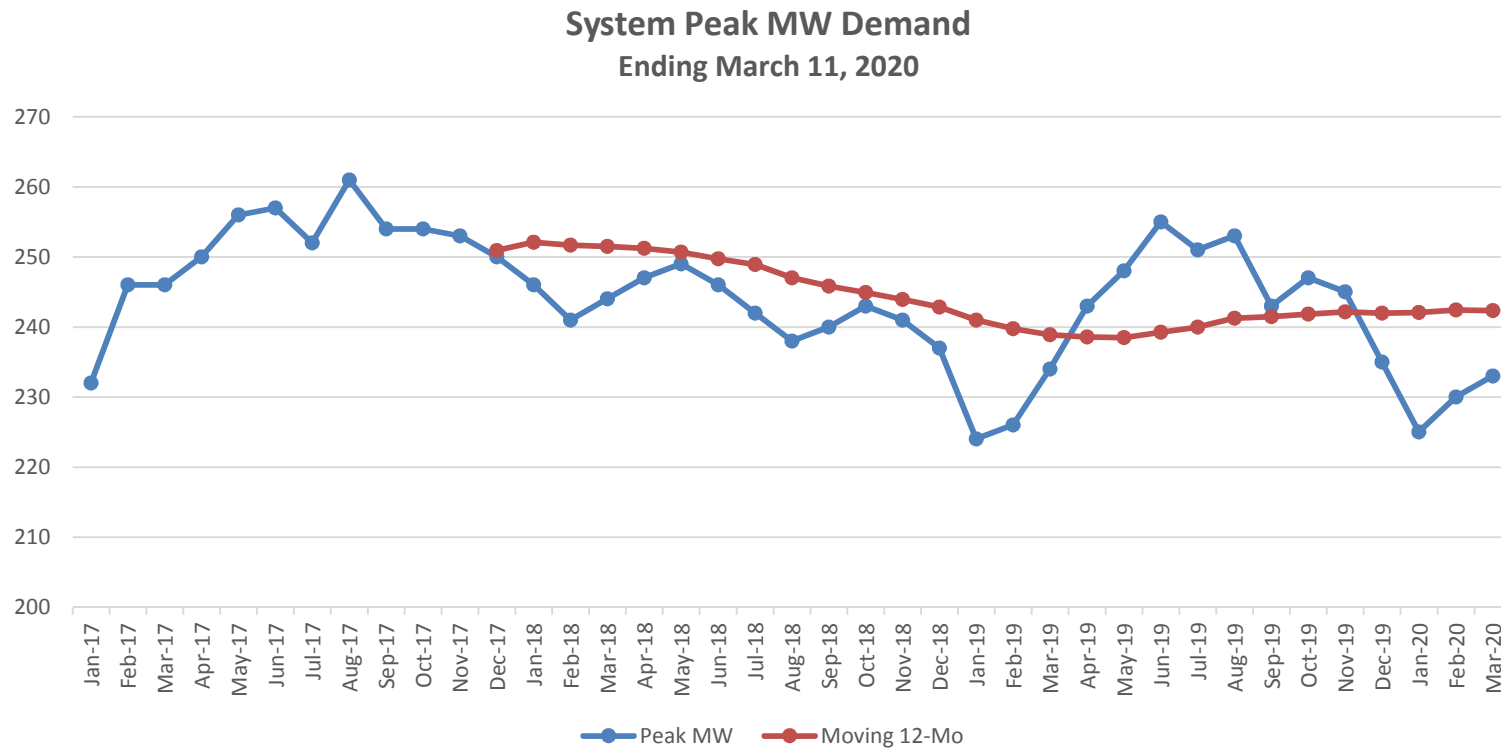




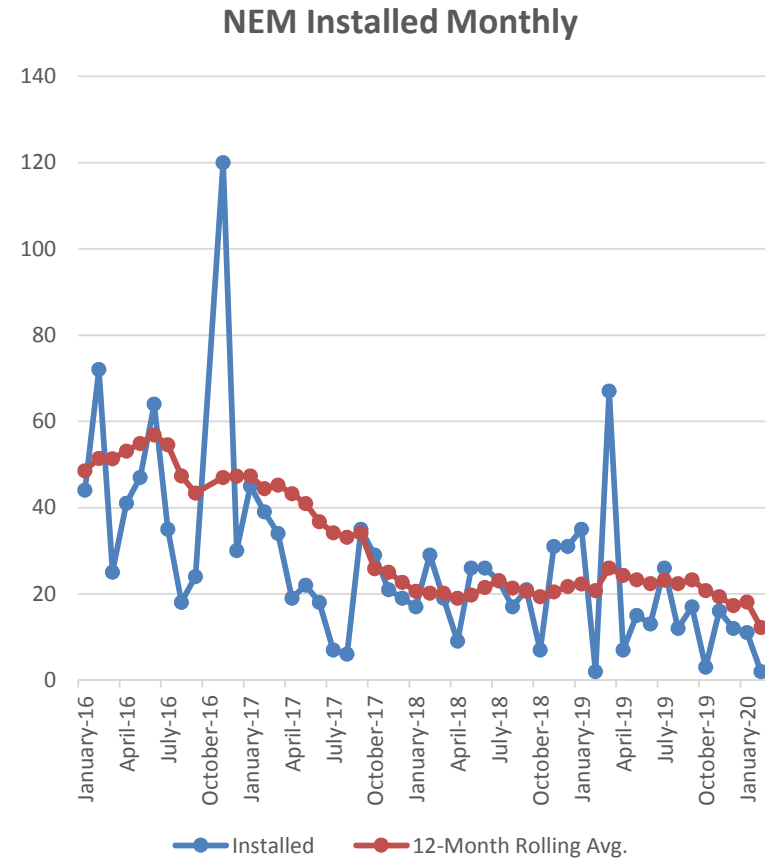
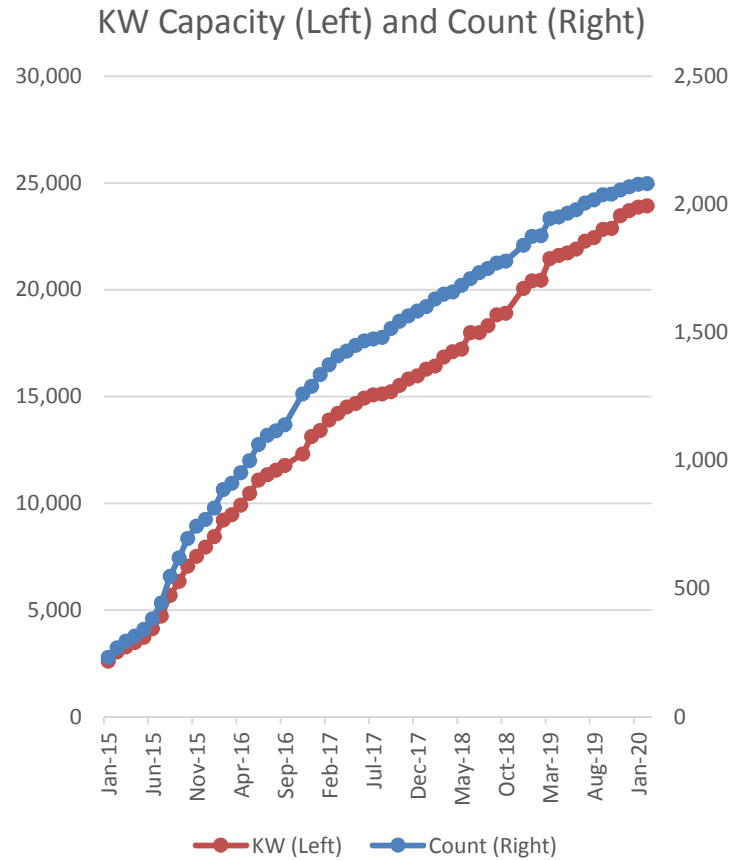
1. **Generation System:** The following is the generation forecast for April 2020:

Projected Available Capacity: 383 MW  
 Projected Demand: 243 MW  
 Anticipated Reserve Margin: 140 MW

Cabras Unit 2, 35 Days overhaul has been postponed due to COVID-19 until the end of the year



## 2. Net Metering (NEM) Growth Thru February 2020:



# Demand Side Management (DSM)

4

3. Program directly reduces energy cost to customer at a one-time fixed rebate. These expenses funded from base rate. I have added \$500K from FY 2020 budget to cover expenses thru March 2020 in order to provide time for PUC to approve placing DSM under LEAC.

## DSM PROGRAM SUMMARY

Description	FY16	FY17	FY18	FY19	FY20 As of 02/29/20	Total to Date
Regular/OT Pay	\$11,348.80	\$22,256.00	\$26,121.83	\$50,715.19	\$13,706.42	\$124,148.24
Other Contractual	\$28,278.50	\$85,550.05	\$116,977.50	\$3,025.00	-	\$233,831.05
Ads & Radio Announcements	-	-	-	\$7,500.00	\$1,500.00	\$9,000.00
Paid Rebates-Split AC	\$154,700.00	\$557,275.00	\$1,349,825.00	\$1,374,650.00	\$214,225.00	\$3,650,675.00
Paid Rebates- Central AC	\$3,400.00	\$8,200.00	\$4,400.00	\$6,500.00	\$500.00	\$23,000.00
Paid Rebates-Washer/Dryer	\$2,800.00	\$7,425.00	\$57,200.00	\$110,800.00	\$17,000.00	\$195,225.00
<b>Total Expenses</b>	<b>\$200,527.30</b>	<b>\$680,706.05</b>	<b>\$1,554,524.33</b>	<b>\$1,553,190.19</b>	<b>\$246,931.42</b>	<b>\$4,235,879.29</b>
Bank Interest (+)	\$1,676.42	\$1,722.74	\$1,222.29	\$730.05	\$207.64	\$5,351.50
Bank Fees	\$155.00	\$1,032.06	\$1,085.08	\$1,247.54	\$195.00	\$3,519.68



#### 4. Legislative Activity

- **Bill 196-35 (LS)**
  - Authorizing GDOE to enter into a PPA to purchase solar energy from qualified providers.
  - The bill was passed by the Guam Legislature and transmitted to the Governor on Wednesday, March 11, 2020.
- **Bill 315-35 (LS)**
  - This bill sponsored by Senator Ridgell seeks to increase the aggregate capacity limit of twenty percent (20%) for Net Energy measurement calculations and to establish the rate at which customer-generators are to compensated. We believe this bill violates GPA's Bond Covenants and an opinion has been requested from bond counsel.

#### 5. Proposed Petition for Mid-T Adjustment of LEAC Rate:

- After reviewing what GPA's projected fuel cost will be, we request the CCU's approval to petition the PUC for a mid-term adjustment on the LEAC to assist ratepayers impacted financially as a result of circumstances created by the COVID-19 (Coronavirus) pandemic.

#### 6. Updated Integrated Resource Plan (IRP) 2020

- Invitations have been sent out to various individuals in our Island community requesting their participation as a member of GPA's IRP Core Stakeholder Committee. This committee is task to update the IRP that serves as a roadmap to ensure cost-effective, reliable energy plan that provides the lowest electric rates to customers commensurate with a satisfactory level of service. The IRP stakeholder meeting schedule is as follows:



## IRP Schedule:

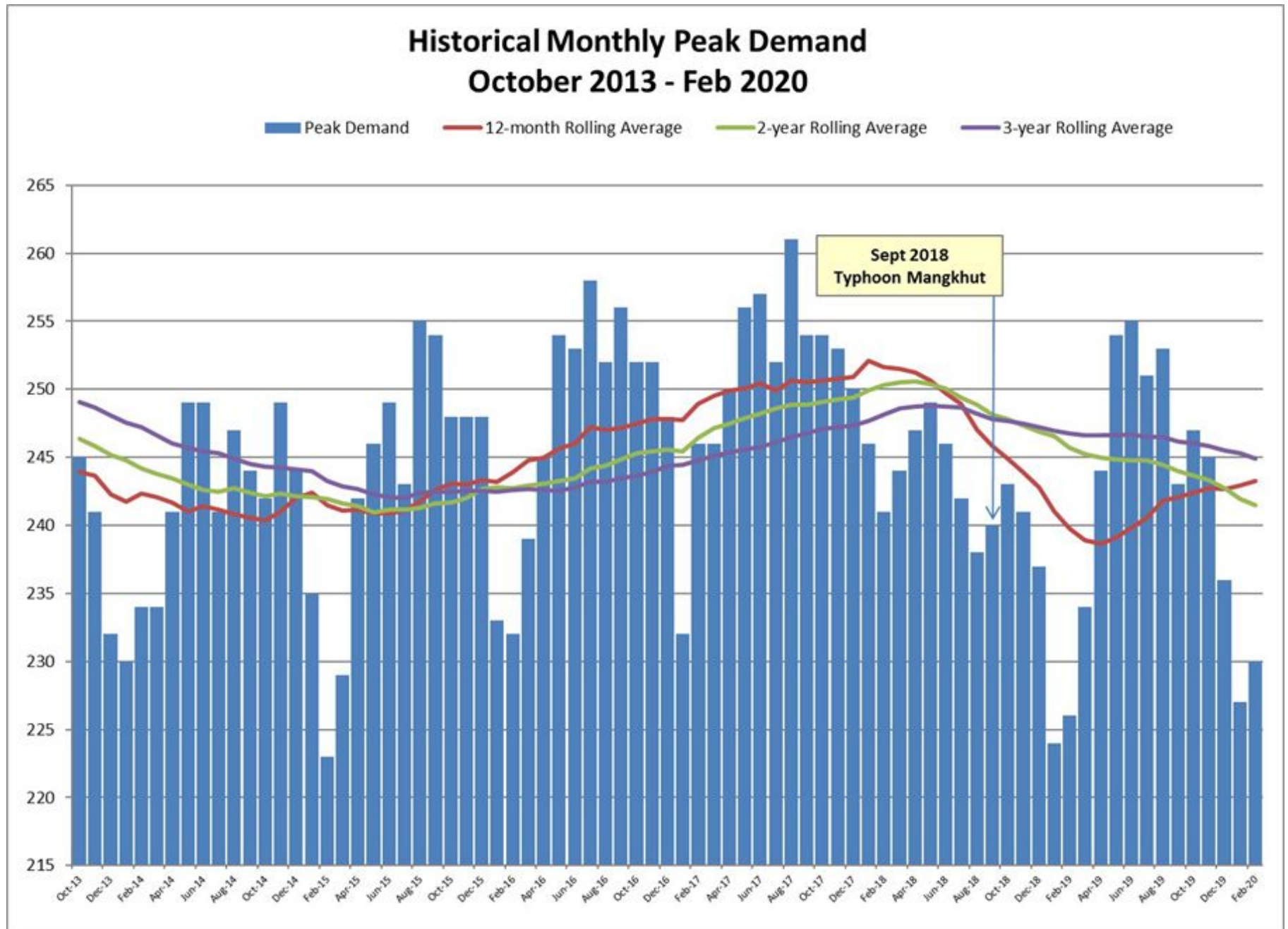
MEETING	DATE	AGENDA
1	4/16/2020 (Thursday) (9:00AM - 4:30PM)	-Introduction to the IRP and Stakeholder Process -Demand and Fuel Price Forecasting -Existing Supply-side Resources -Environmental Regulations -Update on GPA's Power Plant -DSM, Net Metering and GPA's Smart Grid Network -Renewable Energy & Energy Storage Systems -Progress in Other Areas of Operation -[Open Session w/ Stakeholders]
2	4/17/2020 (Fri) (9:00 AM - 12:00 PM)	Stakeholder Breakout Sessions & Feedback
3&4	June 2020	Results

## 7. ENERGY STORAGE SYSTEM (ESS) UPDATE

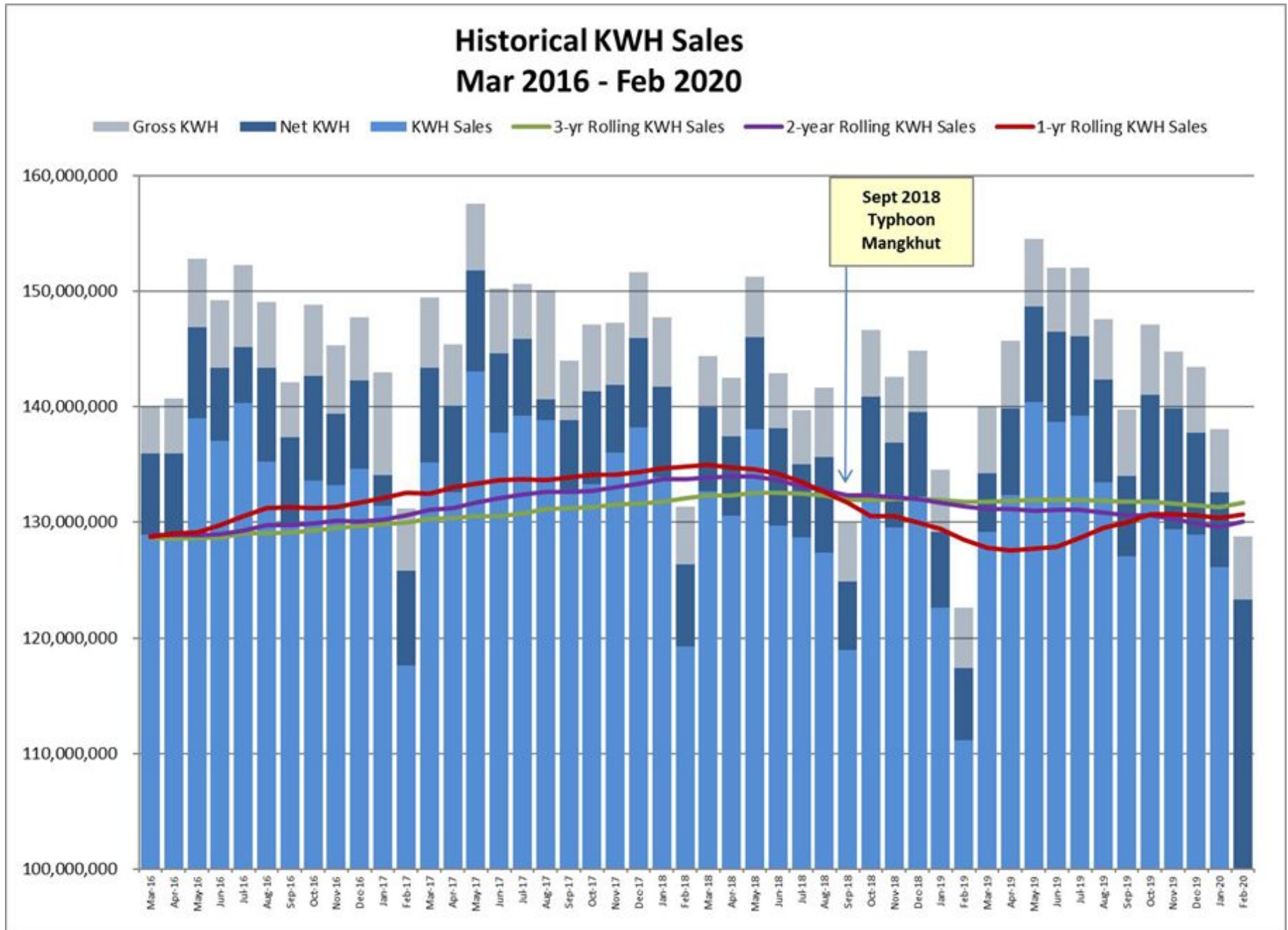
- The testing of the 40 MW ESS at the Talofofo and Hagåtña substations began this month. A third party commissioning team arrived last month to oversee the testing.
- Commissioning for Talofofo began March 3<sup>rd</sup> and is anticipated to be completed by April 14<sup>th</sup>. Commissioning for Hagatna began on March 14<sup>th</sup> and is anticipated to be completed by April 30<sup>th</sup>.

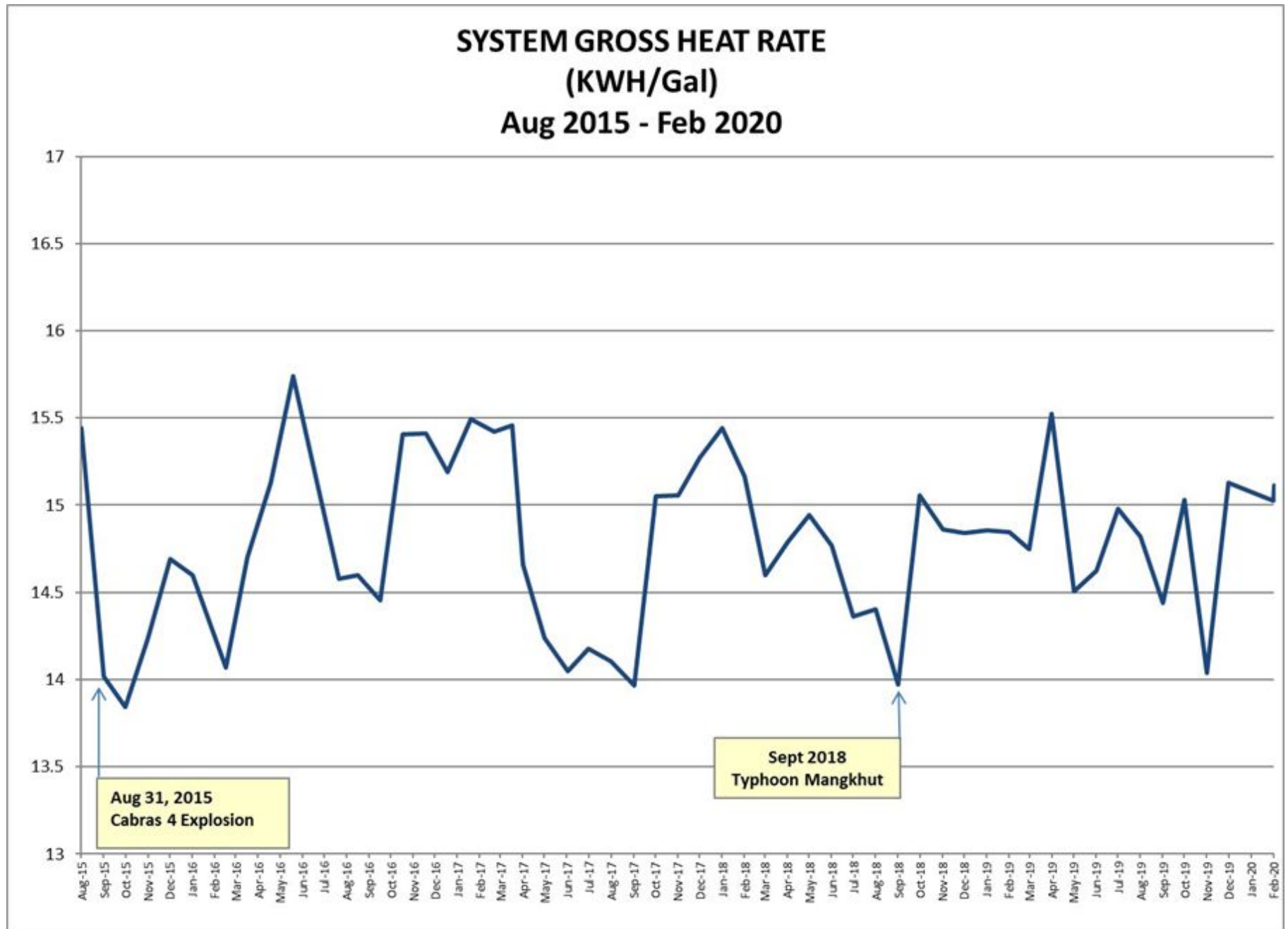
8. The following graphs show the updated system information through Feb 2020:



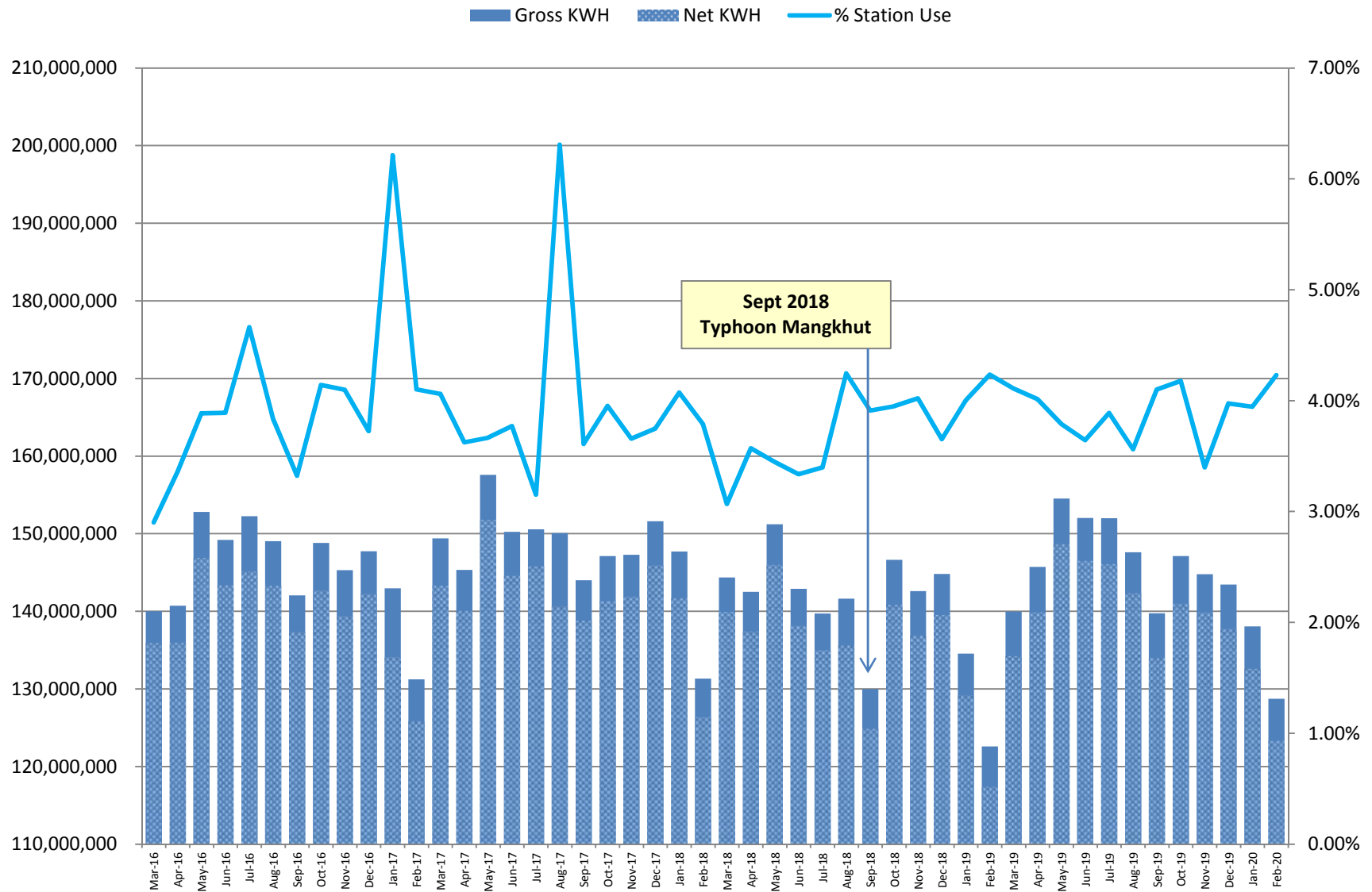




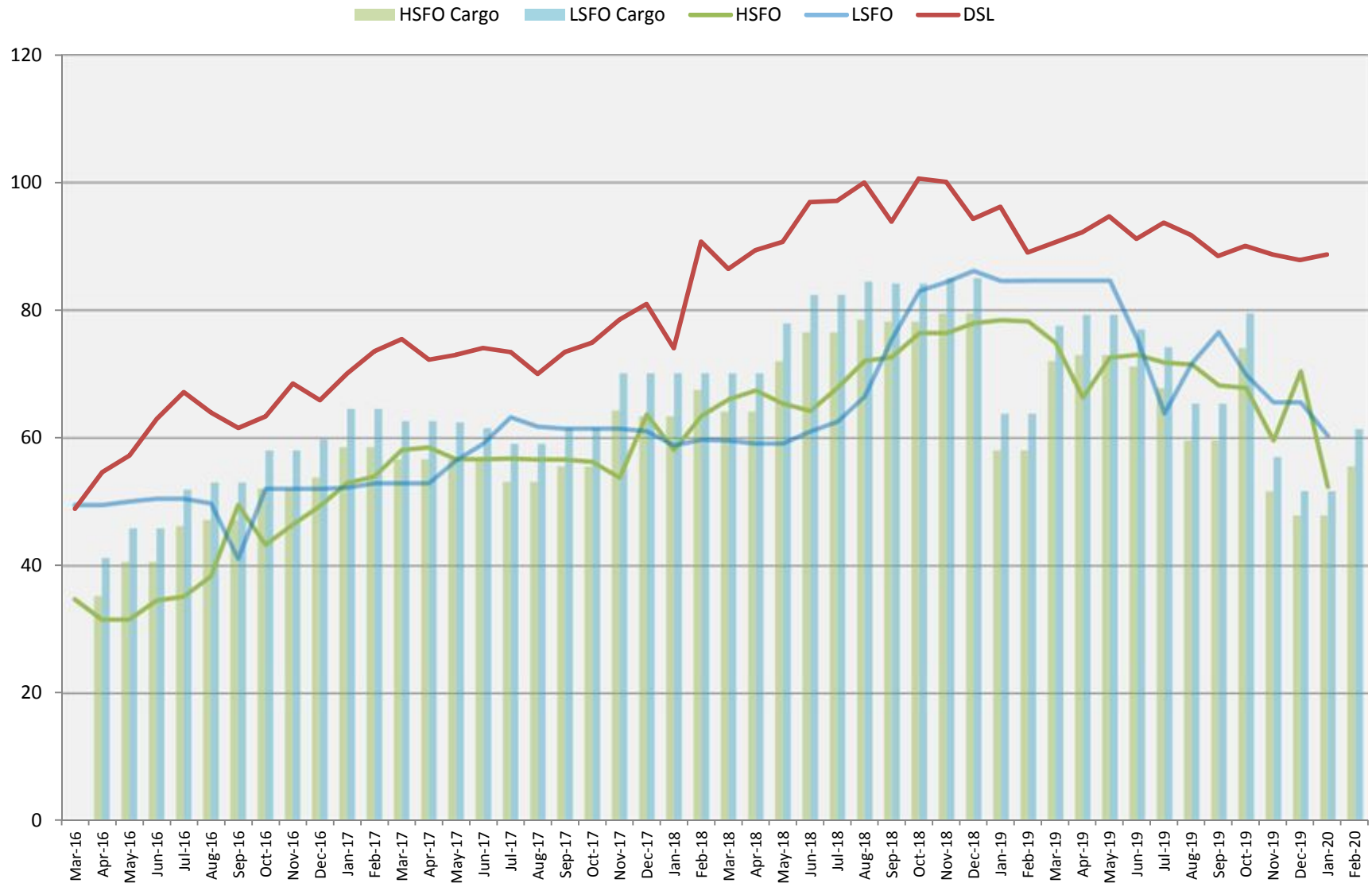




## Gross and Net Generation (KWH) Mar 2016 - Feb 2020



## Fuel Cargo and Fuel Consumption Costs (\$/bbl) Mar 2016 - Feb 2020

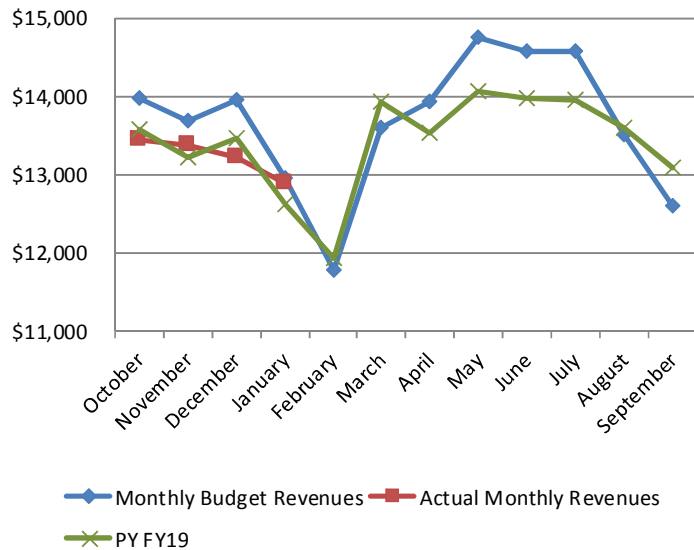


# **CFO FINANCIAL HIGHLIGHTS JANUARY 2020**

# January 2020 Monthly Financial Highlights

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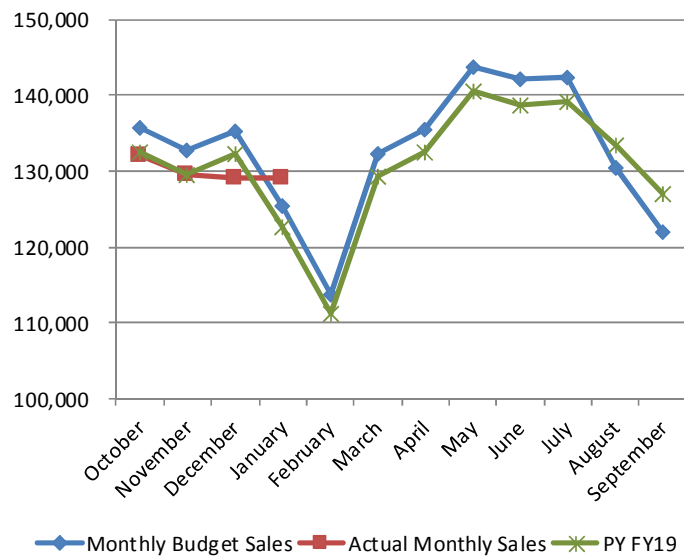
Base Rate Revenue \$000



Through January 31, 2020

	Monthly Budget Revenues \$000	Actual Monthly Revenues	Variance		PY FY19	CY vs PY Variance	
October	\$ 13,968	\$ 13,440	\$ (528)	↓	\$ 13,564	\$ (125)	↓
November	13,682	13,358	\$ (324)	↓	13,203	\$ 155	↑
December	13,940	13,216	\$ (724)	↓	13,467	\$ (251)	↓
January	12,940	12,888	\$ (52)	↓	12,616	\$ 272	↑
February	11,772				11,915		
March	13,587				13,926		
April	13,915				13,520		
May	14,755				14,057		
June	14,558				13,977		
July	14,563				13,951		
August	13,499				13,595		
September	12,585				13,073		
<b>Total</b>	<b>\$ 163,763</b>	<b>\$ 52,902</b>	<b>\$ (1,628)</b>		<b>\$ 160,865</b>	<b>\$ 51</b>	

MWh Sales



Through January 31, 2020

	Monthly Budget Sales mwh	Actual Monthly Sales	Variance		PY FY19	CY vs PY Variance	
October	135,650	131,953	(3,697)	↓	132,489	(536)	↓
November	132,721	129,421	(3,300)	↓	129,537	(116)	↓
December	135,343	128,958	(6,385)	↓	132,190	(3,232)	↓
January	125,456	128,958	3,502	↑	122,590	6,368	↑
February	113,726				111,159		
March	132,206				129,170		
April	135,521				132,396		
May	143,721				140,412		
June	142,093				138,704		
July	142,383				139,204		
August	130,434				133,422		
September	121,840				127,050		
<b>Total</b>	<b>1,591,092</b>	<b>519,290</b>	<b>(9,879)</b>		<b>1,568,322</b>	<b>2,484</b>	

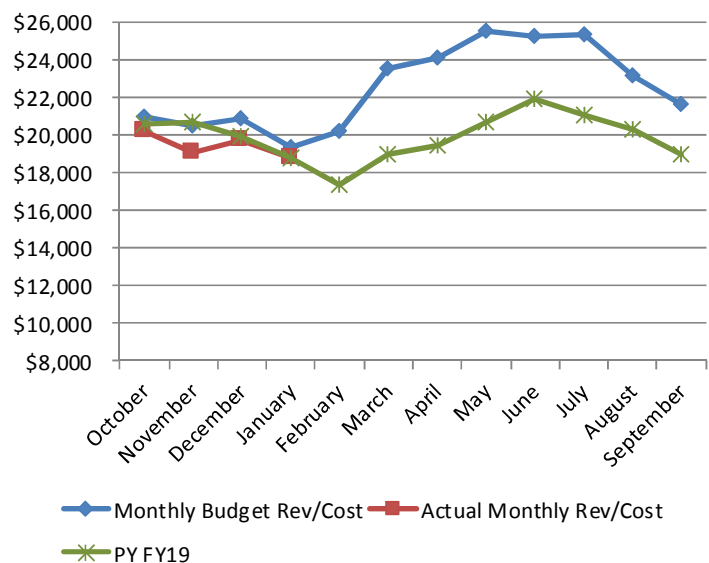




# January 2020 Monthly Financial Highlights (Continued)

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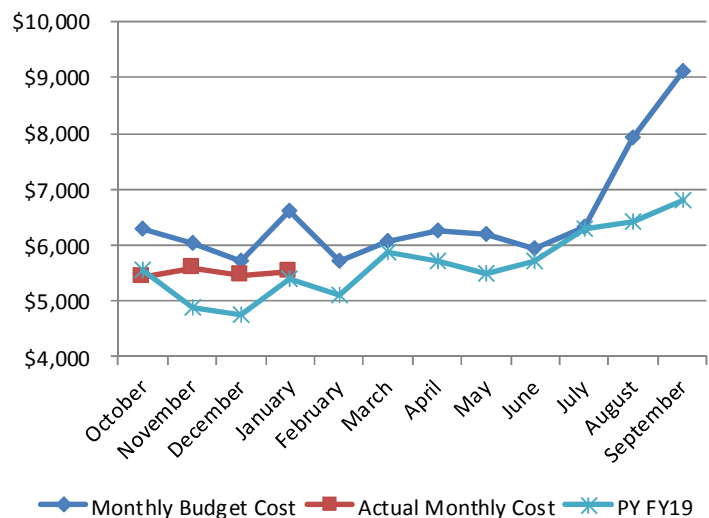
Fuel Revenue/ Cost \$000



Through January 31, 2020

	Monthly Budget \$000	Actual Monthly Rev/Cost	Variance		PY FY19	CY vs PY Variance	
October	\$ 20,923	\$ 20,165	\$ (758)	↓	\$ 20,550	\$ (385)	↓
November	20,471	19,088	\$ (1,383)	↓	20,711	\$ (1,622)	↓
December	20,876	19,697	\$ (1,179)	↓	19,969	\$ (272)	↓
January	19,351	18,820	\$ (531)	↓	18,822	\$ (2)	↓
February	20,219				17,368		
March	23,505				19,017		
April	24,094				19,442		
May	25,552				20,711		
June	25,263				21,932		
July	25,314				21,082		
August	23,190				20,331		
September	21,662				18,935		
<b>Total</b>	<b>\$ 270,418</b>	<b>\$ 77,770</b>	<b>\$ (3,850)</b>		<b>\$ 238,868</b>	<b>\$ (2,281)</b>	

O&amp;M Cost \$000



Through January 31, 2020

	Monthly Budget \$000	Actual Monthly Cost	Variance		PY FY19	CY vs PY Variance	
October	\$ 6,290	5,411	878	↑	5,551	140	↑
November	6,016	5,572	444	↑	4,875	(697)	↓
December	5,725	5,460	265	↑	4,762	(698)	↓
January	6,607	5,521	1,086	↑	5,399	(122)	↓
February	5,701				5,114		
March	6,050				5,869		
April	6,258				5,704		
May	6,179				5,485		
June	5,922				5,703		
July	6,321				6,276		
August	7,908				6,421		
September	9,102				6,797		
<b>Total</b>	<b>\$ 78,079</b>	<b>\$ 21,965</b>	<b>\$ 2,673</b>		<b>\$ 67,956</b>	<b>\$ (1,377)</b>	



# January 2020 Monthly Financial Highlights (Continued)

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Through January 31 , 2020							
	4Q2018	1Q2019	2Q2019	3Q2019	4Q2019	1Q2020	2Q2020
Residential	43,887	43,920	44,144	44,329	44,479	44,203	44,755
Commercial	5,261	5,273	5,291	5,303	5,289	5,154	5,336
Government	1,077	1,090	1,074	1,075	1,070	1,072	1,079
Streetlights	1,152	1,151	1,152	1,138	1,138	1,135	1,126
Navy	1	1	1	1	1	1	1
<b>Total</b>	<b>51,378</b>	<b>51,435</b>	<b>51,662</b>	<b>51,846</b>	<b>51,977</b>	<b>51,565</b>	<b>52,297</b>

Debt service coverage (DSC) calculation-indenture	2015	2016	2017	2018	2019	2020
Senior lien coverage	3.62	3.28	2.65	2.53	1.97	1.77
Aggregate debt service coverage	2.62	3.28	2.65	2.53	1.97	1.77
Debt service coverage (DSC) calculation-IPP as O&M						
Senior lien coverage	2.56	2.45	1.79	1.65	1.64	1.59
Aggregate debt service coverage	1.85	2.45	1.79	1.65	1.64	1.59

Fuel Under Recovery – \$2,193,618



# Issues For Discussion

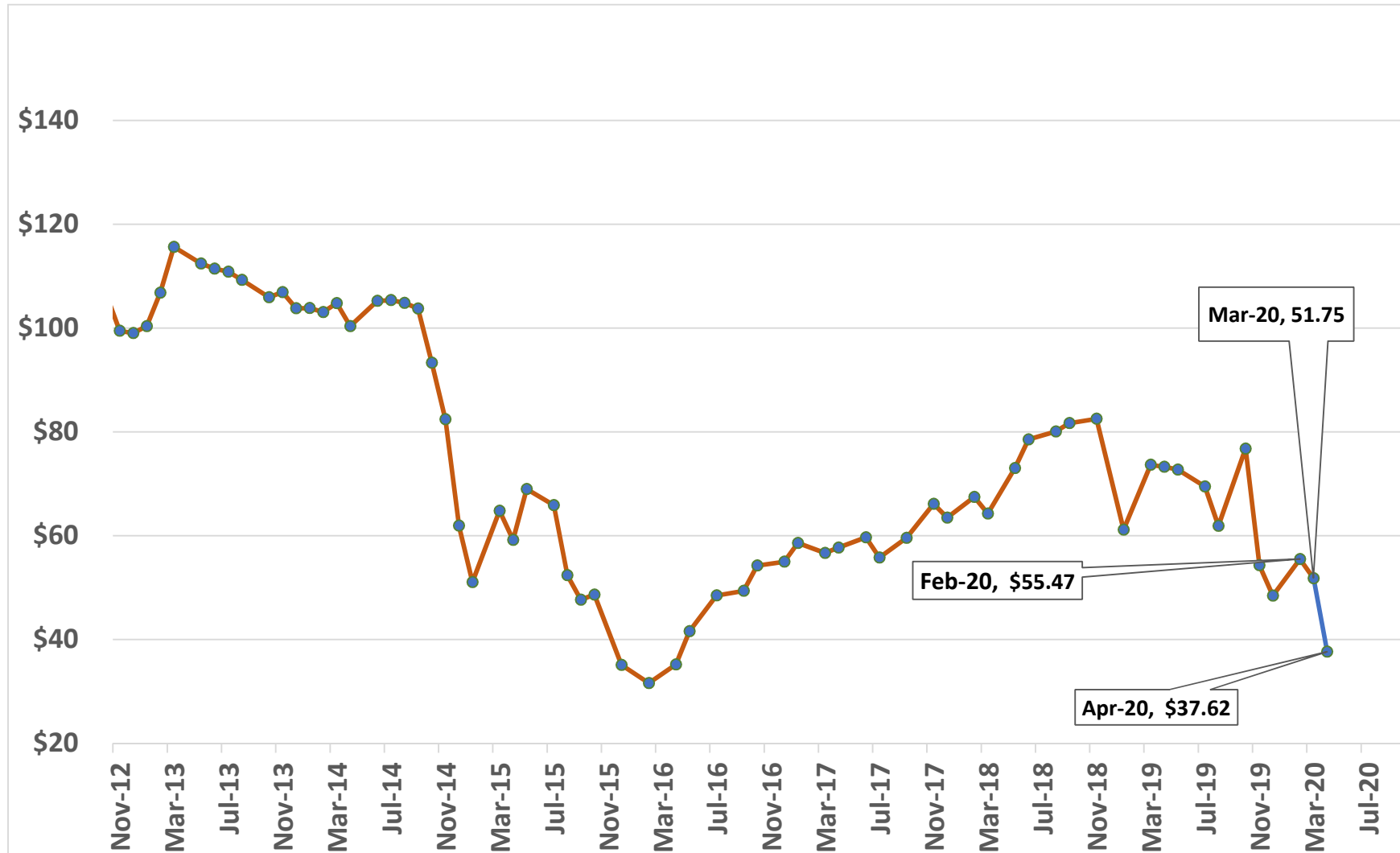
1. Interim Adjustment in the LEAC Rate
2. COVID-19 Operational Update



# Interim Adjustment in the LEAC Rate



# LEAC Update – GPA Fuel Purchases (Per Barrel)



— Purchased

— Ordered



# LEAC Update – Morgan Stanley Asian Morning Call

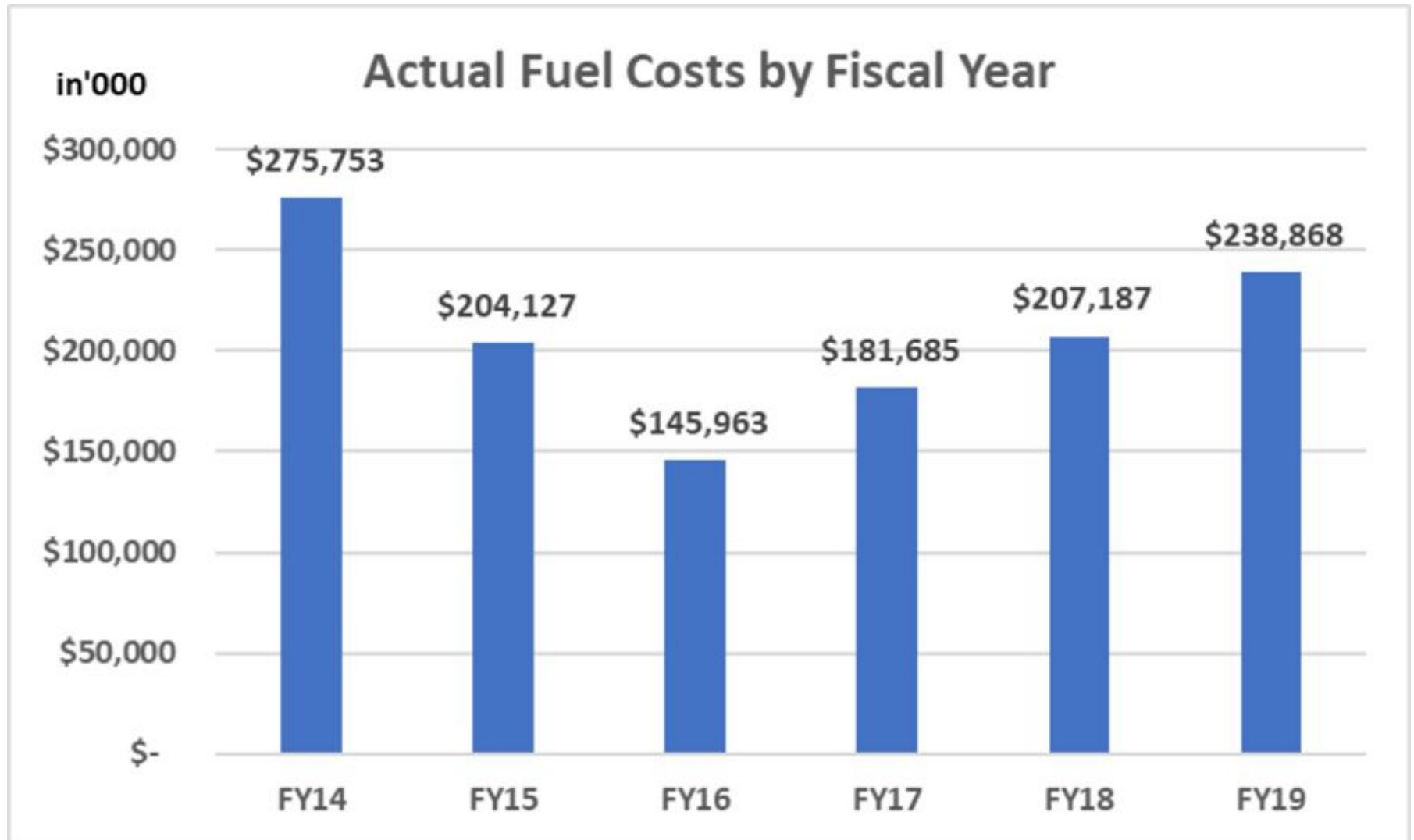
## Sing HSFO 180 CST

Date	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21
3/12/2020	\$ 182.12	\$ 183.62	\$ 190.87	\$ 198.12	\$ 208.79	\$ 208.79	\$ 208.79	\$ 223.04	\$ 223.04	\$ 223.04	\$ 235.29
3/13/2020	\$ 184.24	\$ 185.74	\$ 190.49	\$ 196.49	\$ 207.74	\$ 207.74	\$ 207.74	\$ 225.65	\$ 225.65	\$ 225.65	\$ 240.32
3/16/2020	\$ 184.48	\$ 185.98	\$ 188.48	\$ 192.48	\$ 201.48	\$ 201.48	\$ 201.48	\$ 215.15	\$ 215.15	\$ 215.15	\$ 227.98
3/17/2020	\$ 186.65	\$ 188.15	\$ 189.65	\$ 192.65	\$ 197.81	\$ 197.81	\$ 197.81	\$ 210.81	\$ 210.81	\$ 210.81	\$ 224.65
3/18/2020	\$ 173.40	\$ 174.90	\$ 176.40	\$ 179.40	\$ 184.57	\$ 184.57	\$ 184.57	\$ 197.57	\$ 197.57	\$ 197.57	\$ 211.40
Five-day average	\$ 182.18	\$ 183.68	\$ 187.18	\$ 191.83	\$ 200.08	\$ 200.08	\$ 200.08	\$ 214.44	\$ 214.44	\$ 214.44	\$ 227.93

## Gassoil 10ppm

3/12/2020	\$ 46.41	\$ 46.36	\$ 46.66	\$ 47.06	\$ 48.18	\$ 48.18	\$ 48.18	\$ 49.70	\$ 49.70	\$ 49.70	\$ 51.31
3/13/2020	\$ 44.55	\$ 44.45	\$ 45.00	\$ 45.65	\$ 47.25	\$ 47.25	\$ 47.25	\$ 49.16	\$ 49.16	\$ 49.16	\$ 50.90
3/16/2020	\$ 42.80	\$ 42.70	\$ 43.05	\$ 43.65	\$ 45.33	\$ 45.33	\$ 45.33	\$ 47.45	\$ 47.45	\$ 47.45	\$ 49.31
3/17/2020	\$ 41.21	\$ 41.11	\$ 41.46	\$ 42.26	\$ 44.11	\$ 44.11	\$ 44.11	\$ 46.23	\$ 46.23	\$ 46.23	\$ 48.05
3/18/2020	\$ 40.27	\$ 40.22	\$ 40.55	\$ 41.30	\$ 43.18	\$ 43.18	\$ 43.18	\$ 45.26	\$ 45.26	\$ 45.26	\$ 46.93
Five-day average	\$ 43.05	\$ 42.97	\$ 43.34	\$ 43.98	\$ 45.61	\$ 45.61	\$ 45.61	\$ 47.56	\$ 47.56	\$ 47.56	\$ 49.30

# LEAC Update – Fuel Cost by Fiscal Year

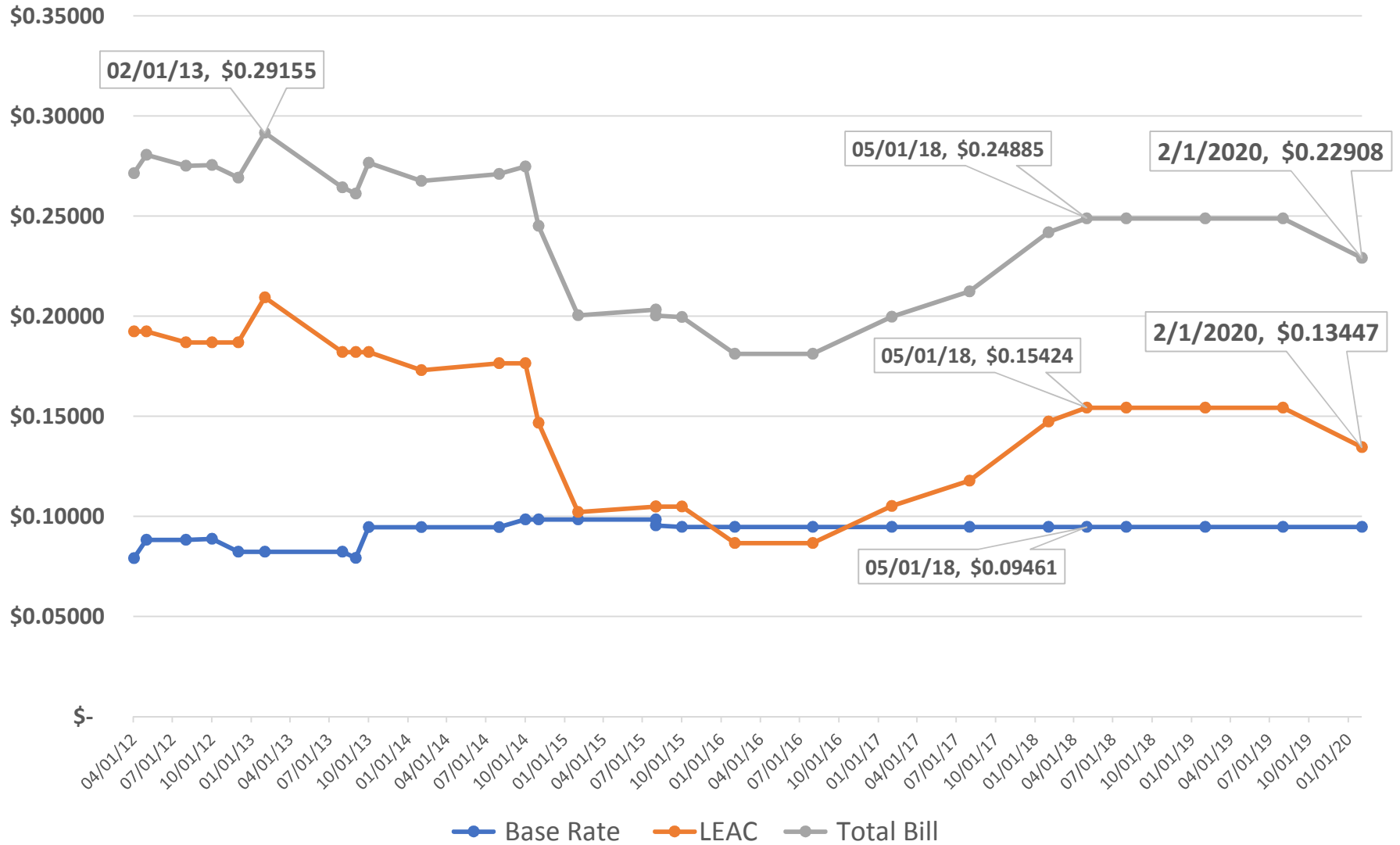




# Historical Residential LEAC Rate



# Historical Residential Rate



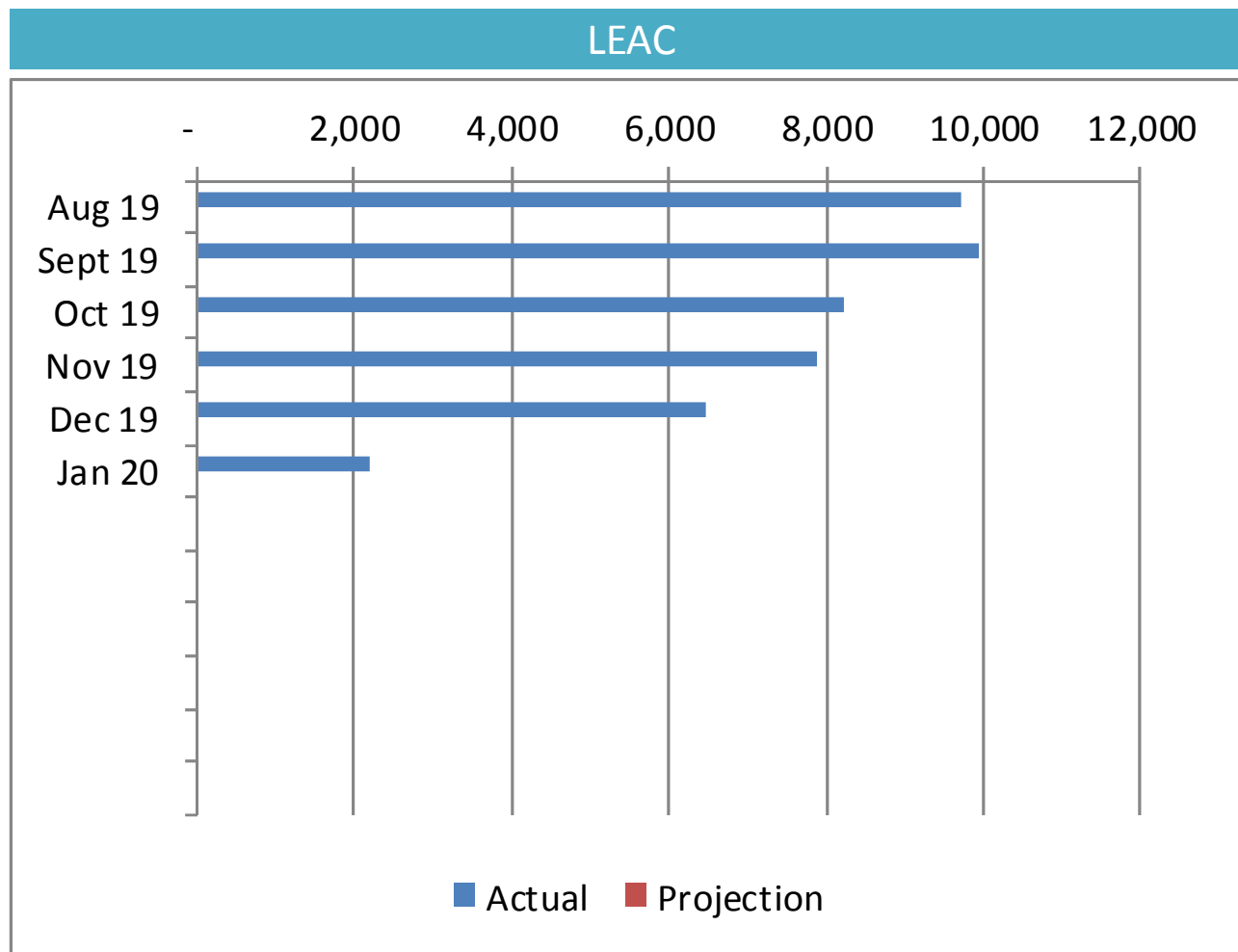
# Historical LEAC Over (Under ) Recovery

LEAC Period		Approved LEAC		Actual Over	
From	To	Rate		(Under) Recovery	
4/1/2012	7/31/2012	\$ 0.192310	\$	(3,040,418)	
8/1/2012	1/31/2013	\$ 0.186834	\$	(2,494,052)	
2/1/2013	7/31/2013	\$ 0.209271	\$	1,345,259	
8/1/2013	10/31/2013	\$ 0.182054	\$	1,300,093	
2/1/2014	7/31/2014	\$ 0.172986	\$	(1,137,034)	
8/1/2014	10/31/2014	\$ 0.176441	\$	(4,646,872)	
11/1/2014	1/31/2015	\$ 0.146666	\$	661,428	
2/1/2015	7/31/2015	\$ 0.102054	\$	1,757,878	
8/1/2015	1/31/2016	\$ 0.104871	\$	(2,467,151)	
2/1/2016	7/31/2016	\$ 0.086613	\$	(2,668,603)	
8/1/2016	1/31/2017	\$ 0.086613	\$	(9,915,360)	
			\$	(5,315,360) (a)	
2/1/2017	7/31/2017	\$ 0.105051	\$	(14,050,504)	
8/1/2017	01/31/1018	\$ 0.117718	\$	(16,775,982)	
2/1/2018	4/30/2018	\$ 0.147266	\$	(13,005,689)	
5/1/2018	7/31/2018	\$ 0.154242	\$	(8,422,674)	
8/1/2018	1/31/2019	\$ 0.154242	\$	(13,336,698)	
2/1/2019	7/31/2019	\$ 0.154242	\$	(10,225,349)	
8/1/2019	1/31/2020	\$ 0.154242	\$	(2,193,618)	

a) Under-recovery Balance after applying the \$4.6 million from the Cabras 3&4 Extra Expense claim



# LEAC Under Recovery Balances



LEAC	
(Unearned)/ Under Recovered	'000 Actual
Aug 19	9,722
Sept 19	9,944
Oct 19	8,210
Nov 19	7,887
Dec 19	6,473
Jan 20	2,194

# LEAC - Proposed

	Full Recovery Current Approved LEAC Rate Eff 2/01/2020	Full Recovery MS Pricing 03.12.20 to 03.18.20 Eff 04/01/20
2 Average Price per Bbl-RFO	\$ 59.14	\$ 53.42
2 Average Price per Bbl-Diesel	\$ 85.56	\$ 65.65
4 Number 6 (HSFO/LSFO)	\$ 57,722	\$ 35,338
5 Number 2 (Diesel)	33,131	13,956
6 Renewable (Solar)	5,575	3,960
7 TOTAL COST	\$ 96,428	\$ 53,255
8 Handling Costs	5,900	3,960
9 Total Current Fuel Expense	\$ 102,328	\$ 57,215
10 Civilian Allocation	81.62%	81.63%
11 LEAC Current Fuel Expense	\$ 83,519	\$ 46,698
12 Estimated DSM for this period	\$ -	\$ -
13 Deferred Fuel Expense at the beginning of the period	2,748	1,103
14 Total LEAC Expense	\$ 86,267	\$ 47,801
15 Less: Trans. Level Costs	(5,093)	(2,809)
16 Distribution Level Costs	\$ 81,175	\$ 44,992
17 Under recovery at the end of the period	\$ -	\$ -
18 Adjusted Distribution Level Costs	\$ 81,175	\$ 44,992
19 Distribution Level Sales (mWh)	603,646	408,873
20 LEAC Factor Distribution	<b>0.134474</b>	<b>0.110039</b>
21 Current LEAC Factor Distribution	0.154242	0.134474
22 Increase/(Decrease)	(0.01977)	(0.02443)
23 Monthly Increase/(Decrease) - 1000 kWh	\$ (19.77)	\$ (24.43)
24 % Increase/(Decrease) in LEAC	-12.82%	-18.17%
25 % Increase/(Decrease) in Total Bill	-7.94%	-10.67%
26 Discount (3%) - Primary 13.8 KV	\$ 0.130425	\$ 0.106727
27 Discount (4%) - 34.5 KV	\$ 0.130050	\$ 0.106420
28 Discount (5%) - 115 KV	\$ 0.128449	\$ 0.105110



# LEAC – Billing Illustration

	Rate Schedule R			
	Current LEAC Effective 2/1/2020		Proposed LEAC Effective 4/1/2020	
	Rate	Amount	Rate	Amount
KWH		1,000		1,000
Monthly Charge	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
Non-Fuel Energy Charge				
First 500 KWH	\$ 0.06955	\$ 34.78	\$ 0.06955	\$ 34.78
Over 500 KWH	\$ 0.08687	\$ 43.44	\$ 0.08687	\$ 43.44
Emergency Water-well charge	\$ 0.00279	\$ 1.40	\$ 0.00279	\$ 1.40
Total Electric Charge before Fuel Recovery Charges		\$ 94.61		\$ 94.61
Fuel Recovery Charge	<b>\$ 0.134474</b>	<u>134.47</u>	<b>\$ 0.110039</b>	<u>110.04</u>
Total Electric Charge		<u><b>\$229.08</b></u>		<u><b>\$204.64</b></u>
Increase (Decrease) in Total Bill				<u><b>(\$24.44)</b></u>
% Increase (Decrease) in Total Bill				<b>-10.7%</b>
% Increase (Decrease) in LEAC				<b>-18.2%</b>



# COVID-19 Operational Updates





# COVID-19 - Operational Updates

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## SUMMARY

- Executive Order No. 2020-04, issued March 16, 2020, ordered the closure of non-essential government of Guam services through March 30, 2020.
- GPA is prepared to ensure continuity of essential utility services during the mandated two-week shutdown. It will develop a contingent operational plan, should the shutdown be extended for 60 - 90 days.
- In addition to providing essential utility service, GPA will support regular business functions to the extent practicable. To minimize exposure and spread of coronavirus, especially to and among employees in mission-critical positions, only approved key, essential employees will be allowed entry into Fadian.

## DIRECTION & ORGANIZATION

- a. GPA AGMA is the coordinator/POC on all situations relevant to COVID-19 and its impact on GPA's operation with GM concurrence & direction.
- b. GPA AGMA & GWA AGMAS shall coordinate on joint utility actions relevant to COVID-19.



# COVID-19 - Operational Updates

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## ENSURING ESSENTIAL OPERATIONS

- a. Essential Operations: Mission-critical functions directly related to the generation, transmission, and distribution of electric service is priority (reference GPA AP-069). AGMs to direct essential services within their area of responsibility; and submit and certify their list of key essential employees to AGMA. AGMs must exercise prudence when scheduling employee assignments.
- b. Limited Access: Security guard services will be provided at the Fadian main entrances (front & back). Only essential and authorized GPWA employees with proper credentials will be allowed entry. List of authorized persons shall be provided to AGMA/Safety by respective AGMs, including GWA. (AGMA & Safety)
- c. Restricted Access: Access to PSCC & SCC is restricted to essential employees of those sections.
- d. Cleaning & Sanitizing: All offices utilized for meetings, especially conference rooms will be wiped down/sanitized before and after meetings. (Safety & Facilities)
- e. Key Projects: Critical GPA-directed projects must continue, while taking precautionary measures to stay safe and healthy. Re. ESS project - a 14-day self-quarantine is required for the tester from Germany. He cannot be on site until after the quarantine period. Explore remote work option. (AGMETS)



# COVID-19 - Operational Updates

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## ENSURING ESSENTIAL OPERATIONS

- f. Fuel Delivery Update: Fuel status is good. Fuel supply and delivery is continuing. Mobil & IP&E just received their ULSD shipments. Supply level is sufficient. They will continue with the usual delivery schedules and notify GPA should they encounter any issues.
  - i. AGMETS will check with P&R (Sylvia) what's the worst month on Low Sulfur Fuel, what was the production?
  - ii. AGMO will contact Mobil on diesel fuel and if they anticipate any problems in the near future.
  - iii. AGMO to check with Island Equipment regarding Hydrogen
- g. Cabras #2 Overhaul: Project continues. Aim is to return plant to service ahead of schedule
- h. COVID-19 Contingency Plan: Should the pandemic worsen; considerations will be made to designate the old PSCC building as a temporary safe shelter for essential generation employees. This may minimize the risk of exposure to COVID-19. Employees may rest, cook and sleep there. Facilities is assessing the structure.



# COVID-19 - Operational Updates

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## ENSURING CUSTOMER SERVICES

- a. Continuation of Power Service: To ensure continued power service for customers impacted by COVID-19, account disconnections are temporarily suspended through March 31, 2020.
- b. Payments to Accounts: Customers will be encouraged to continue to make payments toward their accounts via online (web & app), telephone, mail, banks, Treasurer of Guam.
- c. Customer Support: A minimum group of Customer Service & Cash Management employees will offer customer support beginning 3/17/20. Scope and schedule will be determined by customer need and employee availability. (CFO & AGMA)
- d. Customer Projects: If DPW is continuing their inspections, GPA will continue to provide the service. Hours will be limited for these assigned projects.
- e. Customer Communications: Communication-PIO office will coordinate with AGMA for all official press releases and employee updates regarding the present situation with COVID-19 and its impact on our operations.

## ADMINISTRATIVE MATTERS

- a. Pandemic Expense Tracking: WO# 478463 shall be used for all labor and expenses related to the COVID-19 Pandemic event. Credit Card use is authorized if needed to buy supplies, minor equipment or food for our employees to allow us to do what we need to do. Just work within the guidelines.



# COVID-19 - Operational Updates

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## ADMINISTRATIVE MATTERS

- b. Pay Status: Key essential employees reporting to work will be paid similar to holiday pay. Non-essential employees will be placed on administrative leave through March 30, 2020.
- c. Employee Health & Availability: In anticipation to return to normal business operations, while monitoring the impact of the pandemic on the Authority, employees are required to check in with their supervisor every 1-2 days to report their availability to report to work, and overall health. Specific health details are not required. Supervisors must report general employee availability and status to managers and AGMs.
- d. Telecommuting: Work for necessary projects that can be accomplished remotely (from home) is encouraged, rather than reporting to Fadian. Managers must manage all projects and time.
- e. Employee Questions: Employees may direct questions and concerns re. shutdown situation and issues to AGMA.
- f. Vendors & Services: Cleaning, machine vending, and courier service will continue. Document, mail and correspondence will be accepted once daily, as coordinated between Finance and Executive staff during the shutdown period. (Selma & Joyce)
- g. Facility Projects: All Fadian facility upgrades and construction projects will be suspended through the shutdown period.
- h. Payroll Processing: Payroll will have to continue no interruption of employee pay will occur. Timekeepers should only come in for the time necessary. Goal is to minimize paperwork and work electronically during the shutdown. Essential timekeepers will report to work for hours needed to complete data entry of timesheets. Managers/Supervisors will determine those limited hours.



# COVID-19 - Operational Updates

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## ADMINISTRATIVE MATTERS

- i. Travel (Business): All official employee business travel is suspended until further notice; only essential travel will be considered by the General Manager on a case-by-case basis.
- j. Travel (Personal): Effective 3/16/20, a 14-day self-quarantine period will be required of any employee who returns from personal off-island travel will require self-quarantine for 14 days. Any leave beyond the mandated shutdown period, required to fulfill self-quarantine will be deducted from the employee's personal leave, and not charged as administrative leave.
- k. Vendor Payments: Vendors will be paid as planned. Preferred payment method is ACH. otherwise, checks will be mailed out. Physical pick up of check payments is not permitted. Essential employees in Finance will continue processing payments for vendors. CFO to determine the personnel and limited work hours needed to process payments (i.e., accounting and budget staff).
- l. Procurement: AGMA will determine the Procurement personnel required, and schedule accordingly. Opening bids and bid due dates may be extended for two weeks.
- m. Fiscal Impact: Customer billing will continue. CFO will monitor impact. GPA is in good financial position right now, but we need to practice and make sound decisions as if we're not in good financial position. CFO will provide various projections/scenarios on sales and provide info when situation start to impact sales. Overall, generation is still good. Consumption will likely increase as we get closer to summer months.



# COVID-19 - Operational Updates

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## SUPPORTIVE EFFORTS (COVID-19)

- a. Operations energized GHS temporary command post at the Skilled Nursing Unit (SNU). We will track and later bill the agencies that we assist under COVID-19 work order.
- b. GPA loaned four thermal scanners to GIAA, through MOU. We are in the process of ordering new thermal scanners, perhaps 20 more.
- c. GPA must be supportive in assisting any of the other Government agencies or partners during this critical time.

## MARCH 2020 CCU WORK SESSION & MEETING

- a. CCU work sessions for this week have been cancelled. Regular CCU GPWA meeting still on for next Tuesday, 24 March 2020.
- b. If we do not take up the issue of reducing LEAC this month then it will be moved to April's meeting before the billings go out.
- c. Future Action: GM may call a meeting for this team later this week. Meeting will be in either the CCU boardroom or another room.







# GUAM POWER AUTHORITY

ATURIDĀT ILEKTRESEDĀT GUAHAN  
P O BOX 2977, HAGĀTŊA, GUAM 96932-2977  
Telephone: (671) 648-3066 Fax: (671) 648-3168

## GUAM POWER AUTHORITY FINANCIAL STATEMENT OVERVIEW January 2020

Attached are the financial statements and supporting schedules for the month and fiscal year ended January 31, 2020.

### Summary

The increase in net assets for the month ended was \$1.3 million as compared to the anticipated net decrease of \$0.3 million projected at the beginning of the year. The total kWh sales for the month was 0.54% more than projected and non-fuel revenues were right in line with the estimated amounts. O & M expenses for the month were \$5.4 million which was \$1.1 million less than our projections for this year. Other expenses for the month such as interest expense, IPP costs, (net of interest income and other income) totaled to \$2.9 million, which was \$0.2 million less than projected amounts. There were no other significant departures from the budget during the period.

### Analysis

Description	Previous Month	Current Month	Target
Quick Ratio	2.59	3.08	2
Days in Receivables	47	41	52
Days in Payables	27	16	30
<b>LEAC (Over)/Under Recovery Balance -YTD</b>	\$6,472,638	\$2,193,618	\$8,381,375
T&D Losses	5.36%	5.34%	<7.00%
Debt Service Coverage	1.60	1.59	1.75
Long-term equity ratio	1.58%	1.81%	30 – 40%
Days in Cash	208	218	60

The Quick Ratio has been a challenge for GPA historically. However, the influx of cash from insurance proceeds continued to improve this ratio. GPA has current obligations of approximately \$63 million and approximately \$194 million in cash and current receivables. The LEAC over-recovery for the month was \$4.3 million. Debt Service Coverage ratio is calculated using the methodology in use before the Fiscal Year 2002 change in accounting practice.

**Financial Statements**  
**January 2020**


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**Significant Assumptions**

The significant assumptions in the financial statements are as follows:

- Accrual cutoff procedures were performed at month end
- An inventory valuation is performed at year-end only
- Accounts Receivable includes accruals based on prior months' usage.

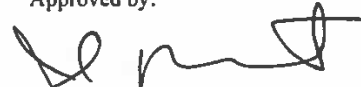
Prepared by:

  
\_\_\_\_\_  
Lenora M. Sanz  
Controller

Reviewed by:

  
\_\_\_\_\_  
John J.E. Kim  
Chief Financial Officer

Approved by:

  
\_\_\_\_\_  
John M. Benavente, P.E.  
General Manager

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statements of Net Position January 31, 2020 and September 30, 2019			
	Unaudited January 2020	Unaudited September 2019	Change from Sept 30 2019
<b>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>			
Current assets:			
Cash and cash equivalents:			
Held by trustee for restricted purposes:			
Interest and principal funds	\$ 18,824,150	\$ 33,053,886	\$ (14,229,736)
Bond indenture funds	26,904,808	29,168,116	(2,263,308)
Held by Guam Power Authority:			
Bond indenture funds	148,990,185	154,027,791	(5,037,606)
Self insurance fund-restricted	19,426,795	19,378,387	48,408
Energy sense fund	351,330	333,528	17,802
Total cash and cash equivalents	<u>214,497,268</u>	<u>235,961,708</u>	<u>(21,464,440)</u>
Accounts receivable, net	<u>43,612,564</u>	<u>41,867,589</u>	<u>1,744,975</u>
Total current receivables	<u>43,612,564</u>	<u>41,867,589</u>	<u>1,744,975</u>
Materials and supplies inventory	13,959,621	12,521,306	1,438,315
Fuel inventory	35,674,851	41,214,022	(5,539,171)
Prepaid expenses	<u>8,263,098</u>	<u>2,066,278</u>	<u>6,196,820</u>
Total current assets	<u>316,007,402</u>	<u>333,630,903</u>	<u>(17,623,501)</u>
Utility plant, at cost:			
Electric plant in service	1,086,105,542	1,084,434,067	1,671,475
Construction work in progress	<u>43,214,343</u>	<u>37,592,719</u>	<u>5,621,624</u>
Total	1,129,319,885	1,122,026,786	7,293,099
Less: Accumulated depreciation	<u>(644,963,401)</u>	<u>(633,190,295)</u>	<u>(11,773,106)</u>
Total utility plant	<u>484,356,484</u>	<u>488,836,491</u>	<u>(4,480,007)</u>
Other non-current assets:			
Investment - bond reserve funds held by trustee	48,582,252	48,599,853	(17,601)
Unamortized debt issuance costs	<u>2,131,712</u>	<u>2,221,160</u>	<u>(89,448)</u>
Total other non-current assets	<u>50,713,964</u>	<u>50,821,013</u>	<u>(107,049)</u>
Total assets	<u>851,077,850</u>	<u>873,288,407</u>	<u>(22,210,557)</u>
Deferred outflow of resources:			
Deferred fuel revenue	2,193,618	9,943,732	(7,750,114)
Unamortized loss on debt refunding	23,972,984	24,733,104	(760,120)
Pension	8,932,987	8,932,987	0
Other post employment benefits	13,798,017	13,798,017	0
Unamortized forward delivery contract costs	<u>265,518</u>	<u>318,638</u>	<u>(53,120)</u>
Total deferred outflows of resources	<u>49,163,124</u>	<u>57,726,478</u>	<u>(8,563,354)</u>
	<u>\$ 900,240,974</u>	<u>\$ 931,014,885</u>	<u>\$ (30,773,911)</u>

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statement of Net Position, Continued January 31, 2020 and September 30, 2019			
	Unaudited January 2020	Unaudited September 2019	Change from Sept 30 2019
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION			
Current liabilities:			
Current maturities of long-term debt	\$ 20,515,000	\$ 16,130,000	\$ 4,385,000
Current obligations under capital leases	3,304,531	3,304,531	0
Accounts payable			
Operations	15,431,209	27,385,427	(11,954,218)
Others	1,216,713	23,036	1,193,677
Accrued payroll and employees' benefits	2,112,879	2,348,815	(235,936)
Current portion of employees' annual leave	2,180,704	2,153,583	27,121
Interest payable	9,783,437	14,733,265	(4,949,828)
Customer deposits	8,501,185	8,912,096	(410,911)
Total current liabilities	63,045,658	74,990,753	(11,945,095)
Regulatory liabilities:			
Provision for self insurance	19,345,291	19,345,291	0
Total regulatory liabilities	19,345,291	19,345,291	0
Long term debt, net of current maturities	563,118,390	584,892,990	(21,774,600)
Obligations under capital leases, net of current portion	4,884,534	7,664,664	(2,780,130)
Net Pension liability	71,783,608	72,866,989	(1,083,381)
Other post employment benefits liability	145,955,861	145,955,861	0
DCRS sick leave liability	1,331,151	1,331,151	0
Employees' annual leave net of current portion	1,204,085	1,204,085	0
Customer advances for construction	392,985	394,540	(1,555)
Total liabilities	871,061,563	908,646,324	(37,584,761)
Deferred inflows of resources:			
Unearned forward delivery contract revenue	973,363	1,168,036	(194,673)
Pension	3,532,642	3,532,642	0
Other post employment benefits	14,804,043	14,804,043	0
Total deferred inflows of resources	19,310,048	19,504,721	(194,673)
Commitments and contingencies			
Net Position:			
Net investment in capital assets	(32,371,896)	(45,782,266)	13,410,370
Restricted	39,046,377	51,357,358	(12,310,981)
Unrestricted	3,194,881	(2,711,253)	5,906,134
Total net position	9,869,362	2,863,840	7,005,524
	\$ 900,240,974	\$ 931,014,885	\$ (30,773,911)

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statement of Revenues, Expenses and Changes in Net Assets						
	January 31		% of	Four Months		% of
	Unaudited	Unaudited	change	Ended	Unaudited	change
	2020	2019	Inc (dec)	January 31	2019	Inc (dec)
Revenues						
Sales of electricity	\$ 31,707,692	\$ 31,437,899	1	\$ 130,671,688	\$ 132,902,535	(2)
Miscellaneous	529,316	1,089,972	(51)	753,034	1,854,442	(59)
Total	32,237,008	32,527,871	(1)	131,424,722	134,756,977	(2)
Bad debt expense	(90,917)	(91,500)	(1)	(363,668)	(366,000)	(1)
Total revenues	32,146,091	32,436,371	(1)	131,061,054	134,390,977	(2)
Operating and maintenance expenses						
Production fuel	18,820,283	18,821,624	(0)	77,770,775	80,051,433	(3)
Other production	1,405,798	1,230,090	14	5,299,195	4,890,905	2
	20,226,081	20,051,714	1	83,069,970	84,942,338	(2)
Depreciation	3,321,952	2,848,642	17	12,438,436	12,733,037	(2)
Energy conversion cost	1,243,219	1,691,681	(27)	4,274,132	5,912,654	(28)
Transmission & distribution	1,196,538	1,050,369	14	4,350,368	3,583,681	21
Customer accounting	423,436	509,530	(17)	1,748,819	1,719,513	2
Administrative & general	2,404,384	2,517,924	(5)	10,208,816	10,027,496	2
Total operating and maintenance expenses	28,815,610	28,669,860	1	116,090,541	118,918,719	(2)
Operating income	3,330,481	3,766,511	(12)	14,970,513	15,472,258	(3)
Other income (expenses)						
Interest income	269,202	397,546	(32)	1,145,184	1,282,749	(11)
Interest expense and amortization	(2,326,215)	(2,425,693)	(4)	(9,285,110)	(9,603,982)	(3)
Bond issuance costs	89,228	88,022	1	356,912	351,088	2
Bid bond forfeiture	0	0	0	0	(1,245,000)	0
Losses due to typhoon	(92,167)	(67,137)	0	(164,813)	(282,828)	0
Other expense	(4,291)	(4,291)	0	(17,164)	(17,164)	0
Total other income (expenses)	(2,064,243)	(2,011,553)	3	(7,964,991)	(9,515,137)	(16)
Income (loss) before capital contributions	1,266,238	1,754,958	(28)	7,005,522	5,957,121	18
Capital contributions	0	28,837	0	0	28,837	0
Increase (decrease) in net assets	1,266,238	1,783,795	(29)	7,005,522	5,985,958	17
Total net assets at beginning of period (restated)	8,603,124	(14,106,487)	0	2,863,840	(18,308,650)	(116)
Total net assets at end of period	\$ 9,869,362	\$ (12,322,692)	(180)	\$ 9,869,362	\$ (12,322,692)	(180)

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statements of Cash Flows Period Ended January 31, 2020			
	Month Ended 1/31/2020		YTD Ended 1/31/2020
Increase(decrease) in cash and cash equivalents			
Cash flows from operating activities:			
Cash received from customers	\$	37,554,064	\$ 129,404,189
Cash payments to suppliers and employees for goods and services		24,758,659	109,686,120
Net cash provided by operating activities	\$	12,795,405	\$ 19,718,069
Cash flows from investing activities:			
Interest and dividends on investments and bank accounts		269,202	1,145,184
Net cash provided by investing activities	\$	269,202	\$ 1,145,184
Cash flows from non-capital financing activities			
Interest paid on short term debt		173,158	(38,222)
Provision for self insurance funds		-	(48,408)
Net cash provided by noncapital financing activities	\$	173,158	\$ (86,630)
Cash flows from capital and related financing activities			
Acquisition of utility plant		(1,878,824)	(7,958,428)
Principal paid on bonds and other long-term debt		-	(16,130,000)
Interest paid on bonds(net of capitalized interest)		-	(14,014,000)
Interest paid on capital lease obligations		(29,197)	(182,715)
Interest & principal funds held by trustee		(3,978,493)	14,229,736
Reserve funds held by trustee		(27,942)	17,601
Bond funds held by trustee		645,905	2,263,308
Principal payment on capital lease obligations		(711,848)	(2,780,130)
Debt issuance costs/loss on defeasance		(314,900)	(1,259,600)
Net cash provided by (used in) capital and related financing activities		(6,295,299)	(25,814,228)
Net (decrease) increase in cash and cash equivalents	\$	6,942,465	\$ (5,037,606)
Cash and cash equivalents, beginning	\$	142,047,720	\$ 154,027,791
Cash and cash equivalents-Funds held by GPA, January 31, 2020	\$	148,990,185	\$ 148,990,185

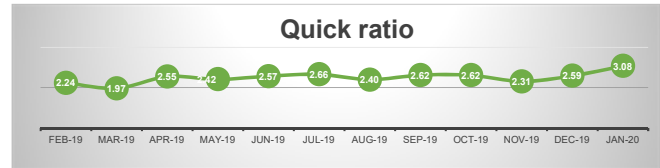
GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statements of Cash Flows, continued Period Ended January 31, 2020			
	Month Ended 1/31/2020		YTD Ended 1/31/2020
<b>Reconciliation of operating earnings to net cash provided by operating activities:</b>			
Operating earnings net of depreciation expense and excluding interest income	\$	3,327,793	\$ 14,970,513
Adjustments to reconcile operating earnings to net cash provided by operating activities:			
Depreciation and amortization		3,321,952	12,438,436
Other expense		(7,230)	174,935
(Increase) decrease in assets:			
Accounts receivable		5,270,708	(1,744,975)
Materials and inventory		(471,445)	(1,438,315)
Fuel inventory		10,525,852	5,539,171
Prepaid expenses		571,448	(6,196,820)
Unamortized debt issuance cost		22,362	89,448
Deferred fuel revenue		4,279,020	7,750,114
Unamortized loss on debt refunding		190,030	760,120
Unamortized forward delivery contract costs		13,280	53,120
Increase (decrease) in liabilities:			
Accounts payable-operations		(15,235,011)	(11,954,218)
Accounts payable-others		902,400	1,175,875
Accrued payroll and employees' benefits		474,098	(235,936)
Net pension liability		(268,583)	(1,083,381)
Employees' annual leave		(16,860)	27,121
Customers deposits		(58,918)	(410,911)
Customer advances for construction		3,177	(1,555)
Unearned forward delivery contract revenue		(48,668)	(194,673)
<b>Net cash provided by operating activities</b>	<b>\$</b>	<b>12,795,405</b>	<b>\$ 19,718,069</b>



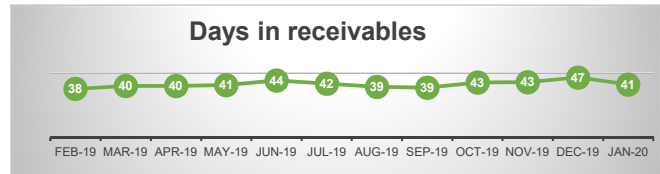
**Guam Power Authority**  
**Financial Analysis**  
**01/31/20**

**Quick Ratio**

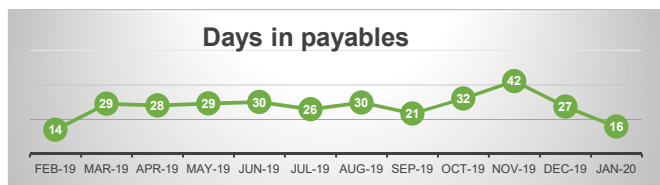
A	Reserve Funds Held by GPA	148,990,185
B	Current Accounts Receivable	44,906,984
C	Total Cash and A/R (A+B)	193,897,169
D	Total Current Liabilities	63,045,658
E	<b>Quick Ratio (F/G)</b>	<b>3.08</b>

**Days in Receivables**

A	FY 19 Moving 12 Mos.-Actual	397,501,965
B	No. of Days	365
C	Average Revenues per day (A/B)	1,089,046
D	Current Accounts Receivable	44,906,984
E	<b>Days in Receivables (D/C)</b>	<b>41</b>

**Days in Payables**

A	FY 19 Moving 12 Months-Actual	386,275,586
B	No. of Days	365
C	Average Payables per day (A/B)	1,058,289
D	Current Accounts Payables	16,647,922
E	<b>Days in Payables (D/C)</b>	<b>16</b>

**Long term equity ratio**

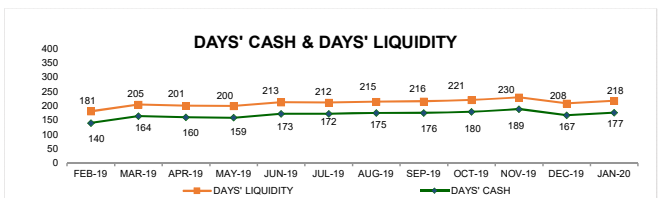
A	Equity	\$ 9,869,362
B	Total Long term Liability	\$ 534,199,490
C	Total Equity and liability	\$ 544,068,852
D	<b>Long term equity ratio (A/C)</b>	<b>1.81%</b>

**Days cash on hand**

A	Unrestricted cash & cash equivalents	148,990
B	No. of Days -YTD	123
C	A x B	18,325,793
D	Total Operating expenses excluding depreciation	103,649
E	<b>Days cash on hand</b>	<b>177</b>

**Days' Liquidity**

A	Unrestricted cash , cash equivalents & revolving Cr	183,990
B	No. of Days -YTD	123
C	A x B	22,630,793
D	Total Operating expenses excluding depreciation	103,649
E	<b>Days liquidity</b>	<b>218</b>



## GPA 302

GUAM POWER AUTHORITY  
ACCRUED REVENUE  
JANUARY 2020

		FOR THE MONTH ENDED JANUARY		FOUR MONTHS ENDED JANUARY	
		2020	2019	2020	2019
<b>KWH SALES:</b>					
Residential		38,780,579	36,661,215	163,759,799	161,295,534
Small Gen. Non Demand		5,360,912	6,252,665	21,472,285	26,624,489
Small Gen. Demand		16,008,372	14,926,054	64,756,643	61,038,723
Large General		24,478,138	24,846,497	99,885,421	101,649,800
Independent Power Producer		29,711	36,117	127,053	131,003
Private St. Lights		34,228	32,878	133,582	133,794
	Sub-total	84,691,941	82,755,426	350,134,783	350,873,343
<b>Government Service:</b>					
Small Non Demand		688,336	1,066,520	2,938,961	4,600,292
Small Demand		8,429,943	7,752,635	34,258,427	31,603,730
Large		5,741,099	5,782,397	24,163,580	24,133,328
Street Lighting		615,219	714,935	2,403,244	3,085,567
	Sub-total	15,474,596	15,316,487	63,764,212	63,422,918
	Total	100,166,537	98,071,914	413,898,994	414,296,261
U. S. Navy		25,963,769	24,517,651	102,562,895	102,509,341
	<b>GRAND TOTAL</b>	<b>126,130,305</b>	<b>122,589,564</b>	<b>516,461,889</b>	<b>516,805,602</b>
<b>REVENUE:</b>					
Residential		9,600,770	9,109,499	40,920,089	40,341,246
Small Gen. Non Demand		1,582,611	1,844,100	6,370,771	7,781,355
Small Gen. Demand		4,444,883	4,135,462	17,880,905	16,763,089
Large General		6,364,878	6,433,966	25,755,109	26,134,853
Independent Power Producer		7,776	10,117	34,117	36,678
Private St. Lights		25,787	26,100	102,870	104,182
	Sub-total	22,026,703	21,559,243	91,063,859	91,161,403
<b>Government Service:</b>					
Small Non Demand		221,791	328,284	936,696	1,405,197
Small Demand		2,445,544	2,248,023	9,868,373	9,120,227
Large		1,608,235	1,614,932	6,714,265	6,684,653
Street Lighting		438,899	465,560	1,743,692	1,938,746
	Sub-total	4,714,468	4,656,799	19,263,026	19,148,823
	Total	26,741,172	26,216,042	110,326,885	110,310,227
U. S. Navy		4,966,520	5,221,857	20,344,802	22,592,308
	<b>GRAND TOTAL</b>	<b>31,707,692</b>	<b>31,437,899</b>	<b>130,671,688</b>	<b>132,902,534</b>
<b>NUMBER OF CUSTOMERS:</b>					
Residential		44,755	44,091	44,536	44,000
Small Gen. Non Demand		4,115	4,180	4,063	4,176
Small Gen. Demand		1,098	986	1,086	985
Large General		121	119	121	118
Independent Power Producer		2	2	2	2
Private St. Lights		510	522	515	524
	Sub-total	50,601	49,900	50,322	49,805
<b>Government Service:</b>					
Small Non Demand		650	679	646	679
Small Demand		385	356	384	349
Large		44	42	44	44
Street Lighting		616	628	618	628
	Sub-total	1,695	1,705	1,691	1,699
	Total	52,296	51,605	52,013	51,504
US Navy		1	1	1	1
		<b>52,297</b>	<b>51,606</b>	<b>52,014</b>	<b>51,505</b>

CCU Regular Meeting Mach 24, 2020 - GPA

GPA403		GUAM POWER AUTHORITY ACCRUED REVENUE											
	TWELVE MONTHS ENDING	JANUARY 2020	DECEMBER 2019	NOVEMBER 2019	OCTOBER 2019	SEPTEMBER 2019	AUGUST 2019	JULY 2019	JUNE 2019	MAY 2019	APRIL 2019	MARCH 2019	FEBRUARY 2019
<b>KWH SALES:</b>													
Residential	499,236,892	38,780,579	41,139,080	41,832,586	42,007,555	39,850,588	41,847,978	45,512,584	46,454,816	45,901,332	42,026,049	40,399,698	33,484,048
Small General Non Demand	70,948,746	5,360,912	5,151,158	5,409,659	5,550,556	5,281,337	5,043,909	6,192,199	7,135,817	6,785,836	7,066,118	6,549,399	5,421,847
Small General Demand	191,357,993	16,008,372	16,007,245	16,236,716	16,504,309	16,034,273	16,546,802	17,132,421	16,196,923	16,473,837	15,551,604	15,250,813	13,414,678
Large General	299,514,550	24,478,138	25,153,208	24,973,240	25,280,835	24,400,150	25,901,704	25,960,590	25,905,882	25,831,230	24,717,184	24,793,966	22,118,423
Private Outdoor Lighting	396,246	34,228	31,725	33,968	33,660	32,707	34,326	31,882	34,779	33,473	30,560	32,171	32,766
Independent Power Producer	394,307	29,711	34,266	33,926	29,151	47,591	31,920	34,342	33,644	31,329	28,130	34,407	25,891
Sub-Total	1,061,848,734	84,691,941	87,516,681	88,520,094	89,406,066	85,646,645	89,406,638	94,864,018	95,761,862	95,057,036	89,419,645	87,060,454	74,497,653
<b>Government Service:</b>													
Small Non Demand	11,109,023	688,336	732,098	739,934	778,594	733,348	792,642	745,870	1,225,034	1,265,906	1,195,401	1,192,582	1,019,279
Small Demand	100,555,758	8,429,943	8,610,483	8,287,162	8,930,840	8,706,945	8,790,473	8,806,768	7,970,826	8,650,402	8,019,578	8,144,760	7,207,579
Large	72,017,630	5,741,099	5,917,603	6,140,795	6,364,082	6,031,079	6,328,596	6,026,050	5,952,146	6,344,614	5,914,002	5,983,823	5,273,740
Street Lighting (Agencies)	8,559,273	615,219	270,787	652,963	864,275	711,804	864,386	763,574	710,958	838,818	763,841	710,856	791,792
Sub-Total	192,241,685	15,474,596	15,530,972	15,820,854	16,937,791	16,163,177	16,776,096	16,342,261	15,658,964	17,099,740	15,892,823	16,032,021	14,292,390
Total	1,254,090,419	100,166,537	103,047,653	104,340,948	106,343,856	101,829,822	106,182,735	111,206,280	111,620,826	112,156,776	105,312,468	103,092,475	88,790,044
U.S. Navy	313,851,620	25,963,769	25,910,039	25,080,100	25,608,987	25,184,246	27,239,150	27,997,548	27,082,742	28,255,054	27,083,234	26,077,843	22,368,909
Grand Total	1,567,942,039	126,130,305	128,957,692	129,421,048	131,952,844	127,014,068	133,421,884	139,203,828	138,703,568	140,411,830	132,395,702	129,170,318	111,158,952
<b>REVENUE:</b>													
Residential	125,044,960	9,600,770	10,333,720	10,464,359	10,521,241	10,007,200	10,470,951	11,397,991	11,569,285	11,457,009	10,559,992	10,171,326	8,491,117
Small General Non Demand	20,894,879	1,582,611	1,544,644	1,595,257	1,648,259	1,579,415	1,492,266	1,835,976	2,060,263	1,943,284	2,086,044	1,927,366	1,599,494
Small General Demand	52,585,726	4,444,883	4,451,665	4,449,885	4,534,471	4,422,371	4,572,505	4,665,289	4,374,426	4,442,708	4,275,919	4,237,399	3,714,204
Large General	77,163,569	6,364,878	6,436,132	6,456,820	6,497,279	6,283,768	6,671,085	6,607,718	6,673,278	6,615,844	6,321,363	6,456,767	5,778,637
Private Outdoor Lighting	308,395	25,787	25,341	25,875	25,867	25,616	26,038	25,412	26,200	25,670	25,155	25,651	25,784
Independent Power Producer	107,627	7,776	9,864	8,849	7,628	13,738	9,248	8,337	8,701	8,600	7,310	9,896	7,681
Sub-Total	276,105,156	22,026,703	22,801,366	23,001,043	23,234,746	22,332,107	23,242,093	24,540,723	24,712,154	24,493,115	23,275,783	22,828,405	19,616,918
<b>Government Service:</b>													
Small Non Demand	3,450,268	221,791	232,560	236,107	246,239	232,567	250,901	235,628	373,461	383,585	361,853	364,404	311,171
Small Demand	28,879,834	2,445,544	2,461,603	2,407,924	2,553,302	2,491,735	2,527,222	2,494,451	2,319,401	2,465,281	2,284,016	2,363,416	2,065,940
Large	19,992,911	1,608,235	1,642,284	1,709,248	1,754,498	1,671,314	1,754,837	1,655,430	1,659,702	1,743,611	1,632,794	1,668,683	1,492,275
Street Lighting (Agencies)	5,614,489	438,899	342,012	459,553	503,228	471,713	503,316	482,461	471,543	497,965	482,529	472,435	488,836
Sub-Total	57,937,502	4,714,468	4,678,460	4,812,832	5,057,267	4,867,330	5,036,276	4,867,971	4,824,107	5,090,441	4,761,191	4,868,938	4,358,222
Total	334,042,659	26,741,172	27,479,826	27,813,875	28,292,013	27,199,437	28,278,369	29,408,694	29,536,261	29,583,556	28,036,974	27,697,343	23,975,139
U.S. Navy	63,459,307	4,966,520	5,433,030	4,632,403	5,312,849	4,808,157	5,647,382	5,623,735	6,373,008	5,183,974	4,925,354	5,245,421	5,307,473
Grand Total	397,501,965	31,707,692	32,912,856	32,446,278	33,604,862	32,007,594	33,925,751	35,032,429	35,909,269	34,767,531	32,962,328	32,942,764	29,282,613
<b>NUMBER OF CUSTOMERS:</b>													
Residential	44,405	44,755	44,203	44,602	44,584	44,479	44,497	44,408	44,329	44,640	44,200	44,144	44,018
Small General Non Demand	4,135	4,115	3,953	4,092	4,091	4,087	4,122	4,197	4,211	4,213	4,185	4,183	4,173
Small General Demand	1,036	1,098	1,079	1,085	1,082	1,080	1,086	1,014	971	983	985	985	984
Large General	120	121	120	120	121	120	121	120	119	119	118	121	119
Private Outdoor Lighting	519	510	517	515	517	520	518	519	520	520	522	523	521
Independent Power Producer	2	2	2	2	2	2	2	2	2	2	2	2	2
Sub-Total	50,217	50,601	49,874	50,416	50,397	50,288	50,346	50,260	50,152	50,477	50,012	49,958	49,817
<b>Government Service:</b>													
Small Non Demand	646	650	644	644	645	644	648	671	676	676	672	675	678
Small Demand	372	385	384	383	383	382	382	381	356	355	356	357	357
Large	43	44	44	44	44	44	44	43	42	42	42	42	42
Street Lighting (Agencies)	620	616	618	618	618	618	619	618	618	618	621	629	628
Sub-Total	1,681	1,695	1,690	1,689	1,690	1,688	1,692	1,714	1,693	1,691	1,691	1,703	1,705
Total	51,897	52,296	51,564	52,105	52,087	51,976	52,038	51,974	51,845	52,168	51,703	51,661	51,522
U.S. Navy	1	1	1	1	1	1	1	1	1	1	1	1	1
Grand Total	51,898	52,297	51,565	52,106	52,088	51,977	52,039	51,975	51,846	52,169	51,704	51,662	51,523

GPA303

**GUAM POWER AUTHORITY  
ACCRUED REVENUE  
JANUARY 2020**

RATE	NUMBER OF CUSTOMERS	KWH SALES	TOTAL REVENUE		BASE RATE REVENUE		AVERAGE PER CUSTOMER		NON-FUEL		OIL	
			AMOUNT	C/KWH	C/KWH	AMOUNT	KWH	REVENUE	C/KWH	AMOUNT	C/KWH	AMOUNT
Month												
R Residential	44,755	38,780,579	\$ 9,600,770	\$ 24.76	\$ 24.76	\$ 9,600,770	867	\$ 215	\$ 9.33	\$ 3,619,175	\$ 15.42	\$ 5,981,594
G Small Gen. Non Demand	4,115	5,360,912	\$ 1,582,611	\$ 29.52	\$ 29.52	\$ 1,582,611	1,303	\$ 385	\$ 14.10	\$ 755,733	\$ 15.42	\$ 826,878
J Small Gen. Demand	1,098	16,008,372	\$ 4,444,883	\$ 27.77	\$ 27.77	\$ 4,444,883	14,580	\$ 4,048	\$ 12.35	\$ 1,976,761	\$ 15.42	\$ 2,468,122
P Large General	121	24,478,138	\$ 6,364,878	\$ 26.00	\$ 26.00	\$ 6,364,878	202,299	\$ 52,602	\$ 10.65	\$ 2,606,430	\$ 15.35	\$ 3,758,448
I Independent Power Producer	2	29,711	\$ 7,776	\$ 26.17	\$ 26.17	\$ 7,776	14,855	\$ 3,888	\$ 11.26	\$ 3,345	\$ 14.91	\$ 4,430
H Private St. Lights	510	34,228	\$ 25,787	\$ 75.34	\$ 75.34	\$ 25,787	67	\$ 51	\$ 59.91	\$ 20,507	\$ 15.42	\$ 5,279
Sub-Total	50,601	84,691,941	\$ 22,026,703	\$ 26.01	\$ 26.01	\$ 22,026,703	1,674	\$ 435	\$ 10.61	\$ 8,981,952	\$ 15.40	\$ 13,044,752
Government Service:												
S Small Non Demand	650	688,336	\$ 221,791	\$ 32.22	\$ 32.22	\$ 221,791	1,059	\$ 341	\$ 16.80	\$ 115,620	\$ 15.42	\$ 106,170
K Small Demand	385	8,429,943	\$ 2,445,544	\$ 29.01	\$ 29.01	\$ 2,445,544	21,896	\$ 6,352	\$ 13.59	\$ 1,145,293	\$ 15.42	\$ 1,300,251
L Large	44	5,741,099	\$ 1,608,235	\$ 28.01	\$ 28.01	\$ 1,608,235	130,480	\$ 36,551	\$ 12.79	\$ 734,005	\$ 15.23	\$ 874,230
F Street Lighting (Agencies)	616	615,219	\$ 438,899	\$ 71.34	\$ 71.34	\$ 438,899	999	\$ 712	\$ 55.92	\$ 344,006	\$ 15.42	\$ 94,893
Sub-Total	1,695	15,474,596	\$ 4,714,468	\$ 30.47	\$ 30.47	\$ 4,714,468	9,130	\$ 2,781	\$ 15.11	\$ 2,338,925	\$ 15.35	\$ 2,375,544
U.S. Navy	52,296	100,166,537	\$ 26,741,172	\$ 26.70	\$ 26.70	\$ 26,741,172	1,915	\$ 511	\$ 11.30	\$ 11,320,876	\$ 15.39	\$ 15,420,295
	1	25,963,769	\$ 4,966,520	\$ 19.13	\$ 19.13	\$ 4,966,520			\$ 6.03	\$ 1,566,532	\$ 13.10	\$ 3,399,988
<b>TOTAL</b>	<b>52,297</b>	<b>126,130,305</b>	<b>\$ 31,707,692</b>	<b>\$ 25.14</b>	<b>\$ 25.14</b>	<b>\$ 31,707,692</b>	<b>2,412</b>	<b>\$ 606</b>	<b>\$ 10.22</b>	<b>\$ 12,887,408</b>	<b>\$ 14.92</b>	<b>\$ 18,820,283.49</b>
Four Month Ended January 2020												
R Residential	44,536	163,759,799	\$ 40,920,089	\$ 24.99	\$ 24.99	\$ 40,920,089	3,677	\$ 919	\$ 9.56	\$ 15,661,450	\$ 15.42	\$ 25,258,639
G Small Gen. Non Demand	4,063	21,472,285	\$ 6,370,771	\$ 29.67	\$ 29.67	\$ 6,370,771	5,285	\$ 1,568	\$ 14.25	\$ 3,058,843	\$ 15.42	\$ 3,311,928
J Small Gen. Demand	1,086	64,756,643	\$ 17,880,905	\$ 27.61	\$ 27.61	\$ 17,880,905	59,629	\$ 16,465	\$ 12.20	\$ 7,897,147	\$ 15.42	\$ 9,983,758
P Large General	121	99,885,421	\$ 25,755,109	\$ 25.78	\$ 25.78	\$ 25,755,109	828,925	\$ 213,735	\$ 10.43	\$ 10,420,135	\$ 15.35	\$ 15,334,973
I Independent Power Producer	2	127,053	\$ 34,117	\$ 26.85	\$ 26.85	\$ 34,117	247	\$ 66	\$ 11.95	\$ 15,188	\$ 14.90	\$ 18,928
H Private St. Lights	515	133,582	\$ 102,870	\$ 77.01	\$ 77.01	\$ 102,870	66,791	\$ 51,435	\$ 61.58	\$ 82,266	\$ 15.42	\$ 20,604
Sub-Total	50,322	350,134,783	\$ 91,063,859	\$ 26.01	\$ 26.01	\$ 91,063,859	6,958	\$ 1,810	\$ 10.61	\$ 37,135,028	\$ 15.40	\$ 53,928,831
Government Service:												
S Small Non Demand	646	2,938,961	\$ 936,696	\$ 31.87	\$ 31.87	\$ 936,696	4,551	\$ 1,451	\$ 16.45	\$ 483,385	\$ 15.42	\$ 453,311
K Small Demand	384	34,258,427	\$ 9,868,373	\$ 28.81	\$ 28.81	\$ 9,868,373	89,273	\$ 25,716	\$ 13.38	\$ 4,584,284	\$ 15.42	\$ 5,284,088
L Large	44	24,163,580	\$ 6,714,265	\$ 27.79	\$ 27.79	\$ 6,714,265	549,172	\$ 152,597	\$ 12.55	\$ 3,033,189	\$ 15.23	\$ 3,681,076
F Street Lighting (Agencies)	618	2,403,244	\$ 1,743,692	\$ 72.56	\$ 72.56	\$ 1,743,692	3,892	\$ 2,824	\$ 57.13	\$ 1,373,011	\$ 15.42	\$ 370,681
Sub-Total	1,691	63,764,212	\$ 19,263,026	\$ 30.21	\$ 30.21	\$ 19,263,026	37,708	\$ 11,391	\$ 14.86	\$ 9,473,869	\$ 15.35	\$ 9,789,157
U.S. Navy	1	102,562,895	\$ 20,344,802	\$ 19.84	\$ 19.84	\$ 20,344,802			\$ 6.13	\$ 6,292,013	\$ 13.70	\$ 14,052,789
<b>TOTAL</b>	<b>52,014</b>	<b>516,461,889</b>	<b>\$ 130,671,688</b>	<b>\$ 25.30</b>	<b>\$ 25.30</b>	<b>\$ 130,671,688</b>	<b>9,929</b>	<b>\$ 2,512</b>	<b>\$ 10.24</b>	<b>\$ 52,900,911</b>	<b>\$ 15.06</b>	<b>\$ 77,770,776</b>
Twelve Months Ended January 2020												
R Residential	44,405	499,236,892	\$ 125,044,960	\$ 25.05	\$ 25.05	\$ 125,044,960	11,243	\$ 2,816	\$ 9.62	\$ 48,041,663	\$ 15.42	\$ 77,003,297
G Small Gen. Non Demand	4,135	70,948,746	\$ 20,894,879	\$ 29.45	\$ 29.45	\$ 20,894,879	17,157	\$ 5,053	\$ 14.03	\$ 9,951,603	\$ 15.42	\$ 10,943,277
J Small Gen. Demand	1,036	191,357,993	\$ 52,585,726	\$ 27.48	\$ 27.48	\$ 52,585,726	184,708	\$ 50,758	\$ 12.06	\$ 23,083,477	\$ 15.42	\$ 29,502,249
P Large General	120	299,514,550	\$ 77,163,569	\$ 25.76	\$ 25.76	\$ 77,163,569	2,497,689	\$ 643,477	\$ 10.41	\$ 31,182,310	\$ 15.35	\$ 45,981,259
I Independent Power Producer	2	394,307	\$ 107,627	\$ 27.30	\$ 27.30	\$ 107,627	197,153	\$ 53,813	\$ 12.41	\$ 48,936	\$ 14.88	\$ 58,690
H Private St. Lights	519	396,246	\$ 308,395	\$ 77.83	\$ 77.83	\$ 308,395	764	\$ 595	\$ 62.40	\$ 247,277	\$ 15.42	\$ 61,118
Sub-Total	50,217	1,061,848,734	\$ 276,105,156	\$ 26.00	\$ 26.00	\$ 276,105,156	21,145	\$ 5,498	\$ 10.60	\$ 112,555,267	\$ 15.40	\$ 163,549,889
Government Service:												
S Small Non Demand	646	11,109,023	\$ 3,450,268	\$ 31.06	\$ 31.06	\$ 3,450,268	17,203	\$ 5,343	\$ 15.63	\$ 1,736,790	\$ 15.42	\$ 1,713,478
K Small Demand	372	100,555,758	\$ 28,879,834	\$ 28.72	\$ 28.72	\$ 28,879,834	270,493	\$ 77,686	\$ 13.30	\$ 13,369,913	\$ 15.42	\$ 15,509,921
L Large	43	72,017,630	\$ 19,992,911	\$ 27.76	\$ 27.76	\$ 19,992,911	1,668,362	\$ 463,156	\$ 12.52	\$ 9,020,097	\$ 15.24	\$ 10,972,814
F Street Lighting (Agencies)	620	8,559,273	\$ 5,614,489	\$ 65.60	\$ 65.60	\$ 5,614,489	13,807	\$ 9,057	\$ 50.17	\$ 4,294,290	\$ 15.42	\$ 1,320,199
Sub-Total	1,681	192,241,685	\$ 57,937,502	\$ 30.14	\$ 30.14	\$ 57,937,502	114,390	\$ 34,475	\$ 14.78	\$ 28,421,090	\$ 15.35	\$ 29,516,413
U.S. Navy	51,897	1,254,090,419	\$ 334,042,659	\$ 26.64	\$ 26.64	\$ 334,042,659	24,165	\$ 6,437	\$ 11.24	\$ 140,976,357	\$ 15.39	\$ 193,066,302
	1	313,851,620	\$ 63,459,307	\$ 20.22	\$ 20.22	\$ 63,459,307			\$ 6.35	\$ 19,938,116	\$ 13.87	\$ 43,521,191
<b>TOTAL</b>	<b>51,898</b>	<b>1,567,942,039</b>	<b>\$ 397,501,965</b>	<b>\$ 25.35</b>	<b>\$ 25.35</b>	<b>\$ 397,501,965</b>	<b>30,212</b>	<b>\$ 7,659</b>	<b>\$ 10.26</b>	<b>\$ 160,914,473</b>	<b>\$ 15.09</b>	<b>\$ 236,587,493</b>

CCU Regular Meeting Mach 24, 2020 - GPA

GPA-318  
318Jan20

ENERGY ACCOUNT  
FY 2020 Versus FY 2019

FOR INTERNAL USE ONLY

	January 2020	January 2019	Y T D 2020	Y T D 2019	MOVING TWELVE MONTHS
Gross Generation					
Number of days in Period	31	31	123	123	365
Peak demand	227	224	247	245	255
Date	01/31/20	01/24/19	10/23/19	11/04/19	06/06/19
	KWH % change	KWH % change	KWH % change	KWH % change	KWH % change
Energy Account:					
Kilowatt hours GPA:					
Cabras 1 & 2	53,873,000	62,935,000	219,901,000	239,370,000	738,347,000
Cabras No. 3	0	0	0	0	0
Cabras No. 4	0	0	0	0	0
MEC (ENRON) Piti 8 (IPP)	30,604,300	10,212,600	114,638,800	82,919,900	310,167,100
MEC (ENRON) Piti 9 (IPP)	25,400,400	27,648,200	109,346,600	104,443,200	295,984,770
TEMES Piti 7 (IPP)	856,760	2,583,184	18,707,810	26,586,706	41,478,299
Tanguisson 2	0	0	0	0	0
Tanguisson 1	0	0	0	0	0
Diesels/CT's & Others:					
MDI 10MW	11,229	0	112,965	68,932	746,723
NRG Solar Dandan	3,811,019	3,639,790	15,439,704	15,131,873	48,278,355
Dededo CT #1	0	70,430	1,376,910	2,715,410	3,553,310
Dededo CT #2	116,040	57,170	2,587,320	3,467,100	6,798,460
Macheche CT	4,934,096	6,038,757	21,552,254	20,488,891	54,937,547
Yigo CT (Leased)	4,144,896	5,566,310	17,591,432	20,857,251	46,004,606
Tenjo	4,466,550	800,140	18,915,740	8,693,880	38,465,230
Talofofo 10 MW	39,710	1,799,520	1,098,730	3,408,640	6,505,980
Aggreko	9,667,582	13,522,630	28,848,807	42,451,771	135,816,681
Wind Turbine*	24,365	0	36,586	10,431	170,953
Orote	0	0	0	0	0
Marbo	0	0	0	0	0
	137,949,947	134,873,732	570,154,658	570,613,986	1,727,255,014
Ratio to last year		102.28	91.40	99.92	96.02
Station use	5,386,600	5,393,681	21,869,021	21,945,362	66,814,121
Ratio to Gross generation		3.90	4.00	3.84	3.85
Net send out	132,563,347	129,480,051	548,285,637	548,668,624	1,660,440,893
Ratio to last year		102.38	91.47	99.93	96.02
KWH deliveries:					
Sales to Navy (@34.5kv)	25,963,769	24,517,651	102,562,895	102,509,341	313,851,621
Ratio to last year		105.90	91.75	100.05	95.92
GPA-metered	106,599,578	104,962,400	445,722,742	446,159,283	1,346,589,272
Ratio to last year		101.56	91.40	99.90	96.05
Power factor adj.	0	0	0	0	0
Adjusted	106,599,578	104,962,400	445,722,742	446,159,283	1,346,589,272
GPA KWH Accountability:					
Sales to civilian customers- accrual basis	100,166,537	98,071,914	413,898,994	414,296,261	1,254,090,420
Ratio to last year		102.14	91.52	99.90	95.26
GPA use-KWH	337,588	368,413	1,373,603	1,381,223	4,132,173
Unaccounted For	6,095,453	6,522,073	30,450,145	30,481,799	88,366,679
Ratio to deliveries		5.72	6.21	6.83	6.56
Ratio to Gross Generation		4.42	4.84	5.34	5.12
Ratio to Net Send Out		4.61	5.04	5.55	5.56

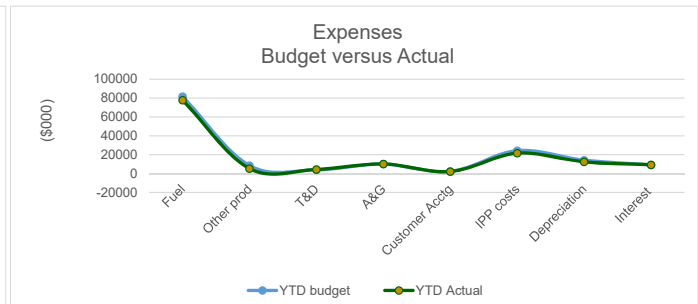
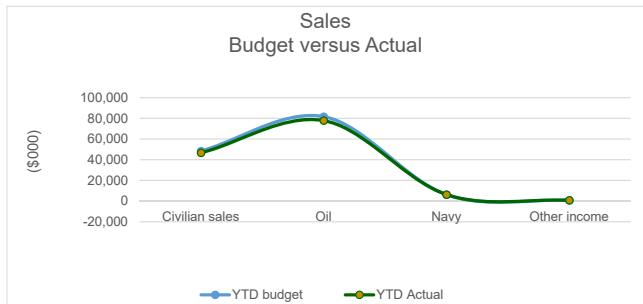
GPA-317Jan20

**Guam Power Authority  
Fuel Consumption  
FY 2020**

Description	January 2020		YEAR-TO-DATE		MOVING 12 MONTHS	
	BARRELS	AMOUNT	BARRELS	AMOUNT	BARREL S	AMOUNT
<b>FUEL FURNISHED:</b>						
<b>NAVY:</b>						
Diesel	0	0	0	0	0	0
Low Sulfur	0	0	0	0	0	0
	0	0	0	0	0	0
<b>GPA:</b>						
RFO	159,341	\$8,339,660	546,334	\$ 34,234,000	1,586,481	\$ 109,210,861
Diesel	49,907	\$4,427,427	234,780	\$ 20,839,735	696,195	\$ 63,078,061
Low Sulfur	8,187	\$494,038	134,360	\$ 9,109,922	480,885	\$ 34,852,439
Deferred Fuel Costs	0	\$4,279,020	0	\$ 7,750,114	0	\$ 11,143,081
Fuel Adjustments	0	-\$104,041		\$ (104,041)	0	\$ 83,688
Fuel Handling Costs	0	\$1,384,179	0	\$ 5,941,045	0	\$ 18,219,363
	<b>217,435</b>	<b>\$18,820,283</b>	<b>915,474</b>	<b>\$ 77,770,775</b>	<b>2,763,561</b>	<b>\$ 236,587,492</b>
<b>IWPS:</b>						
GPA RFO	159,341	\$8,339,660	546,334	\$ 34,234,000	1,586,481	\$ 109,210,861
Diesel	49,907	\$4,427,427	234,780	\$ 20,839,735	696,195	\$ 63,078,061
Low Sulfur	8,187	\$494,038	134,360	\$ 9,109,922	480,885	\$ 34,852,439
Deferred Fuel Costs	0	\$4,279,020	0	\$ 7,750,114	0	\$ 11,143,081
Fuel Variance	0	-\$104,041	0	\$ (104,041)		\$ 83,688
Fuel Handling Costs	0	\$1,384,179	0	\$ 5,941,045	0	\$ 18,219,363
	<b>217,435</b>	<b>\$18,820,283</b>	<b>915,474</b>	<b>\$ 77,770,775</b>	<b>2,763,561</b>	<b>\$ 236,587,492</b>
<b>AVERAGE COST/Bbl.</b>						
GPA RFO		<b>\$52.34</b>		<b>\$62.66</b>		<b>\$68.84</b>
Diesel		<b>\$88.71</b>		<b>\$88.76</b>		<b>\$90.60</b>
Low Sulfur		<b>\$60.34</b>		<b>\$67.80</b>		<b>\$72.48</b>
<b>AS BURNED</b>						
<b>Cabras 1 &amp; 2</b>						
RFO	86,562	\$ 4,480,454	296,899	\$ 18,687,467	930,496	\$ 64,437,435
Low Sulfur	4,729	\$ 289,983	80,124	\$ 5,433,462	321,159	\$ 23,455,162
Diesel	81	\$ 7,679	352	\$ 32,797	1,490	\$ 136,594
	91,372	\$ 4,778,115	377,375	\$ 24,153,725	1,253,145	\$ 88,029,191
<b>Cabras 3 &amp; 4</b>						
RFO	0	\$ -	0	\$ -	0	\$ -
Low Sulfur	0	\$ -	0	\$ -	0	\$ -
Diesel	0	\$ -	0	\$ -	0	\$ -
	0	\$ -	0	\$ -	0	\$ -
<b>MEC (Piti Units 8&amp;9)</b>						
RFO	72,779	\$ 3,859,206	249,436	\$ 15,546,533	655,985	\$ 44,773,425
Low Sulfur	3,458	\$ 204,055	54,236	\$ 3,676,460	159,726	\$ 11,397,277
Diesel	0	\$ -	6	\$ 394	40	\$ 2,806
	76,236	\$ 4,063,261	303,677	\$ 19,223,388	815,750	\$ 56,173,508
<b>Diesel &amp; CT's - GPA:</b>						
MDI Dsl	0	\$ -	164	\$ 15,509	1,128	\$ 96,637
Macheche CT	11,089	\$ 972,200	47,455	\$ 4,154,045	120,826	\$ 10,744,616
Yigo CT	9,319	\$ 824,493	38,520	\$ 3,379,508	100,907	\$ 8,958,202
Talofofo 10 MW	0	\$ -	1,856	\$ 162,054	11,490	\$ 1,032,928
Aggreko	18,937	\$ 1,678,281	54,150	\$ 4,758,713	251,680	\$ 22,545,774
Tenjo	7,695	\$ 701,690	32,275	\$ 3,006,710	66,330	\$ 6,626,785
TEMES (IPP)	2,475	\$ 215,637	47,983	\$ 4,232,503	109,893	\$ 9,888,297
GWA Generators	4	\$ 569	213	\$ 28,424	1,004	\$ 130,453
	49,826	\$ 4,419,749	234,422	\$ 20,806,544	694,666	\$ 62,938,661
Deferred Fuel Costs	0	\$ 4,279,020		\$ 7,750,114		\$ 11,143,081
Adjustment		\$ (104,041)		\$ (104,041)		\$ 83,688
Fuel Handling Costs	0	\$ 1,384,179		\$ 5,941,045		\$ 18,219,363
<b>TOTAL</b>	<b>217,434</b>	<b>\$ 18,820,283</b>	<b>915,474</b>	<b>\$ 77,770,775</b>	<b>2,763,561</b>	<b>\$ 236,587,492</b>

**Statement of operations**  
**Comparison-Budget versus Actual**  
**For the month and year to date ended January 31, 2020**

	Budget	Actual January-20	Variance	YTD Budget	YTD Actual	Variance
KwH Sales-Civilian	101,683	103,048	-1,365	429,772	416,781	12,991
Non-fuel yield	\$ 0.112661	\$ 0.109861	\$ 0.002799	\$ 0.112332	\$ 0.111831	\$ 0.000501
KwH Sales-Navy	23,773	25,910	-2,137	96,078	102,509	-6,431
Non-fuel yield	\$ 0.062452	\$ 0.060479	\$ 0.001973	\$ 0.064609	\$ 0.061390	\$ 0.003219
Operating revenue						
Civilian sales	\$ 11,456	\$ 11,321	\$ 135	\$ 48,323	\$ 46,609	\$ 1,714
Oil	19,351	18,820	531	81,620	77,770	3,850
Navy	1,485	1,567	(82)	6,208	6,293	(85)
Other income	180	529	(349)	720	753	(33)
	<u>\$ 32,471</u>	<u>\$ 32,237</u>	<u>\$ 234</u>	<u>\$ 136,870</u>	<u>\$ 131,425</u>	<u>\$ 5,445</u>
Bad debts expense	91	91	(0)	364	364	(0)
Total operating revenues	\$ 32,380	\$ 32,146	\$ 234	\$ 136,507	\$ 131,061	\$ 5,445
Operating expenses:						
Production fuel	\$ 19,351	\$ 18,820	\$ 530	\$ 81,620	\$ 77,771	\$ 3,849
O & M expenses:						
Other production	2,137	1,406	731	8,479	5,296	3,183
Transmission distribution	1,137	1,197	(60)	3,938	4,350	(412)
Administrative expense	2,766	2,404	361	10,088	10,209	(120)
Customer accounting	477	423	53	1,769	1,749	20
	<u>6,516</u>	<u>5,430</u>	<u>1,086</u>	<u>24,274</u>	<u>21,604</u>	<u>2,670</u>
IPP costs	1,246	1,243	3	4,985	4,274	710
Depreciation	3,543	3,322	221	14,173	12,438	1,734
	<u>\$ 30,656</u>	<u>\$ 28,816</u>	<u>\$ 1,840</u>	<u>\$ 125,052</u>	<u>\$ 116,087</u>	<u>\$ 8,964</u>
Operating income	\$ 1,724	\$ 3,331	\$ (1,607)	\$ 11,455	\$ 14,974	\$ (3,519)
Other revenue (expenses):						
Investment income	167	269	(102)	668	1,145	(477)
Interest expense	(2,315)	(2,326)	11	(9,261)	(9,285)	25
Losses due to typhoon	-	(92)	92	-	(165)	165
Bond issuance costs/Other expenses	139	85	54	556	340	216
Net income before capital contribution	(285)	1,267	(1,552)	3,418	7,009	(3,591)
Grants from the U.S. Government	-	-	-	-	-	-
Increase (decrease) in net assets	\$ (285)	\$ 1,267	\$ (1,553)	\$ 3,418	\$ 7,009	\$ (3,592)





**Guam Power Authority**  
**Debt service coverage**  
**January 31, 2020**

	2016	Restated 2017	Audited 2018	YTD Unaudited 2019	YTD Unaudited 2020
<b>Funds Available for Debt Service</b>					
Earnings from Operations	\$ 37,981	\$ 36,522	\$ 38,164	\$ 44,818	\$ 14,971
Interest Income	57	122	620	5,008	792
Depreciation Expense	44,240	44,292	37,184	37,344	12,438
Balance Available for Debt Service	\$ 82,278	\$ 80,936	\$ 75,968	\$ 87,170	\$ 28,201
<b>IPP - Capital Costs</b>					
Principal	\$ 14,819	\$ 20,796	\$ 23,210	\$ 13,470	\$ 2,800
Interest	5,970	5,609	3,159	1,068	177
Total IPP Payments	\$ 20,789	\$ 26,405	\$ 26,369	\$ 14,538	\$ 2,977
<b>Bond Debt Service</b>					
Principal (1993 & 1999 Revenue Bond)	\$ -	\$ -	\$ -	\$ -	\$ -
Interest (1993 & 1999 Revenue Bond)	-	-	-	-	-
Principal and Interest (2010 Subordinate Bond)	-	-	-	-	-
Principal and Interest (2010 Senior TE Bond)	7,999	7,999	2,000	-	-
Principal and Interest (2012 Senior TE Bond)	17,098	17,449	17,086	31,467	11,744
Principal and Interest (2014 Senior TE Bond)	10	5,084	5,083	5,084	1,696
Principal and Interest (2017 Senior TE Bond)	-	-	5,916	7,607	2,472
Total	\$ 25,107	\$ 30,532	\$ 30,086	\$ 44,158	\$ 15,912
<b>Debt Service Coverage (DSC) Calculation</b>					
Existing DSC Methodology (Senior)	2.45 x	1.79 x	1.65 x	1.64 x	1.59 x
Existing DSC Methodology (Senior+Subordinate)	2.45 x	1.79 x	1.65 x	1.64 x	1.59 x
Bond Covenant DSC	3.28 x	2.65 x	2.53 x	1.97 x	1.77 x
<b>Debt Service Coverage Requirements</b>					
Existing Ratemaking DSC Target	1.75 x	1.75 x	1.75 x	1.75 x	1.75 x
Minimum Bond Covenant Requirement (Senior Bond)	1.30 x	1.30 x	1.30 x	1.30 x	1.30 x
Minimum Bond Covenant Requirement (Subordinate Bond)	1.20 x	1.20 x	1.20 x	1.20 x	1.20 x

**Notes:**

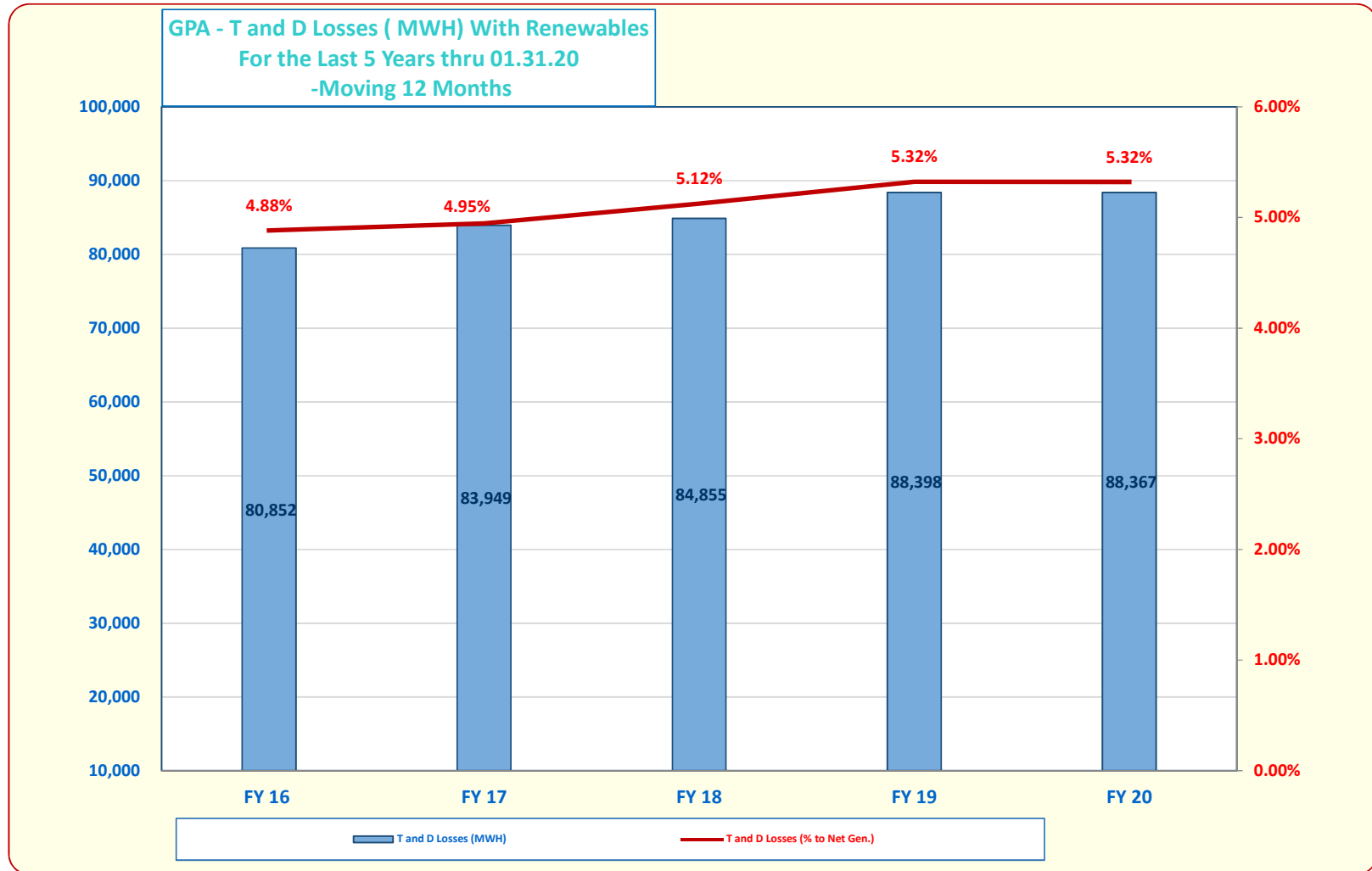
- (1) Source: Guam Power Authority, 2014 - 2018 Audited Financial Statements
- (2) Interest income is net of interest earnings in the Construction Fund and the amortization of deferred credit.
- (3) Existing DSC Methodology (Rating Agency Method):  
 (Operating Earnings + Depreciation Expense - IPP Principal & Interest Payments)/  
 (Senior and Subordinate Bond Principal & Interest Payments)
- (4) Bond Covenant DSC Methodology: (Operating Earnings + Depreciation Expense)/  
 (Senior and Subordinate Bond Principal & Interest Payments)

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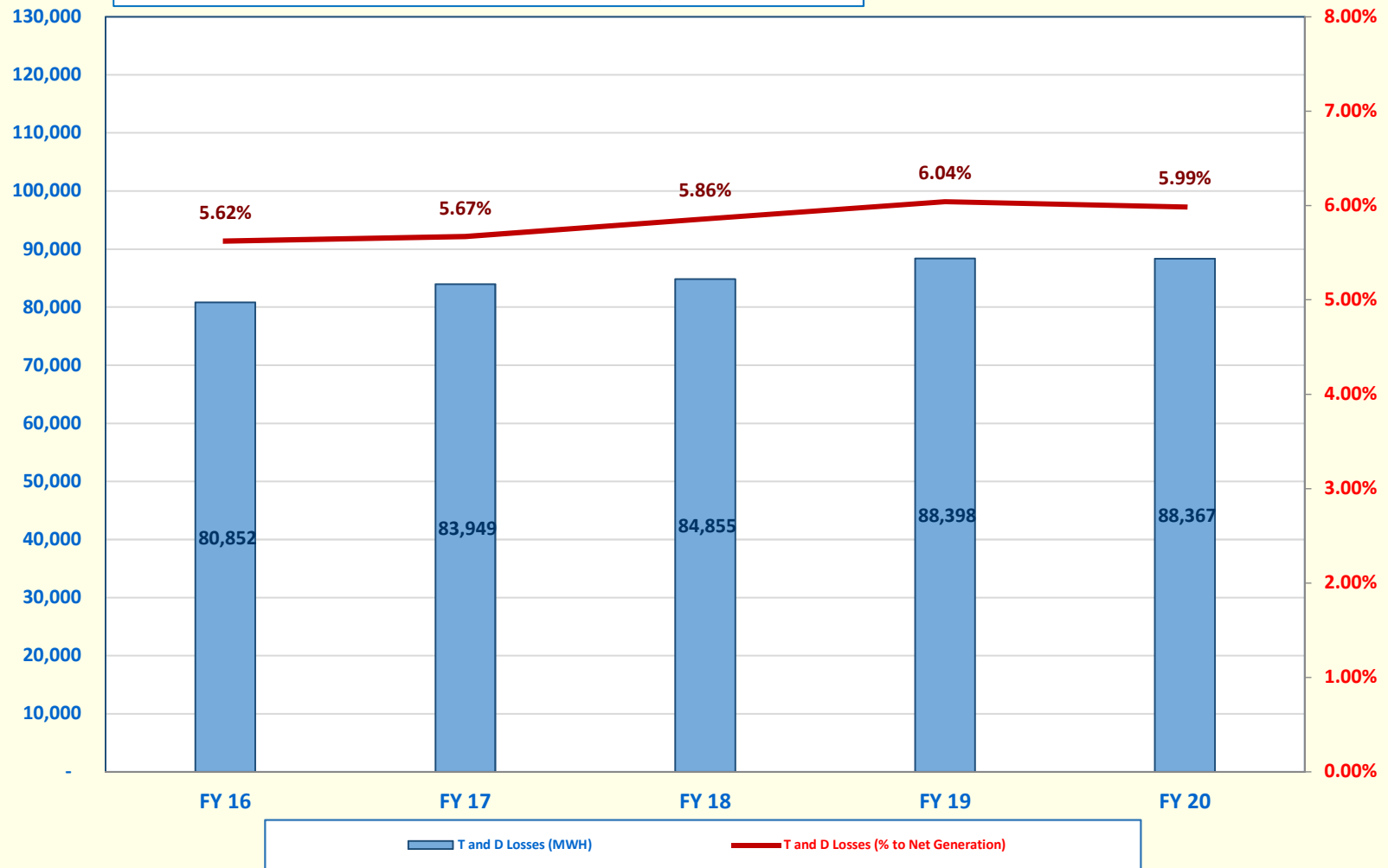
REVENUES-ACTUAL VS PROJECTIONS								
MONTHLY - JANUARY 2020					YTD THRU 01/31/20			
	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE
<b>KWH</b>								
Residential	38,391,539	38,780,579	389,040	1.01%	168,908,310	163,759,799	(5,148,511)	-3.05%
Small General-Non-Demand	6,823,653	5,360,912	(1,462,741)	-21.44%	29,055,811	21,472,285	(7,583,527)	-26.10%
Small General-Demand	14,799,496	16,008,372	1,208,877	8.17%	60,521,175	64,756,643	4,235,468	7.00%
Large	25,947,179	24,478,138	(1,469,041)	-5.66%	106,152,813	99,885,421	(6,267,392)	-5.90%
Independent Power Producers	32,768	29,711	(3,058)	-9.33%	134,059	127,053	(7,006)	-5.23%
Private St. Lites	5,068	34,228	29,160	575.34%	20,625	133,582	112,957	547.67%
<b>Sub-total</b>	<b>85,999,703</b>	<b>84,691,941</b>	<b>(1,307,762)</b>	<b>-1.52%</b>	<b>364,792,794</b>	<b>350,134,783</b>	<b>(14,658,012)</b>	<b>-4.02%</b>
Government								
Small_Non Demand	1,132,025	688,336	(443,689)	-39.19%	4,882,839	2,938,961	(1,943,878)	-39.81%
Small-Demand	7,530,706	8,429,943	899,236	11.94%	30,699,034	34,258,427	3,559,393	11.59%
Large	6,328,119	5,741,099	(587,020)	-9.28%	26,410,944	24,163,580	(2,247,364)	-8.51%
Public St. Lites	691,975	615,219	(76,757)	-11.09%	2,986,478	2,403,244	(583,234)	-19.53%
<b>Sub-total</b>	<b>15,682,826</b>	<b>15,474,596</b>	<b>(208,230)</b>	<b>-1.33%</b>	<b>64,979,295</b>	<b>63,764,212</b>	<b>(1,215,083)</b>	<b>-1.87%</b>
<b>Total-Civilian</b>	<b>101,682,529</b>	<b>100,166,537</b>	<b>(1,515,992)</b>	<b>-1.49%</b>	<b>429,772,089</b>	<b>413,898,994</b>	<b>(15,873,095)</b>	<b>-3.69%</b>
USN	23,773,280	25,963,769	2,190,489	9.21%	99,397,095	102,562,895	3,165,800	3.19%
<b>Grand Total</b>	<b>125,455,809</b>	<b>126,130,305</b>	<b>674,497</b>	<b>0.54%</b>	<b>529,169,184</b>	<b>516,461,889</b>	<b>(12,707,294)</b>	<b>-2.40%</b>
<b>Non-Oil Yield</b>								
Residential	0.096264	0.093324	(0.002940)	-3.05%	0.096264	0.095637	(0.000628)	-0.65%
Small General-Non-Demand	0.136877	0.140971	0.004094	2.99%	0.136877	0.142455	0.005579	4.08%
Small General-Demand	0.120054	0.123483	0.003429	2.86%	0.120054	0.121951	0.001898	1.58%
Large	0.104208	0.106480	0.002272	2.18%	0.104208	0.104321	0.000113	0.11%
Independent Power Producers	0.626461	0.112587	(0.513874)	0.00%	0.626461	0.119544	(0.506917)	0.00%
Private St. Lites	0.114929	0.599125	0.484196	421.30%	0.114929	0.615844	0.500915	435.85%
<b>Sub-total</b>	<b>0.106180</b>	<b>0.106054</b>	<b>(0.000126)</b>	<b>-0.12%</b>	<b>0.105953</b>	<b>0.106059</b>	<b>0.000106</b>	<b>0.10%</b>
Government								
Small_Non Demand	0.150486	0.167971	0.017485	11.62%	0.150486	0.164475	0.013989	9.30%
Small-Demand	0.135060	0.135860	0.000800	0.59%	0.135060	0.133815	(0.001245)	-0.92%
Large	0.127855	0.127851	(0.000004)	0.00%	0.127855	0.125527	(0.002328)	-1.82%
Public St. Lites	0.473421	0.559161	0.085740	18.11%	0.473421	0.571316	0.097895	20.68%
<b>Sub-total</b>	<b>0.148196</b>	<b>0.151146</b>	<b>0.002950</b>	<b>1.99%</b>	<b>0.148842</b>	<b>0.148577</b>	<b>(0.000265)</b>	<b>-0.18%</b>
<b>Total-Civilian</b>	<b>0.112661</b>	<b>0.113021</b>	<b>0.000360</b>	<b>0.32%</b>	<b>0.154242</b>	<b>0.112609</b>	<b>(0.041633)</b>	<b>-26.99%</b>
USN	0.062452	0.060335	(0.002116)	-3.39%	0.062452	0.061348	(0.001104)	-1.77%
<b>Grand Total</b>	<b>0.103146</b>	<b>0.102175</b>	<b>(0.000971)</b>	<b>-0.94%</b>	<b>0.103049</b>	<b>0.102429</b>	<b>(0.000619)</b>	<b>-0.60%</b>
<b>Non-Oil Revenues</b>								
Residential	3,695,742	3,619,175	(76,566)	-2.07%	16,259,872	15,661,450	(598,422)	-3.68%
Small General-Non-Demand	933,999	755,733	(178,266)	-19.09%	3,977,062	3,058,843	(918,219)	-23.09%
Small General-Demand	1,776,732	1,976,761	200,029	11.26%	7,265,782	7,897,147	631,365	8.69%
Large	2,703,901	2,606,430	(97,471)	-3.60%	11,061,960	10,420,135	(641,825)	-5.80%
Independent Power Producers	20,528	3,345	(17,183)	-83.71%	83,983	15,188	(68,795)	-81.91%
Private St. Lites	583	20,507	19,925	3420.53%	2,370	82,266	79,896	3370.51%
<b>Sub-total</b>	<b>9,131,484</b>	<b>8,981,952</b>	<b>(149,532)</b>	<b>-1.64%</b>	<b>38,651,029</b>	<b>37,135,028</b>	<b>(1,516,001)</b>	<b>-3.92%</b>
Government								
Small_Non Demand	170,354	115,620	(54,733)	-32.13%	734,797	483,385	(251,412)	-34.22%
Small-Demand	1,017,096	1,145,293	128,197	12.60%	4,146,206	4,584,284	438,078	10.57%
Large	809,082	734,005	(75,076)	-9.28%	3,376,771	3,033,189	(343,582)	-10.17%
Public St. Lites	327,595	344,006	16,411	5.01%	1,413,860	1,373,011	(40,849)	-2.89%
<b>Sub-total</b>	<b>2,324,126</b>	<b>2,338,925</b>	<b>14,798</b>	<b>0.64%</b>	<b>9,671,635</b>	<b>9,473,869</b>	<b>(197,766)</b>	<b>-2.04%</b>
<b>Total-Civilian</b>	<b>11,455,610</b>	<b>11,320,876</b>	<b>(134,734)</b>	<b>-1.18%</b>	<b>48,322,664</b>	<b>46,608,898</b>	<b>(1,713,766)</b>	<b>-3.55%</b>
USN	1,484,680	1,566,532	81,852	5.51%	6,207,511	6,292,013	84,503	1.36%
<b>Grand Total</b>	<b>12,940,290</b>	<b>12,887,408</b>	<b>(52,882)</b>	<b>-0.41%</b>	<b>54,530,174</b>	<b>52,900,911</b>	<b>(1,629,263)</b>	<b>-2.99%</b>
% of Total Revenues	40.07%	40.64%			40.05%	40.48%		
<b>Oil Revenues</b>								
Residential	5,921,588	5,981,594	60,006	1.01%	26,052,756	25,258,639	(794,117)	-3.05%
Small General-Non-Demand	1,052,494	826,878	(225,616)	-21.44%	4,481,626	3,311,928	(1,169,698)	-26.10%
Small General-Demand	2,282,704	2,468,122	185,418	8.12%	9,334,907	9,983,758	648,851	6.95%
Large	4,002,145	3,758,448	(243,697)	-6.09%	16,373,222	15,334,973	(1,038,249)	-6.34%
Independent Power Producers	5,054	4,430	(624)	-12.34%	20,678	18,928	(1,749)	-8.46%
Private St. Lites	782	5,279	4,498	575.34%	3,181	20,604	17,423	547.67%
<b>Sub-total</b>	<b>13,264,766</b>	<b>13,044,752</b>	<b>(220,014)</b>	<b>-1.66%</b>	<b>56,266,370</b>	<b>53,928,831</b>	<b>(2,337,539)</b>	<b>-4.15%</b>
Government								
Small_Non Demand	174,606	106,170	(68,436)	-39.19%	753,139	453,311	(299,828)	-39.81%
Small-Demand	1,161,551	1,300,251	138,700	11.94%	4,735,080	5,284,088	549,008	11.59%
Large	976,062	874,230	(101,832)	-10.43%	4,073,677	3,681,076	(392,601)	-9.64%
Public St. Lites	106,732	94,893	(11,839)	-11.09%	460,640	370,681	(89,959)	-19.53%
<b>Sub-total</b>	<b>2,418,950</b>	<b>2,375,544</b>	<b>(43,407)</b>	<b>-1.79%</b>	<b>10,022,636</b>	<b>9,789,157</b>	<b>(233,380)</b>	<b>-2.33%</b>
<b>Total-Civilian</b>	<b>15,683,717</b>	<b>15,420,295</b>	<b>(263,421)</b>	<b>-1.68%</b>	<b>66,288,907</b>	<b>63,717,987</b>	<b>(2,570,919)</b>	<b>-3.88%</b>
USN	3,666,838	3,399,988	(266,850)	-7.28%	15,331,207	14,052,789	(1,278,418)	-8.34%
<b>Grand Total</b>	<b>19,350,555</b>	<b>18,820,283</b>	<b>(530,271)</b>	<b>-2.74%</b>	<b>81,620,113</b>	<b>77,770,776</b>	<b>(3,849,337)</b>	<b>-4.72%</b>
% of Total Revenues	59.93%	59.36%			59.95%	59.52%		
<b>Grand Total</b>								
Residential	9,617,330	9,600,770	(16,560)	-0.17%	42,312,627	40,920,089	(1,392,539)	-3.29%
Small General-Non-Demand	1,986,492	1,582,611	(403,882)	-20.33%	8,458,688	6,370,771	(2,087,918)	-24.68%
Small General-Demand	4,059,436	4,444,883	385,447	9.50%	16,600,689	17,880,905	1,280,216	7.71%
Large	6,706,045	6,364,878	(341,168)	-5.09%	27,435,182	25,755,109	(1,680,074)	-6.12%
Independent Power Producers	25,582	7,776	(17,807)	-69.61%	104,661	34,117	(70,544)	-67.40%
Private St. Lites	1,364	25,787	24,422	1790.16%	5,552	102,870	97,318	1752.95%
<b>Sub-total</b>	<b>22,396,250</b>	<b>22,026,703</b>	<b>(369,547)</b>	<b>-1.65%</b>	<b>94,917,399</b>	<b>91,063,859</b>	<b>(3,853,540)</b>	<b>-4.06%</b>
Government								
Small_Non Demand	344,959	221,791	(123,169)	-35.71%	1,487,936	936,696	(551,240)	-37.05%
Small-Demand	2,178,647	2,445,544	266,897	12.25%	8,881,287	9,868,373	987,086	11.11%
Large	1,785,143	1,608,235	(176,908)	-9.91%	7,450,448	6,714,265	(736,182)	-9.88%
Public St. Lites	434,327	438,899	4,572	1.05%	1,874,500	1,743,692	(130,809)	-6.98%
<b>Sub-total</b>	<b>4,743,077</b>	<b>4,714,468</b>	<b>(28,609)</b>	<b>-0.60%</b>	<b>19,694,171</b>	<b>19,263,026</b>	<b>(431,145)</b>	<b>-2.19%</b>
<b>Total-Civilian</b>	<b>27,139,327</b>	<b>26,741,172</b>	<b>(398,155)</b>	<b>-1.47%</b>	<b>114,611,570</b>	<b>110,326,885</b>	<b>(4,284,685)</b>	<b>-3.74%</b>
USN	5,151,518	4,966,520	(184,998)	-3.59%	21,538,717	20,344,802	(1,193,915)	-5.54%
<b>Grand Total</b>	<b>32,290,845</b>	<b>31,707,692</b>	<b>(583,153)</b>	<b>-1.81%</b>	<b>136,150,287</b>	<b>130,671,688</b>	<b>(5,478,600)</b>	<b>-4.02%</b>

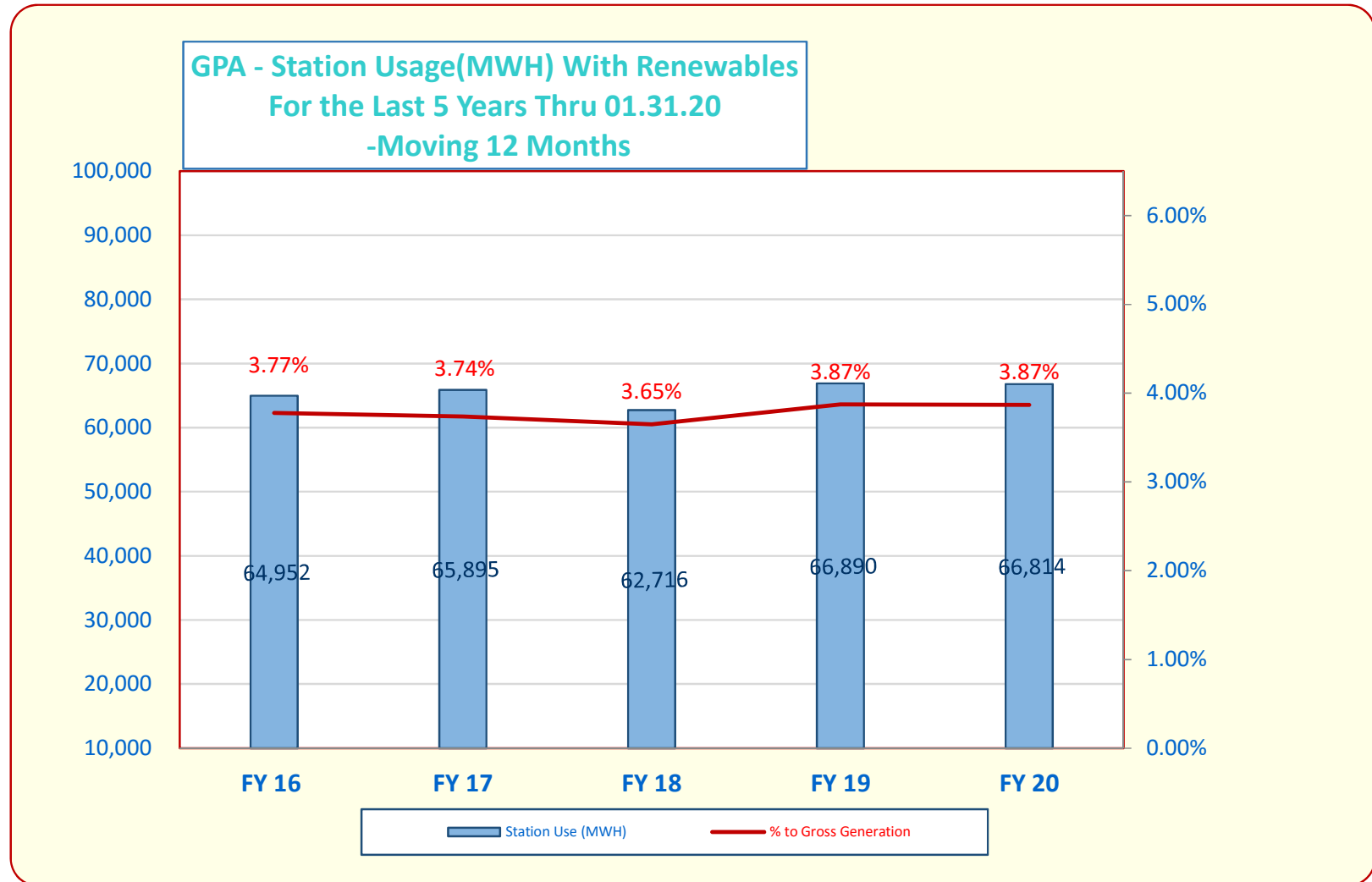
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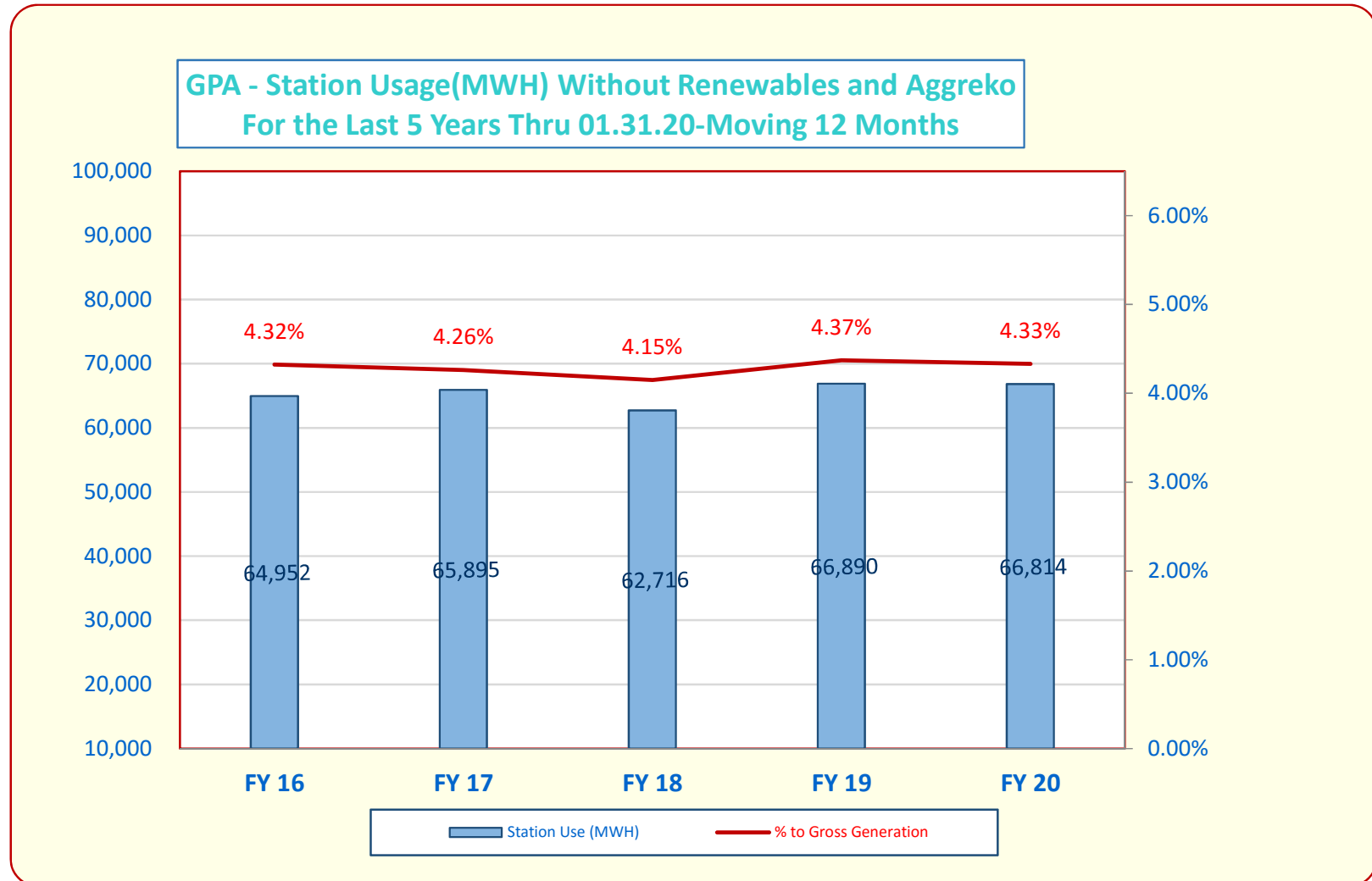
YTD REVENUES - CURRENT YEAR VS PRIOR YEAR					MTD REVENUES - CURRENT YEAR VS PRIOR YEAR			
ACTUALS - 4 MONTHS ENDED JANUARY 31					ACTUALS - MONTH ENDED JANUARY 31			
	2019	2018	VARIANCE	% VARIANCE	2019	2018	VARIANCE	% VARIANCE
<b>KWH</b>								
Residential	163,759,799	161,295,534	2,464,265	1.53%	38,780,579	36,661,215	2,119,365	5.78%
Small General-Non-Demand	21,472,285	26,624,489	(5,152,204)	-19.35%	5,360,912	6,252,665	(891,753)	-14.26%
Small General-Demand	64,756,643	61,038,723	3,717,919	6.09%	16,008,372	14,926,054	1,082,318	7.25%
Large	99,885,421	101,649,800	(1,764,379)	-1.74%	24,478,138	24,846,497	(368,359)	-1.48%
Independent Power Producers	127,053	131,003	(3,950)	-3.02%	29,711	36,117	(6,407)	-17.74%
Private St. Lites	133,582	133,794	(212)	-0.16%	34,228	32,878	1,350	4.11%
<b>Sub-total</b>	<b>350,134,783</b>	<b>350,873,343</b>	<b>(738,561)</b>	<b>-0.21%</b>	<b>84,691,941</b>	<b>82,755,426</b>	<b>1,936,515</b>	<b>2.34%</b>
Government								
Small_Non Demand	2,938,961	4,600,292	(1,661,331)	-36.11%	688,336	1,066,520	(378,184)	-35.46%
Small-Demand	34,258,427	31,603,730	2,654,697	8.40%	8,429,943	7,752,635	677,307	8.74%
Large	24,163,580	24,133,328	30,251	0.13%	5,741,099	5,782,397	(41,299)	-0.71%
Public St. Lites	2,403,244	3,085,567	(682,323)	-22.11%	615,219	714,935	(99,716)	-13.95%
<b>Sub-total</b>	<b>63,764,212</b>	<b>63,422,918</b>	<b>341,294</b>	<b>0.54%</b>	<b>15,474,596</b>	<b>15,316,487</b>	<b>158,108</b>	<b>1.03%</b>
<b>Total-Civilian</b>	<b>413,898,994</b>	<b>414,296,261</b>	<b>(397,267)</b>	<b>-0.10%</b>	<b>100,166,537</b>	<b>98,071,914</b>	<b>2,094,623</b>	<b>2.14%</b>
USN	102,562,895	102,509,341	53,554	0.05%	25,963,769	24,517,651	1,446,118	5.90%
<b>Grand Total</b>	<b>516,461,889</b>	<b>516,805,602</b>	<b>(343,713)</b>	<b>-0.07%</b>	<b>126,130,305</b>	<b>122,589,564</b>	<b>3,540,741</b>	<b>2.89%</b>
<b>Non-Oil Yield</b>								
Residential	0.095637	0.095866	-0.000229	-0.24%	0.093324	0.094236	-0.000911	-0.97%
Small General-Non-Demand	0.142455	0.138021	0.004434	3.21%	0.140971	0.140688	0.000283	0.20%
Small General-Demand	0.121951	0.120453	0.001498	1.24%	0.123483	0.122886	0.000597	0.49%
Large	0.104321	0.103593	0.000728	0.70%	0.106480	0.105430	0.001050	1.00%
Independent Power Producers	0.119544	0.131202	-0.011657	-8.88%	0.112587	0.131403	-0.018816	-14.32%
Private St. Lites	0.615844	0.624431	-0.008587	-1.38%	0.599125	0.639588	-0.040463	-6.33%
<b>Sub-total</b>	<b>0.106059</b>	<b>0.105795</b>	<b>0.000264</b>	<b>0.25%</b>	<b>0.106054</b>	<b>0.106507</b>	<b>-0.000453</b>	<b>-0.42%</b>
Government								
Small_Non Demand	0.164475	0.151216	0.013259	8.77%	0.167971	0.153566	0.014404	9.38%
Small-Demand	0.133815	0.134339	-0.000524	-0.39%	0.135860	0.135727	0.000133	0.10%
Large	0.125527	0.124619	0.000909	0.73%	0.127851	0.126950	0.000901	0.71%
Public St. Lites	0.571316	0.474085	0.097230	20.51%	0.559161	0.496950	0.062211	12.52%
<b>Sub-total</b>	<b>0.148577</b>	<b>0.148393</b>	<b>0.000183</b>	<b>0.12%</b>	<b>0.151146</b>	<b>0.150517</b>	<b>0.000629</b>	<b>0.42%</b>
<b>Total-Civilian</b>	<b>0.112609</b>	<b>0.112316</b>	<b>0.000293</b>	<b>0.26%</b>	<b>0.113021</b>	<b>0.113380</b>	<b>-0.000360</b>	<b>-0.32%</b>
USN	0.061348	0.061642	-0.000294	-0.48%	0.060335	0.061052	-0.000717	-1.17%
<b>Grand Total</b>	<b>0.102429</b>	<b>0.102265</b>	<b>0.000165</b>	<b>0.16%</b>	<b>0.102175</b>	<b>0.102915</b>	<b>-0.000739</b>	<b>-0.72%</b>
<b>Non-Oil Revenues</b>								
Residential	15,661,450	15,462,700	198,749	1.29%	3,619,175	3,454,800	164,376	4.76%
Small General-Non-Demand	3,058,843	3,674,741	(615,898)	-16.76%	755,733	879,676	(123,944)	-14.09%
Small General-Demand	7,897,147	7,352,322	544,825	7.41%	1,976,761	1,834,209	142,552	7.77%
Large	10,420,135	10,530,202	(110,067)	-1.05%	2,606,430	2,619,572	(13,142)	-0.50%
Independent Power Producers	15,188	17,188	(1,999)	-11.63%	3,345	4,746	(1,401)	-29.52%
Private St. Lites	82,266	83,545	(1,280)	-1.53%	20,507	21,029	(521)	-2.48%
<b>Sub-total</b>	<b>37,135,028</b>	<b>37,120,698</b>	<b>14,330</b>	<b>0.04%</b>	<b>8,981,952</b>	<b>8,814,031</b>	<b>167,921</b>	<b>1.91%</b>
Government								
Small_Non Demand	483,385	695,639	(212,254)	-30.51%	115,620	163,781	(48,161)	-29.41%
Small-Demand	4,584,284	4,245,604	338,680	7.98%	1,145,293	1,052,241	93,052	8.84%
Large	3,033,189	3,007,466	25,724	0.86%	734,005	734,076	(71)	-0.01%
Public St. Lites	1,373,011	1,462,822	(89,811)	-6.14%	344,006	355,287	(11,281)	-3.18%
<b>Sub-total</b>	<b>9,473,869</b>	<b>9,411,531</b>	<b>62,338</b>	<b>0.66%</b>	<b>2,338,925</b>	<b>2,305,386</b>	<b>33,539</b>	<b>1.45%</b>
<b>Total-Civilian</b>	<b>46,608,898</b>	<b>46,532,229</b>	<b>76,669</b>	<b>0.16%</b>	<b>11,320,876</b>	<b>11,119,417</b>	<b>201,460</b>	<b>1.81%</b>
USN	6,292,013	6,318,871	(26,858)	-0.43%	1,566,532	1,496,858	69,674	4.65%
<b>Grand Total</b>	<b>52,900,911</b>	<b>52,851,101</b>	<b>49,811</b>	<b>0.09%</b>	<b>12,887,408</b>	<b>12,616,275</b>	<b>271,134</b>	<b>2.15%</b>
% of Total Revenues								
<b>Oil Revenues</b>								
Residential	25,258,639	24,878,546	380,093	1.53%	5,981,594	5,654,699	326,895	5.78%
Small General-Non-Demand	3,311,928	4,106,614	(794,686)	-19.35%	826,878	964,424	(137,546)	-14.26%
Small General-Demand	9,983,758	9,410,768	572,991	6.09%	2,468,122	2,301,253	166,869	7.25%
Large	15,334,973	15,604,651	(269,677)	-1.73%	3,758,448	3,814,395	(55,947)	-1.47%
Independent Power Producers	18,928	19,490	(562)	-2.88%	4,430	5,371	(940)	-17.51%
Private St. Lites	20,604	20,637	(33)	-0.16%	5,279	5,071	208	4.11%
<b>Sub-total</b>	<b>53,928,831</b>	<b>54,040,705</b>	<b>(111,875)</b>	<b>-0.21%</b>	<b>13,044,752</b>	<b>12,745,212</b>	<b>299,540</b>	<b>2.35%</b>
Government								
Small_Non Demand	453,311	709,558	(256,247)	-36.11%	106,170	164,502	(58,332)	-35.46%
Small-Demand	5,284,088	4,874,623	409,466	8.40%	1,300,251	1,195,782	104,469	8.74%
Large	3,681,076	3,677,187	3,889	0.11%	874,230	880,856	(6,626)	-0.75%
Public St. Lites	370,681	475,924	(105,243)	-22.11%	94,893	110,273	(15,380)	-13.95%
<b>Sub-total</b>	<b>9,789,157</b>	<b>9,737,292</b>	<b>51,865</b>	<b>0.53%</b>	<b>2,375,544</b>	<b>2,351,413</b>	<b>24,130</b>	<b>1.03%</b>
<b>Total-Civilian</b>	<b>63,717,987</b>	<b>63,777,997</b>	<b>(60,010)</b>	<b>-0.09%</b>	<b>15,420,295</b>	<b>15,096,625</b>	<b>323,670</b>	<b>2.14%</b>
USN	14,052,789	16,273,436	(2,220,647)	-13.65%	3,399,988	3,724,999	(325,011)	-8.73%
<b>Grand Total</b>	<b>77,770,776</b>	<b>80,051,434</b>	<b>(2,280,657)</b>	<b>-2.85%</b>	<b>18,820,283</b>	<b>18,821,624</b>	<b>(1,341)</b>	<b>-0.01%</b>
% of Total Revenues								
<b>Grand Total</b>								
Residential	40,920,089	40,341,246	578,843	1.43%	9,600,770	9,109,499	491,271	5.39%
Small General-Non-Demand	6,370,771	7,781,355	(1,410,585)	-18.13%	1,582,611	1,844,100	(261,489)	-14.18%
Small General-Demand	17,880,905	16,763,089	1,117,816	6.67%	4,444,883	4,135,462	309,422	7.48%
Large	25,755,109	26,134,853	(379,744)	-1.45%	6,364,878	6,433,966	(69,089)	-1.07%
Independent Power Producers	34,117	36,678	(2,562)	-6.98%	7,776	10,117	(2,341)	-23.14%
Private St. Lites	102,870	104,182	(1,312)	-1.26%	25,787	26,100	(313)	-1.20%
<b>Sub-total</b>	<b>91,063,859</b>	<b>91,161,403</b>	<b>(97,544)</b>	<b>-0.11%</b>	<b>22,026,703</b>	<b>21,559,243</b>	<b>467,460</b>	<b>2.17%</b>
Government								
Small_Non Demand	936,696	1,405,197	(468,501)	-33.34%	221,791	328,284	(106,493)	-32.44%
Small-Demand	9,868,373	9,120,227	748,146	8.20%	2,445,544	2,248,023	197,521	8.79%
Large	6,714,265	6,684,653	29,612	0.44%	1,608,235	1,614,932	(6,697)	-0.41%
Public St. Lites	1,743,692	1,938,746	(195,054)	-10.06%	438,899	465,560	(26,661)	-5.73%
<b>Sub-total</b>	<b>19,263,026</b>	<b>19,148,823</b>	<b>114,203</b>	<b>0.60%</b>	<b>4,714,468</b>	<b>4,656,799</b>	<b>57,670</b>	<b>1.24%</b>
<b>Total-Civilian</b>	<b>110,326,885</b>	<b>110,310,227</b>	<b>16,659</b>	<b>0.02%</b>	<b>26,741,172</b>	<b>26,216,042</b>	<b>525,130</b>	<b>2.00%</b>
USN	20,344,802	22,592,308	(2,247,505)	-9.95%	4,966,520	5,221,857	(255,336)	-4.89%
<b>Grand Total</b>	<b>130,671,688</b>	<b>132,902,534</b>	<b>(2,230,847)</b>	<b>-1.68%</b>	<b>31,707,692</b>	<b>31,437,899</b>	<b>269,793</b>	<b>0.86%</b>

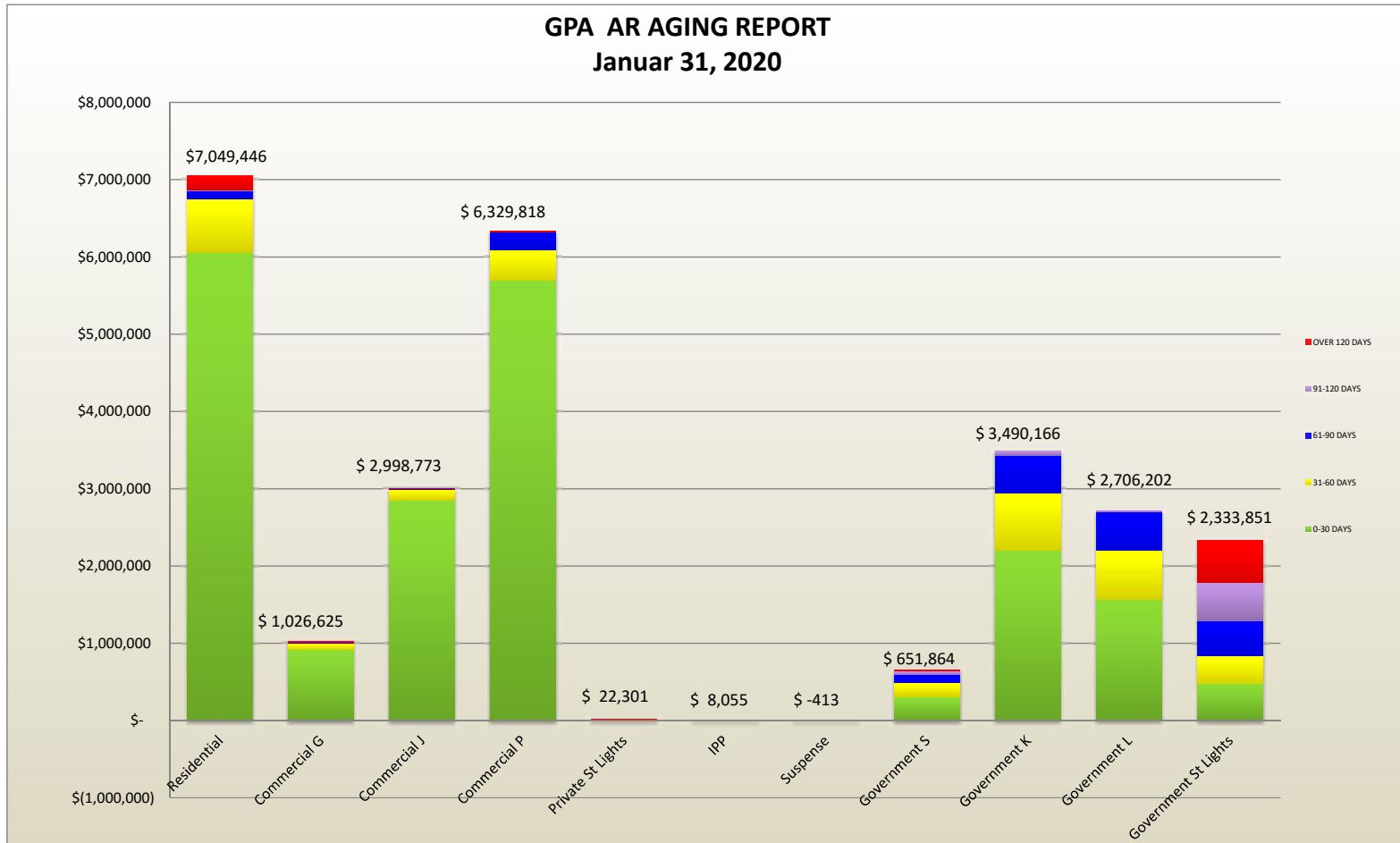


**GPA - T and D Losses ( MWH) Without Renewables and Aggreko  
For the Last 5 Years thru 01.31.20 -Moving 12 Months**













**GUAM POWER AUTHORITY**

ATURIDĀT ILEKTRESEDĀT GUAHAN  
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

## Issues for Decision

### Resolution No. 2020-07

#### Relative to Authorizing Expenditure for Generation, Substation, Water System Diesel Facilities and Bulk Storage Tank Farm Typhoon Mangkhut Permanent Repairs

##### What is the project's objective and is it necessary and urgent?

The project's objective is to repair the damage on various GPA facilities caused by Typhoon Mangkhut. The work includes repair of security fencing, building parapet, wall panels, roof, doors windows and replacement of perimeter lightings, exhaust fans and water system generators. The proposed restoration project is needed to assure safe and efficient operation of the facilities. Upon completion of the project, FEMA will reimburse GPA about 63.45% of the total expended cost.

##### Where is at?

###### Various locations:

- Generation – Cabras 1&2, Central Maintenance Shop, Dededo & Macheche CT
- Substations – Agana, Apra, Barrigada, Harmon, Marbo, Pagat, Pulantat, Piti, Radio Barrigada, Tenjo and Umatac
- Water System Diesel – Agafa Gumas, Ypaopao Estates, Mangilao, Umatac, Dededo & Yigo
- Bulk Storage Tank Farm - Piti

##### How much will it Cost?

The anticipated cost is \$1,166,029.12 for the IAN Corporation contract.

##### What is its funding Source?

Self-Insurance Funds (about 63.45% of the expended cost is reimbursable from FEMA).

##### When will it be completed?

###### The anticipated schedule is as follows:

Planned Start:	April, 2020
Planned Finish:	September, 2020
Duration:	6 months



**CONSOLIDATED COMMISSION ON UTILITIES**  
Guam Power Authority | Guam Waterworks Authority  
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

**RESOLUTION NO. 2020-07**

**RELATIVE TO AUTHORIZING EXPENDITURE FOR GENERATION, SUBSTATION,  
WATER SYSTEM DIESEL FACILITIES AND BULK STORAGE TANK FARM FOR  
TYPHOON MANGKHUT PERMANENT REPAIRS**

**WHEREAS**, various facilities of Guam Power Authority (GPA) sustained damage after Typhoon Mangkhut passed the island; and

**WHEREAS**, the affected facilities are certain Generation, Substation, Water System Diesel units and the Bulk Storage Tank Farm; and

**WHEREAS**, restoration of listed facilities is required to assure safe and efficient operations; and

**WHEREAS**, the project includes repair of security fencing, building parapet, wall panels, roof, doors, windows and replacement of perimeter lightings, exhaust fans and water system diesel generators; and

**WHEREAS**, the Procurement Officer has provided adequate public announcement for the Generation, Substation, Water System Diesel Facilities and Bulk Storage Tank Farm Typhoon Mangkhut Permanent Repairs through Bid Invitation No. GPA-059-19-REBID; and

**WHEREAS**, there were two (2) qualified bidders who submitted bids for GPA's consideration (Attached Exhibit "A"); and

**WHEREAS**, GPA's Evaluation Committee has determined IAN Corporation to be the lowest responsive bidder at a cost of \$1,166,029.12; and

**WHEREAS**, the proposed repair project will be completed within one hundred eighty (180) calendar days upon issuance of Notice to Proceed; and

**WHEREAS**, about 60% of the expended cost is reimbursable from Federal Emergency Management Agency (FEMA); and

**WHEREAS**, the award of the contract to IAN Corporation has been made pursuant to a written finding by the Procurement Officer that the IAN Corporation offer meets the requirements of GPA and has been determined to be fair and reasonable.

**NOW, THEREFORE, BE IT RESOLVED**, by the Consolidated Commission on Utilities, as follows:

1. GPA's request to award the contract to IAN Corporation for the Generation, Substation, Water System Diesel Facilities and Bulk Storage Tank Farm Typhoon Mangkhut Permanent Repairs is reasonable and prudent.
2. The GPA General Manager is hereby authorized obligating authority of \$1,166,029.12 to issue a contract for the Generation, Substation, Water System Diesel Facilities and Bulk Storage Tank Farm Typhoon Mangkhut Permanent Repairs utilizing a combination of self-insurance funds and FEMA funding.

**RESOLVED**, that the Chairman certifies and the Board Secretary attests the adoption of this Resolution.

**DULY AND REGULARLY ADOPTED AND APPROVED THIS 24th DAY OF MARCH, 2020.**

Certified by:

Attested by:

\_\_\_\_\_  
JOSEPH T. DUENAS  
Chairperson  
Consolidated Commission on Utilities

\_\_\_\_\_  
MICHAEL T. LIMTIACO  
Secretary  
Consolidated Commission on Utilities

**I, Michael T. Limtiaco**, Secretary for the Consolidated Commission on Utilities (CCU), as evidenced by my signature above do certify as follows:

The foregoing is a full, true, and accurate copy of the resolution duly adopted at a regular meeting of the members of Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

Ayes: \_\_\_\_\_

Nays: \_\_\_\_\_

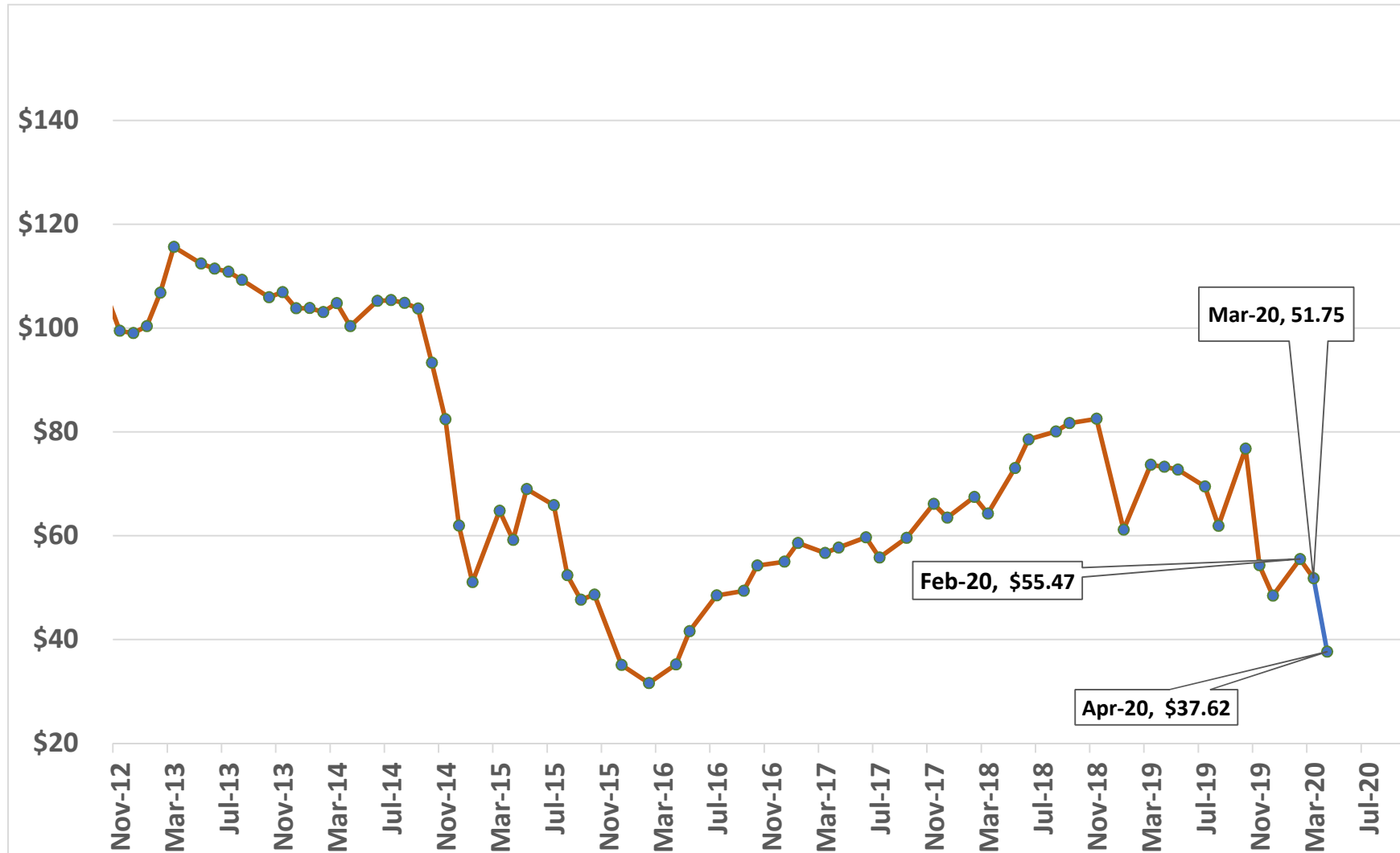
Absent: \_\_\_\_\_

Abstain: \_\_\_\_\_





# LEAC Update – GPA Fuel Purchases (Per Barrel)



— Purchased

— Ordered



# LEAC Update – Morgan Stanley Asian Morning Call

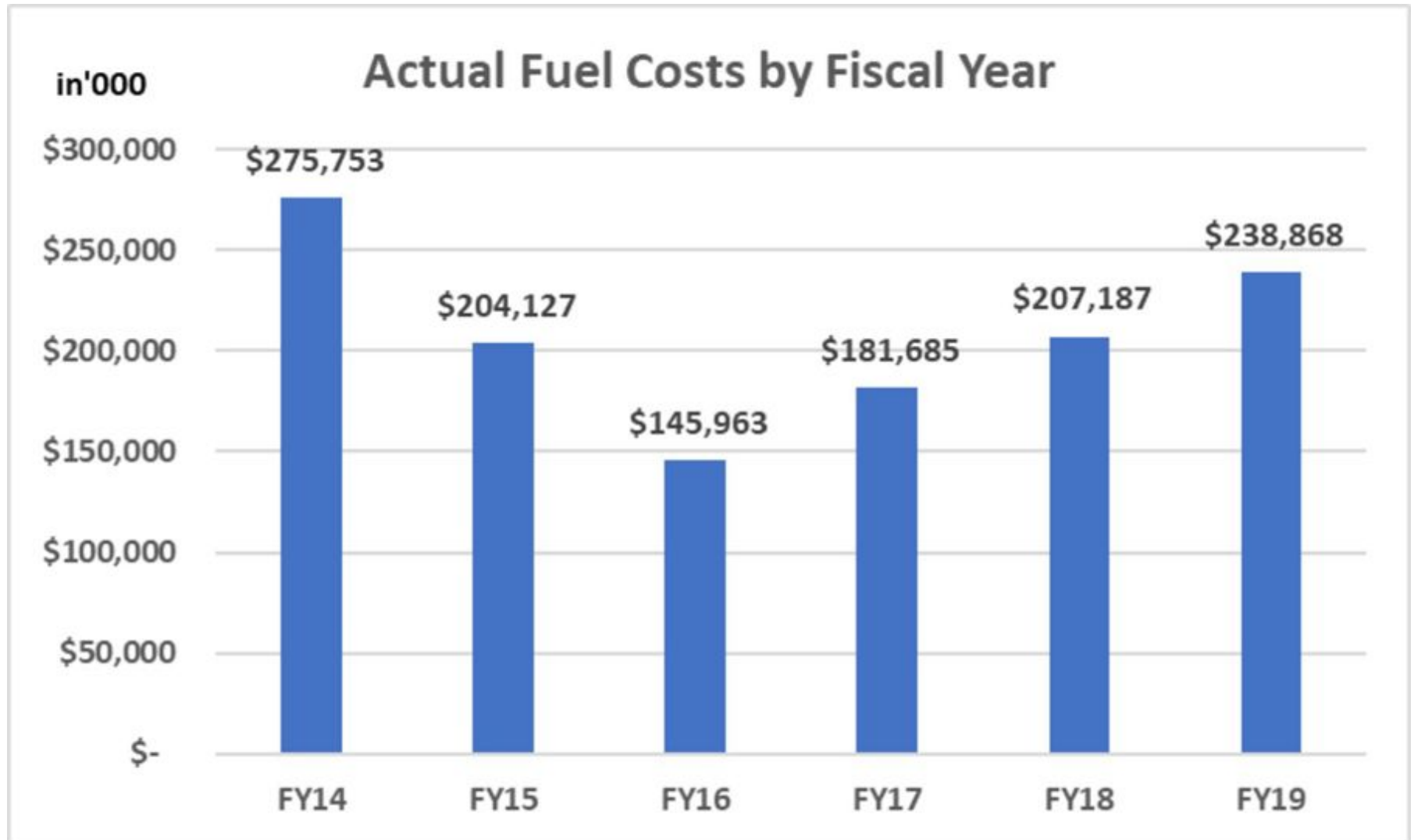
## Sing HSFO 180 CST

Date	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21
3/12/2020	\$ 182.12	\$ 183.62	\$ 190.87	\$ 198.12	\$ 208.79	\$ 208.79	\$ 208.79	\$ 223.04	\$ 223.04	\$ 223.04	\$ 235.29
3/13/2020	\$ 184.24	\$ 185.74	\$ 190.49	\$ 196.49	\$ 207.74	\$ 207.74	\$ 207.74	\$ 225.65	\$ 225.65	\$ 225.65	\$ 240.32
3/16/2020	\$ 184.48	\$ 185.98	\$ 188.48	\$ 192.48	\$ 201.48	\$ 201.48	\$ 201.48	\$ 215.15	\$ 215.15	\$ 215.15	\$ 227.98
3/17/2020	\$ 186.65	\$ 188.15	\$ 189.65	\$ 192.65	\$ 197.81	\$ 197.81	\$ 197.81	\$ 210.81	\$ 210.81	\$ 210.81	\$ 224.65
3/18/2020	\$ 173.40	\$ 174.90	\$ 176.40	\$ 179.40	\$ 184.57	\$ 184.57	\$ 184.57	\$ 197.57	\$ 197.57	\$ 197.57	\$ 211.40
Five-day average	\$ 182.18	\$ 183.68	\$ 187.18	\$ 191.83	\$ 200.08	\$ 200.08	\$ 200.08	\$ 214.44	\$ 214.44	\$ 214.44	\$ 227.93

## Gassoil 10ppm

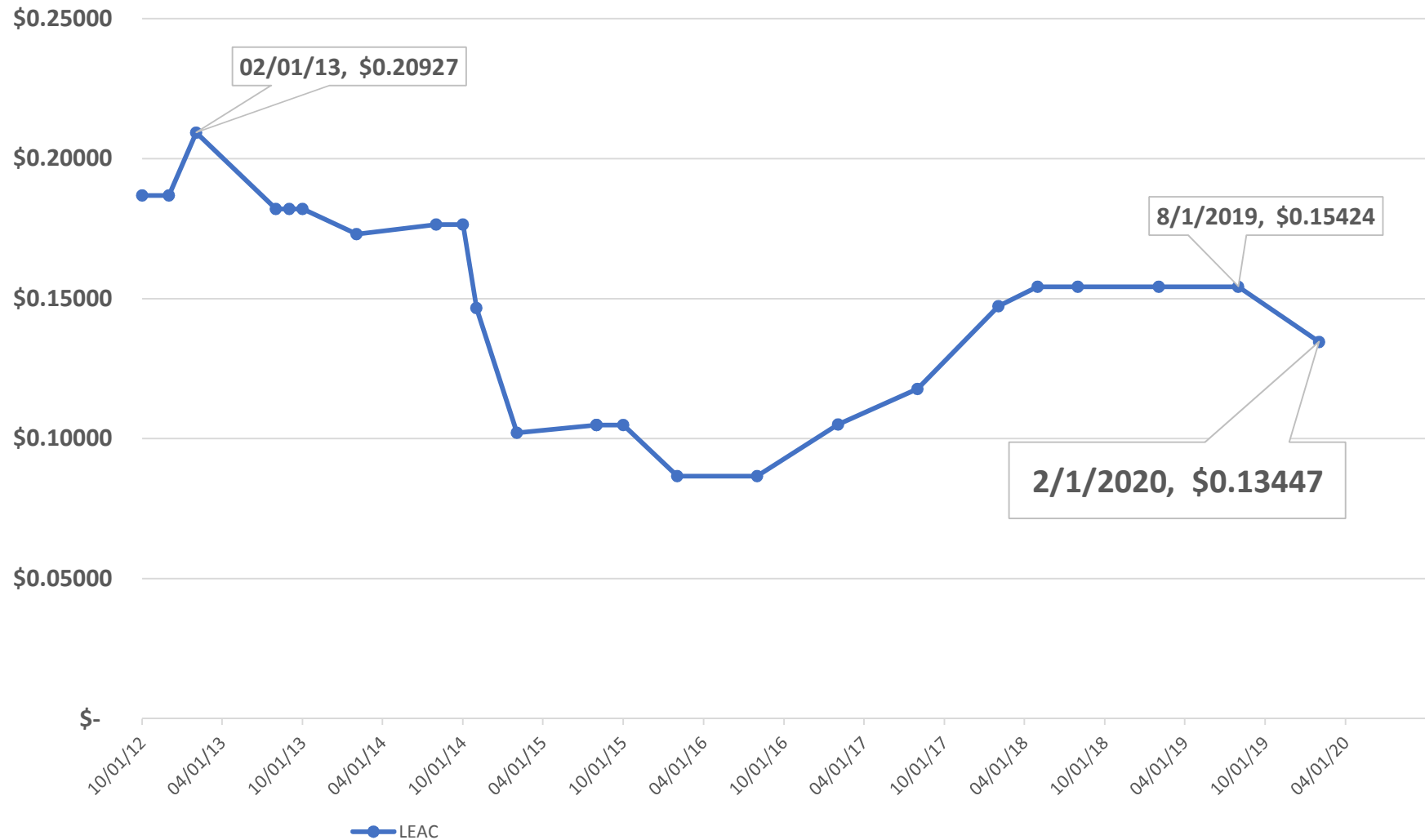
3/12/2020	\$ 46.41	\$ 46.36	\$ 46.66	\$ 47.06	\$ 48.18	\$ 48.18	\$ 48.18	\$ 49.70	\$ 49.70	\$ 49.70	\$ 51.31
3/13/2020	\$ 44.55	\$ 44.45	\$ 45.00	\$ 45.65	\$ 47.25	\$ 47.25	\$ 47.25	\$ 49.16	\$ 49.16	\$ 49.16	\$ 50.90
3/16/2020	\$ 42.80	\$ 42.70	\$ 43.05	\$ 43.65	\$ 45.33	\$ 45.33	\$ 45.33	\$ 47.45	\$ 47.45	\$ 47.45	\$ 49.31
3/17/2020	\$ 41.21	\$ 41.11	\$ 41.46	\$ 42.26	\$ 44.11	\$ 44.11	\$ 44.11	\$ 46.23	\$ 46.23	\$ 46.23	\$ 48.05
3/18/2020	\$ 40.27	\$ 40.22	\$ 40.55	\$ 41.30	\$ 43.18	\$ 43.18	\$ 43.18	\$ 45.26	\$ 45.26	\$ 45.26	\$ 46.93
Five-day average	\$ 43.05	\$ 42.97	\$ 43.34	\$ 43.98	\$ 45.61	\$ 45.61	\$ 45.61	\$ 47.56	\$ 47.56	\$ 47.56	\$ 49.30

# LEAC Update – Fuel Cost by Fiscal Year

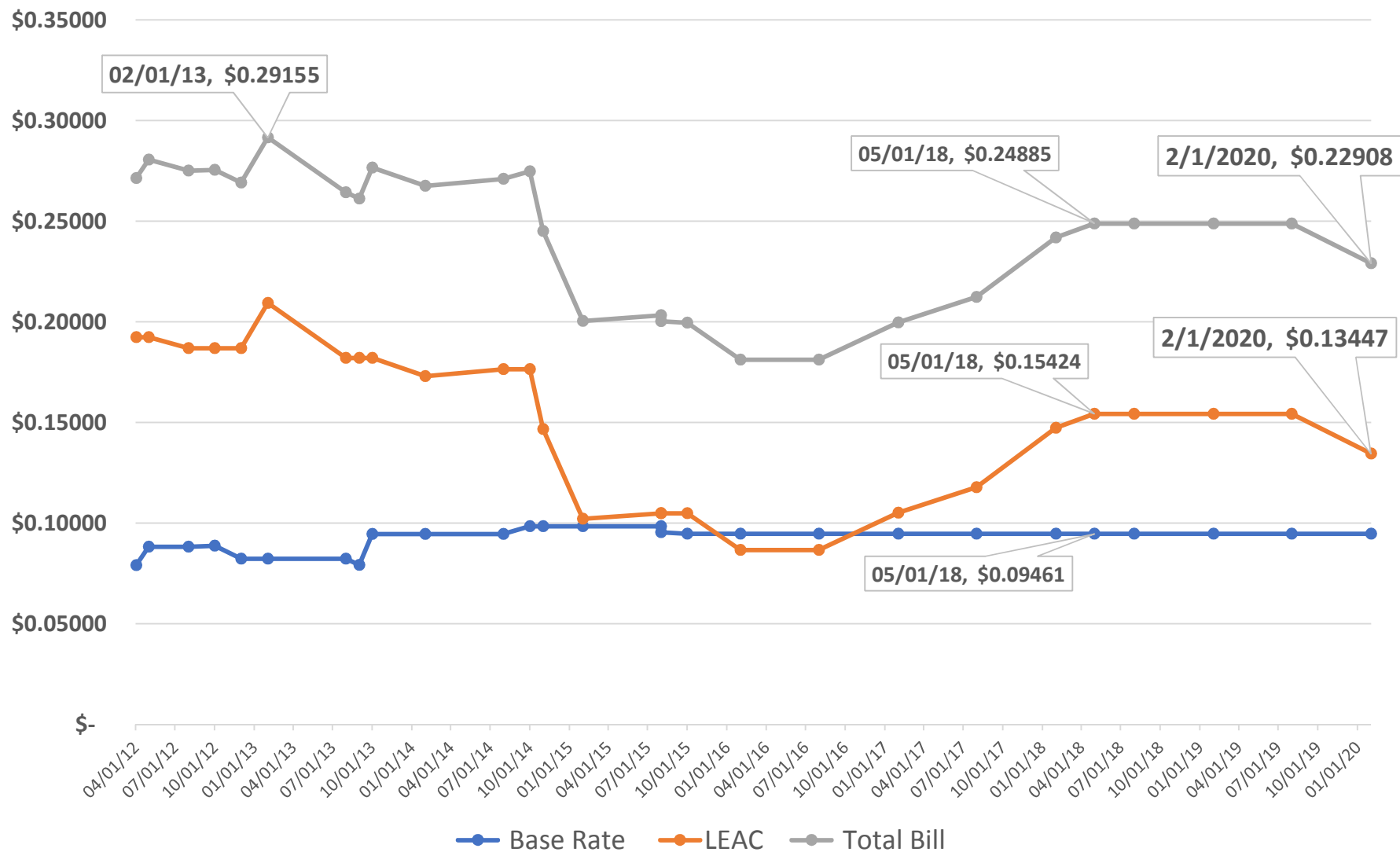




# Historical Residential LEAC Rate



# Historical Residential Rate



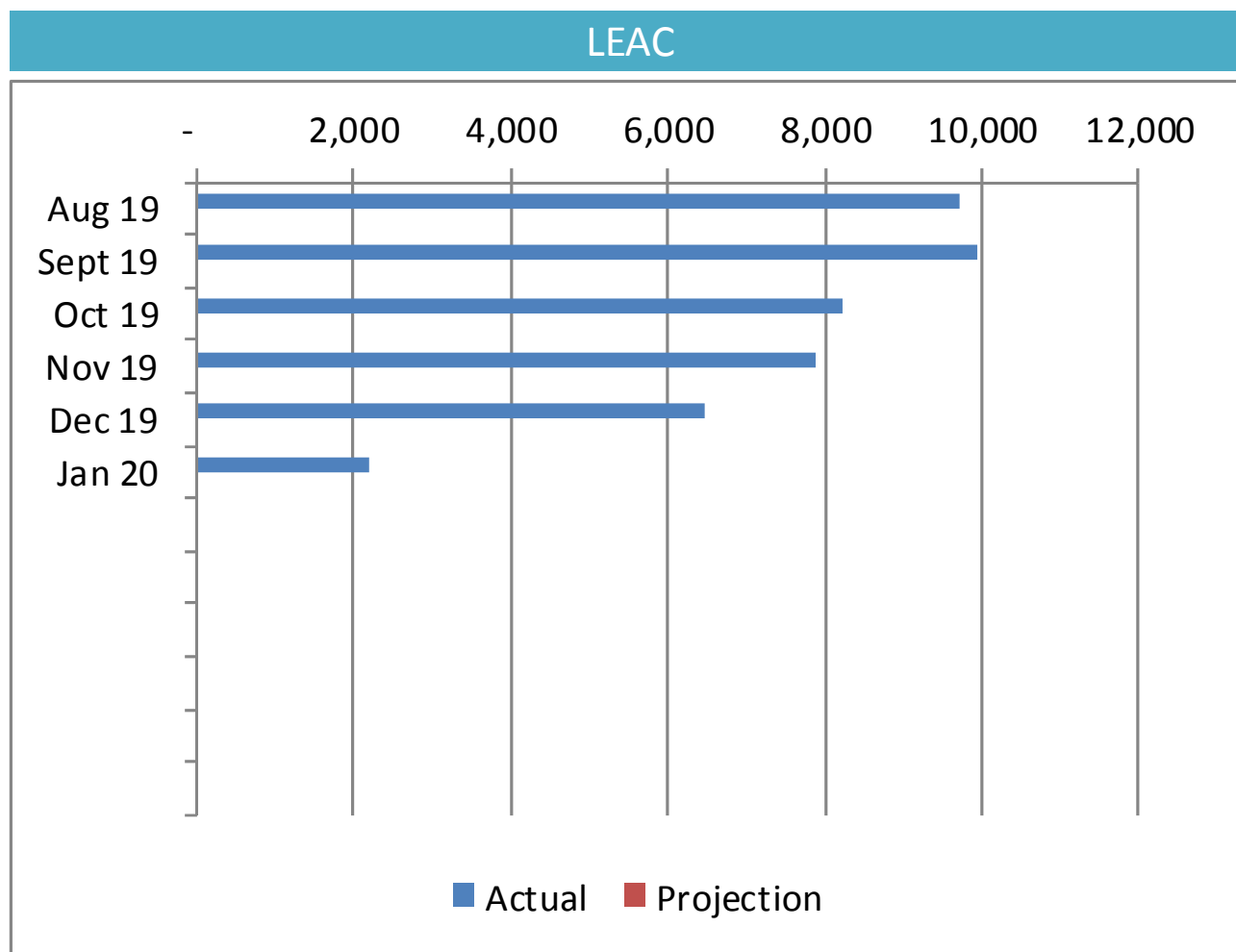
# Historical LEAC Over (Under ) Recovery

LEAC Period		Approved LEAC		Actual Over	
From	To	Rate		(Under) Recovery	
4/1/2012	7/31/2012	\$ 0.192310	\$	(3,040,418)	
8/1/2012	1/31/2013	\$ 0.186834	\$	(2,494,052)	
2/1/2013	7/31/2013	\$ 0.209271	\$	1,345,259	
8/1/2013	10/31/2013	\$ 0.182054	\$	1,300,093	
2/1/2014	7/31/2014	\$ 0.172986	\$	(1,137,034)	
8/1/2014	10/31/2014	\$ 0.176441	\$	(4,646,872)	
11/1/2014	1/31/2015	\$ 0.146666	\$	661,428	
2/1/2015	7/31/2015	\$ 0.102054	\$	1,757,878	
8/1/2015	1/31/2016	\$ 0.104871	\$	(2,467,151)	
2/1/2016	7/31/2016	\$ 0.086613	\$	(2,668,603)	
8/1/2016	1/31/2017	\$ 0.086613	\$	(9,915,360)	
			\$	(5,315,360) (a)	
2/1/2017	7/31/2017	\$ 0.105051	\$	(14,050,504)	
8/1/2017	01/31/1018	\$ 0.117718	\$	(16,775,982)	
2/1/2018	4/30/2018	\$ 0.147266	\$	(13,005,689)	
5/1/2018	7/31/2018	\$ 0.154242	\$	(8,422,674)	
8/1/2018	1/31/2019	\$ 0.154242	\$	(13,336,698)	
2/1/2019	7/31/2019	\$ 0.154242	\$	(10,225,349)	
8/1/2019	1/31/2020	\$ 0.154242	\$	(2,193,618)	

a) Under-recovery Balance after applying the \$4.6 million from the Cabras 3&4 Extra Expense claim



# LEAC Under Recovery Balances



LEAC	
(Unearned)/ Under Recovered	'000 Actual
Aug 19	9,722
Sept 19	9,944
Oct 19	8,210
Nov 19	7,887
Dec 19	6,473
Jan 20	2,194

# LEAC - Proposed

	Full Recovery Current Approved LEAC Rate Eff 2/01/2020	Full Recovery MS Pricing 03.12.20 to 03.18.20 Eff 04/01/20
2 Average Price per Bbl-RFO	\$ 59.14	\$ 53.42
2 Average Price per Bbl-Diesel	\$ 85.56	\$ 65.65
4 Number 6 (HSFO/LSFO)	\$ 57,722	\$ 35,338
5 Number 2 (Diesel)	33,131	13,956
6 Renewable (Solar)	5,575	3,960
7 TOTAL COST	\$ 96,428	\$ 53,255
8 Handling Costs	5,900	3,960
9 Total Current Fuel Expense	\$ 102,328	\$ 57,215
10 Civilian Allocation	81.62%	81.63%
11 LEAC Current Fuel Expense	\$ 83,519	\$ 46,698
12 Estimated DSM for this period	\$ -	\$ -
13 Deferred Fuel Expense at the beginning of the period	2,748	1,103
14 Total LEAC Expense	\$ 86,267	\$ 47,801
15 Less: Trans. Level Costs	(5,093)	(2,809)
16 Distribution Level Costs	\$ 81,175	\$ 44,992
17 Under recovery at the end of the period	\$ -	\$ -
18 Adjusted Distribution Level Costs	\$ 81,175	\$ 44,992
19 Distribution Level Sales (mWh)	603,646	408,873
20 LEAC Factor Distribution	<b>0.134474</b>	<b>0.110039</b>
21 Current LEAC Factor Distribution	0.154242	0.134474
22 Increase/(Decrease)	(0.01977)	(0.02443)
23 Monthly Increase/(Decrease) - 1000 kWh	\$ (19.77)	\$ (24.43)
24 % Increase/(Decrease) in LEAC	-12.82%	-18.17%
25 % Increase/(Decrease) in Total Bill	-7.94%	-10.67%
26 Discount (3%) - Primary 13.8 KV	\$ 0.130425	\$ 0.106727
27 Discount (4%) - 34.5 KV	\$ 0.130050	\$ 0.106420
28 Discount (5%) - 115 KV	\$ 0.128449	\$ 0.105110



# LEAC – Billing Illustration

	Rate Schedule R			
	Current LEAC Effective 2/1/2020		Proposed LEAC Effective 4/1/2020	
	Rate	Amount	Rate	Amount
KWH		1,000		1,000
Monthly Charge	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
Non-Fuel Energy Charge				
First 500 KWH	\$ 0.06955	\$ 34.78	\$ 0.06955	\$ 34.78
Over 500 KWH	\$ 0.08687	\$ 43.44	\$ 0.08687	\$ 43.44
Emergency Water-well charge	\$ 0.00279	\$ 1.40	\$ 0.00279	\$ 1.40
Total Electric Charge before Fuel Recovery Charges		\$ 94.61		\$ 94.61
Fuel Recovery Charge	<b>\$ 0.134474</b>	<u>134.47</u>	<b>\$ 0.110039</b>	<u>110.04</u>
Total Electric Charge		<u><b>\$229.08</b></u>		<u><b>\$204.64</b></u>
Increase (Decrease) in Total Bill				<u><b>(\$24.44)</b></u>
% Increase (Decrease) in Total Bill				<b>-10.7%</b>
% Increase (Decrease) in LEAC				<b>-18.2%</b>

## Exhibit A

### LEAC - Proposed

	Full Recovery Current Approved LEAC Rate Eff 2/01/2020	Full Recovery MS Pricing 03.12.20 to 03.18.20 Eff 04/01/20
2 Average Price per Bbl-RFO	\$ 59.14	\$ 53.42
2 Average Price per Bbl-Diesel	\$ 85.56	\$ 65.65
4 Number 6 (HSFO/LSFO)	\$ 57,722	\$ 35,338
5 Number 2 (Diesel)	33,131	13,956
6 Renewable (Solar)	5,575	3,960
7 TOTAL COST	\$ 96,428	\$ 53,255
8 Handling Costs	5,900	3,960
9 Total Current Fuel Expense	\$ 102,328	\$ 57,215
10 Civilian Allocation	81.62%	81.63%
11 LEAC Current Fuel Expense	\$ 83,519	\$ 46,698
12 Estimated DSM for this period	\$ -	\$ -
13 Deferred Fuel Expense at the beginning of the period	2,748	1,103
14 Total LEAC Expense	\$ 86,267	\$ 47,801
15 Less: Trans. Level Costs	(5,093)	(2,809)
16 Distribution Level Costs	\$ 81,175	\$ 44,992
17 Under recovery at the end of the period	\$ -	\$ -
18 Adjusted Distribution Level Costs	\$ 81,175	\$ 44,992
19 Distribution Level Sales (mWh)	603,646	408,873
20 LEAC Factor Distribution	<b>0.134474</b>	<b>0.110039</b>
21 Current LEAC Factor Distribution	0.154242	0.134474
22 Increase/(Decrease)	(0.01977)	(0.02443)
23 Monthly Increase/(Decrease) - 1000 kWh	\$ (19.77)	\$ (24.43)
24 % Increase/(Decrease) in LEAC	-12.82%	-18.17%
25 % Increase/(Decrease) in Total Bill	-7.94%	-10.67%
26 Discount (3%) - Primary 13.8 KV	\$ 0.130425	\$ 0.106727
27 Discount (4%) - 34.5 KV	\$ 0.130050	\$ 0.106420
28 Discount (5%) - 115 KV	\$ 0.128449	\$ 0.105110

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Fuel Recovery Charge	<b>\$ 0.134474</b>	<u>134.47</u>	<b>\$ 0.110039</b>	<u>110.04</u>
Total Electric Charge		<u>\$229.08</u>		<u>\$204.64</u>
Increase (Decrease) in Total Bill				<u>(\$24.44)</u>
% Increase (Decrease) in Total Bill				<b>-10.7%</b>
% Increase (Decrease) in LEAC				<b>-18.2%</b>





**GUAM POWER AUTHORITY**

ATURIDÂT ILEKTRESEDÂT GUAHAN  
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

## **Issues for Decision**

### **Resolution No. 2020-08**

### **Relative to LEAC**

#### **What is the project's objective? Is it necessary and urgent?**

The Guam Public Utilities Commission (GPUC) has established a Tariff under which the Guam Power Authority (GPA) is allowed to recover its fuel costs and fuel related costs under a factor which is reset and trued up every (6) six months through the Levelized Energy Adjustment Clause (LEAC). The LEAC Clause allows for interim adjustment if over recovery balance is projected to exceed \$2 million during the six-month levelized period.

The LEAC period covered from February 1, 2020 through July 31, 2020, GPA requested to adjust the LEAC rate of \$0.134474/kWh that was approved for meters read on or after February 1, 2020 in anticipation of projected declining prices of black oil in the fuel market and to recover the under-recovery at the end of the period. The average market price of residual fuel oil and diesel to be used in the initial filing for the current period was approved at \$59.14/bbl. for the (6) six-month period ending July 31, 2020, the current projection from April 1, 2020 to July 31, 2020 is \$53.42/bbl.

The world event of the COVID-19 pandemic and the relationship between OPEC and Russia have caused a drop-in fuel price.

Under this proposal, GPA will fully recover the current under- recovery of about \$1 million based on the Morgan Stanley Asia Morning Call forward pricing for the period of April 1, 2020 to July 31, 2020.

GPA is now requesting the Consolidated Commission on Utilities to authorize the Authority to file such petition with the Guam Public Utilities Commission.

#### **How much will it cost?**

The projected LEAC rate for Secondary voltage customers is \$0.110039/kWh or a 18.2% decrease from the current LEAC rate.



**CONSOLIDATED COMMISSION ON UTILITIES**

Guam Power Authority | Guam Waterworks Authority  
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

**RESOLUTION NO.: 2020-08**

**AUTHORIZING THE MANAGEMENT OF THE GUAM POWER AUTHORITY TO  
PETITION THE GUAM PUBLIC UTILITIES COMMISSION FOR INTERIM  
ADJUSTMENT IN THE LEVELIZED ENERGY ADJUSTMENT CLAUSE**

**WHEREAS**, the Guam Public Utilities Commission (GPUC) has established a Tariff under which the Guam Power Authority (GPA) is allowed to recover its fuel costs and fuel related costs under a factor which is reset and trued up every (6) six months through the Levelized Energy Adjustment Clause (LEAC); and

**WHEREAS**, LEAC Clause allows for interim adjustment if over recovery balance is projected to exceed \$2 million during the six-month levelized period; and

**WHEREAS**, for the LEAC period covered from February 1, 2020 through July 31, 2020, GPA requested to adjust the LEAC rate of \$0.134474/kWh that was approved for meters read on or after February 1, 2020 in anticipation of projected declining prices of black oil in the fuel market and to recover the under-recovery at the end of the period; and

**WHEREAS**, the average market price of residual fuel oil and diesel to be used in the initial filing for the current period was approved at \$59.14/bbl. for the (6) six-month period ending July 31, 2020, the current projection from April 1, 2020 to July 31, 2020 is \$53.42/bbl.; and

**WHEREAS**, the world event of the COVID-19 pandemic and the relationship between OPEC and Russia have caused a drop-in fuel price; and

**WHEREAS**, under this proposal, GPA will fully recover the current under- recovery of about \$1 million based on the Morgan Stanley Asia Morning Call forward pricing for the period

1 of April 1, 2020 to July 31, 2020, the projected LEAC rate for Secondary voltage customers is  
2 \$0.110039/kWh or a 18.2% decrease from the current LEAC rate; and  
3

4 **WHEREAS**, GPA is now requesting the Consolidated Commission on Utilities to  
5 authorize the Authority to file such petition with the Guam Public Utilities Commission.  
6

7 **NOW, THEREFORE BE IT RESOLVED**, by the Consolidated Commission on Utilities  
8 as follows:  
9

10 1. The General Manager of the Guam Power Authority is authorized to petition the Guam  
11 Public Utilities Commission for the proposed secondary voltage LEAC rate of \$0.110039/kWh  
12 effective for the period from April 1, 2020 to July 31, 2020. (LEAC factors for alternative voltage  
13 levels are as reflected in the attached Exhibit A illustration)  
14

15 **RESOLVED**, that the Chairman certifies and the Board Secretary attests to the adoption  
16 of this Resolution.  
17

18 **DULY AND REGULARLY ADOPTED AND APPROVED THIS 24<sup>th</sup> DAY OF**  
19 **MARCH 2020**  
20

21 Certified by:

Attested by:

22  
23  
24 \_\_\_\_\_  
25 **JOSEPH T. DUENAS**

\_\_\_\_\_

26 Chairperson

Secretary

27 Consolidated Commission on Utilities

Consolidated Commission on Utilities

1  
2  
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13

I, **Michael T. Lintiac**, Board Secretary of the Consolidated Commission on Utilities (CCU), as evidenced by my signature above, do hereby certify as follows:

The foregoing is a full, true and correct copy of the resolution duly adopted at a regular meeting by the members of the Guam CCU, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

Ayes: \_\_\_\_\_  
Nays: \_\_\_\_\_  
Abstentions: \_\_\_\_\_  
Absent: \_\_\_\_\_



# Management Report

## GPWA CCU Board Meeting, March 24, 2020

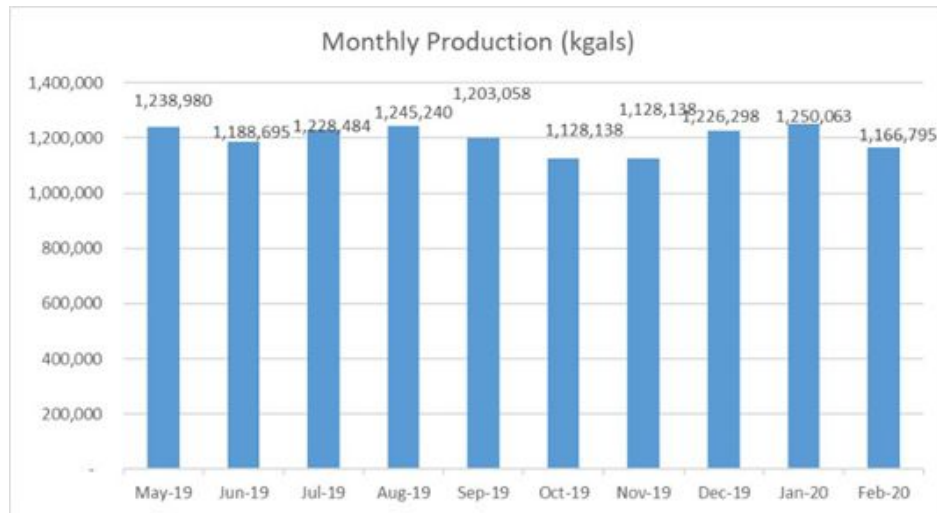


## Operations Update

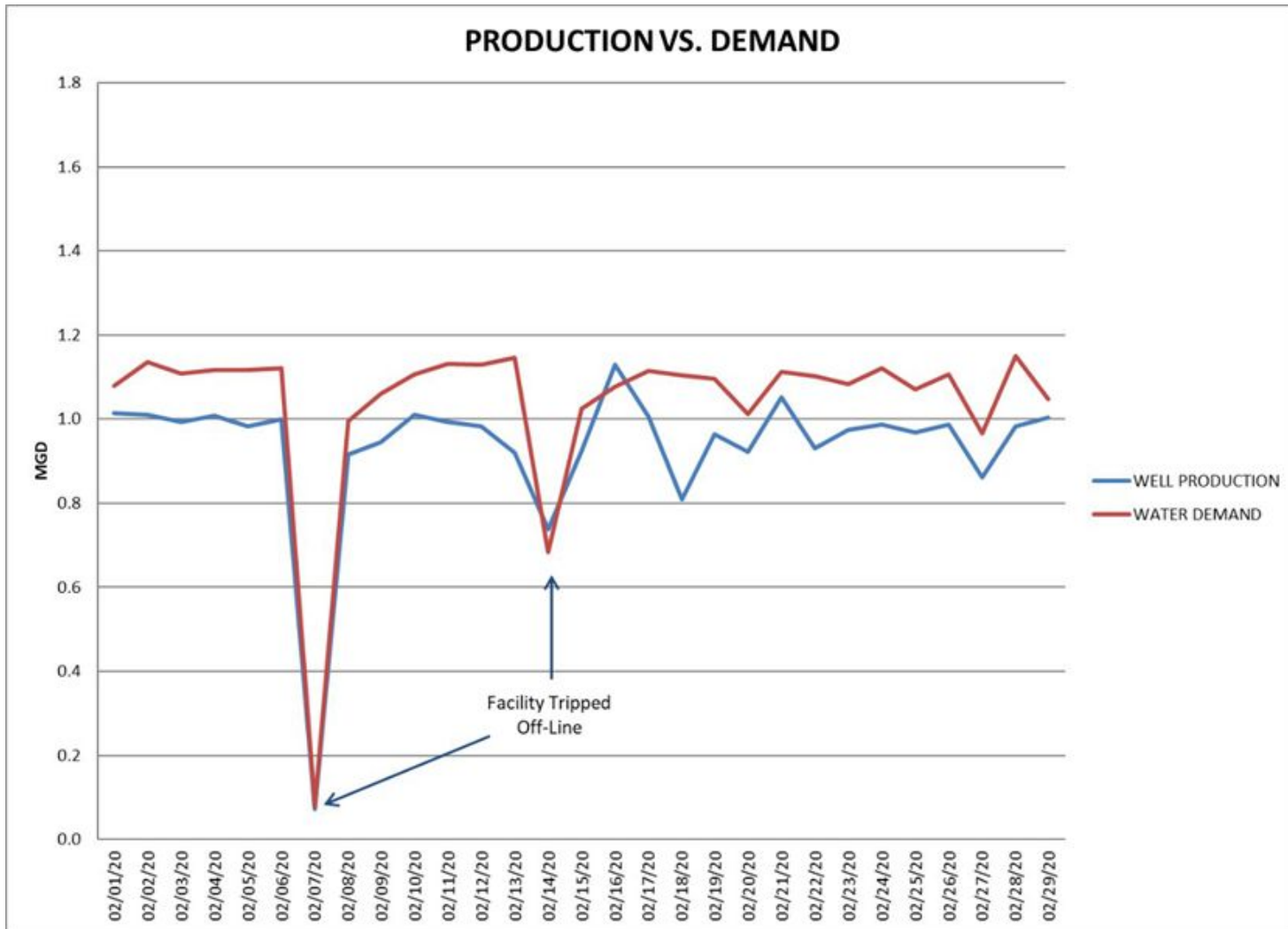
Production (February 2020)

Monthly Production Summary - February 2020				
Deep Wells		36.7 MGD		
Active wells =	97	of 120		
Avg days in operation =	29	days		
Total Production =	1,065,091	Kgals		
Springs		0.26 MGD		
Avg days in operation =	29	days		
Total Production =	7,484	Kgals		
Ugum Surface Water Plant		2.3 MGD		
Avg days in operation =	29	days		
Total Production =	67,141	Kgals		
Tumon Maui Well		0.93 MGD		
Avg days in operation =	29	days		
Total Production =	27,079	Kgals		
		1,166,795	Kgals	40.2 MGD

DW Status as of 2/29/2020		
Active	97	
Grounded motor or Pump Failure	6	A26-D03-D08-F06-F18-Y21
Out of commission	8	A02-A07-A28-D05-D13-M14-MJ01-MJ05
Temporarily Secured	2	A23-A25
Standby	7	A10-A29-D20-D24-F10-M12-M17A
TOTAL	120	

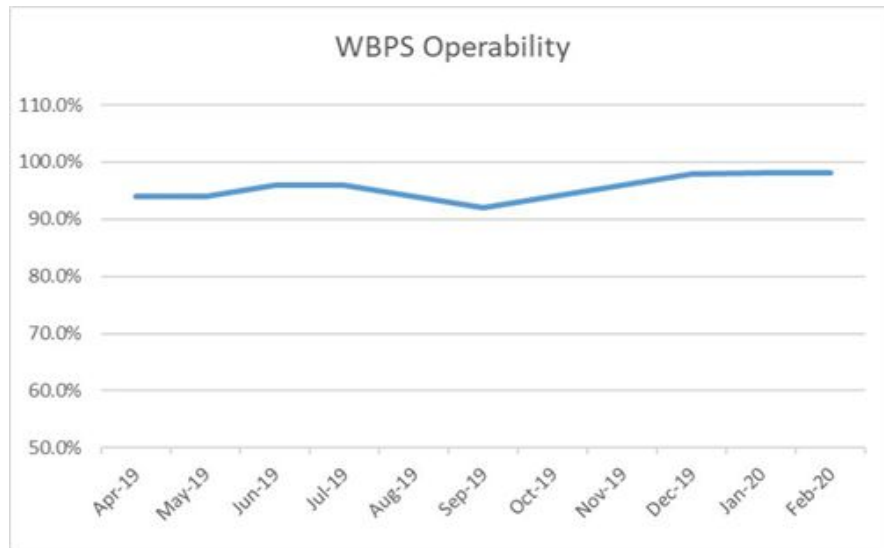


Tumon Maui Well Production (February 2020)



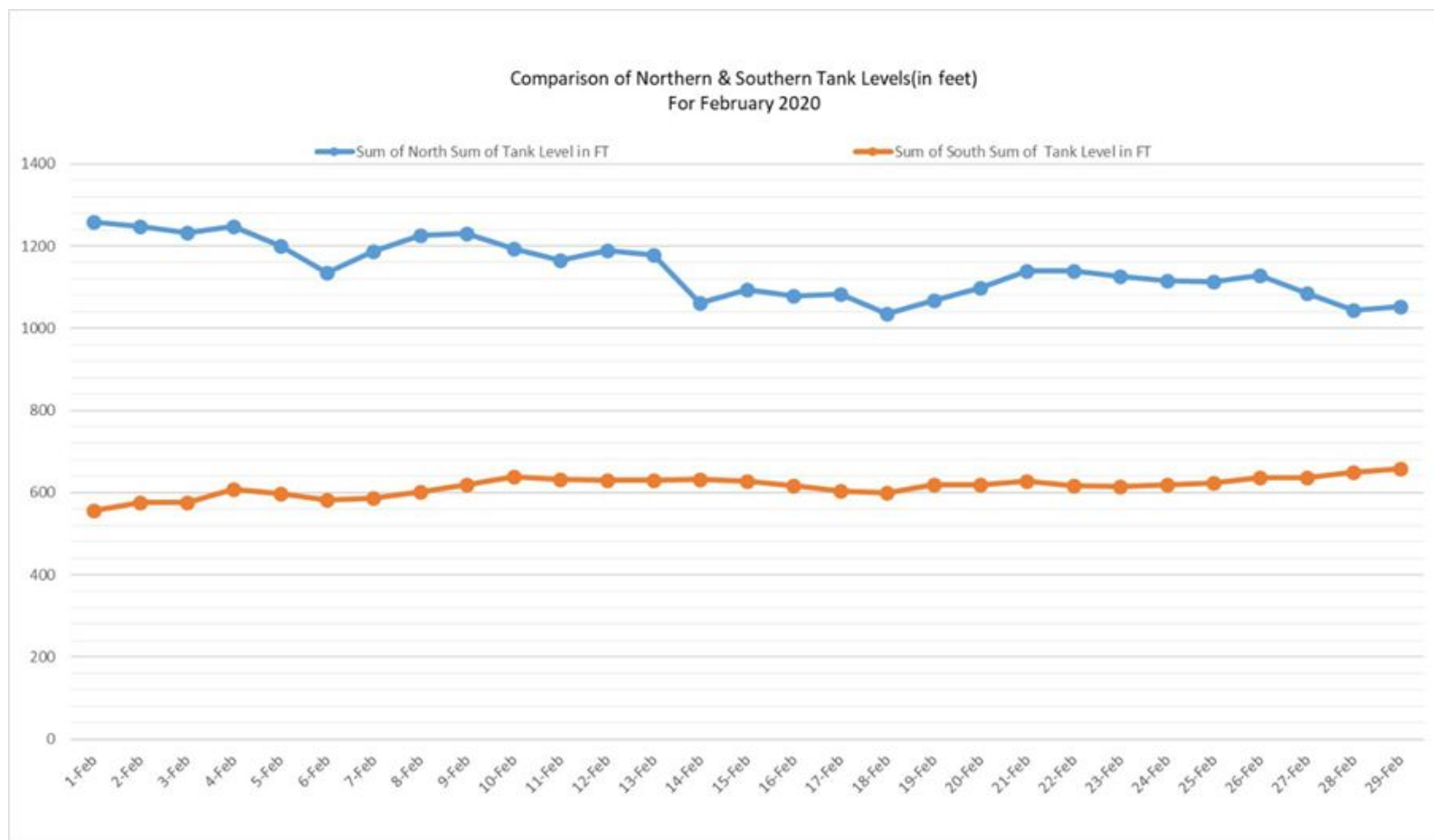
## Distribution (February 2020)

Monthly Distribution Summary - February 2020					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	13	26	25	96.2%
	Central	7	15	15	100.0%
	Southern	7	15	15	100.0%
		27	56	55	98.2%



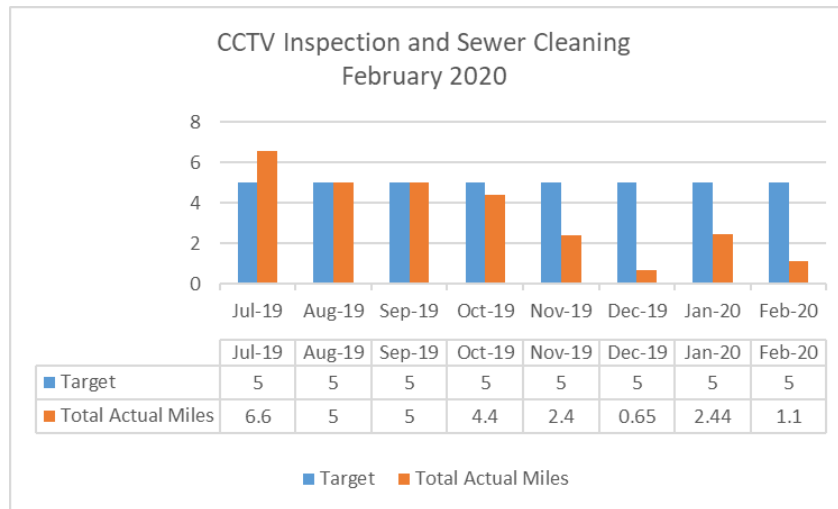


Distribution – Tank Levels (February 2020)



## Wastewater Collections (February 2020)

Monthly Collections Summary - February 2020					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	45	86.5%
	Central	29	63	56	88.9%
	Southern	26	57	47	82.5%
		77	172	148	86.0%







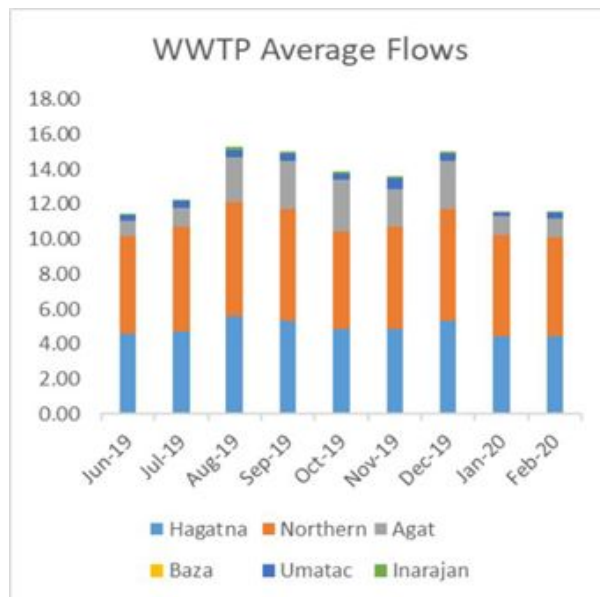


## Wastewater Treatment (February 2020)

**Monthly Wastewater Treatment Summary - February 2020**

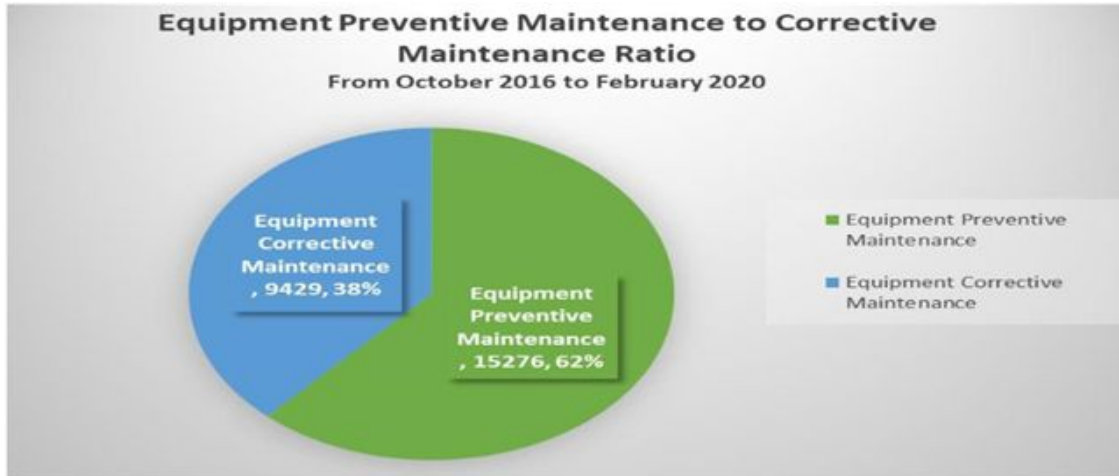
## WW Treatment Plants - Flows

	Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. (\$)
	Hagatna	4.45	266,340	\$ 23,297
	Northern	5.66	774,690	\$ 69,722
	Agat	1.06	63,580	\$ 5,722
	Baza	0		
	Umatac	0.33		
	Inarajan	0.06		
		11.56	1,104,610	\$ 98,741

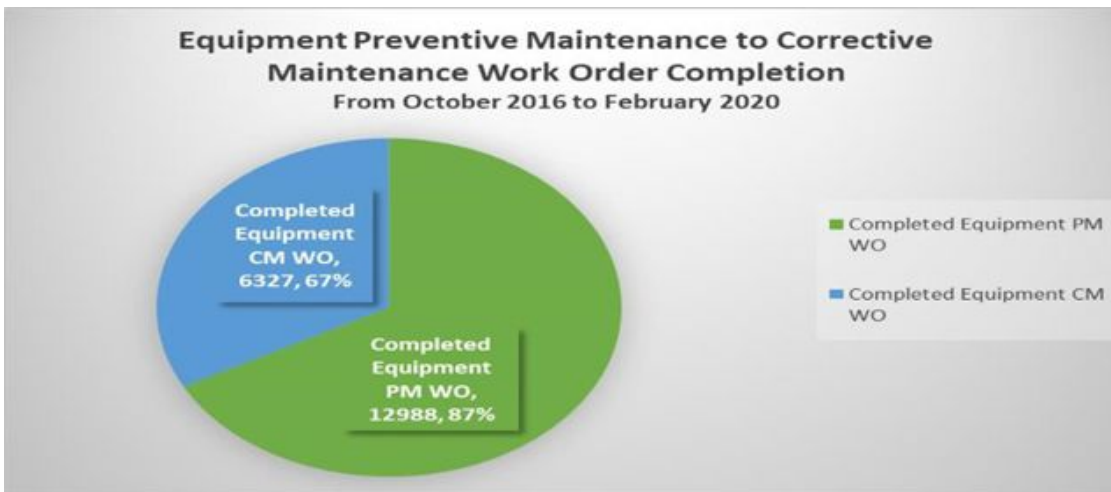


Asset Management (February 2020)

I. Equipment Preventive Maintenance to Corrective Maintenance *Ratio*

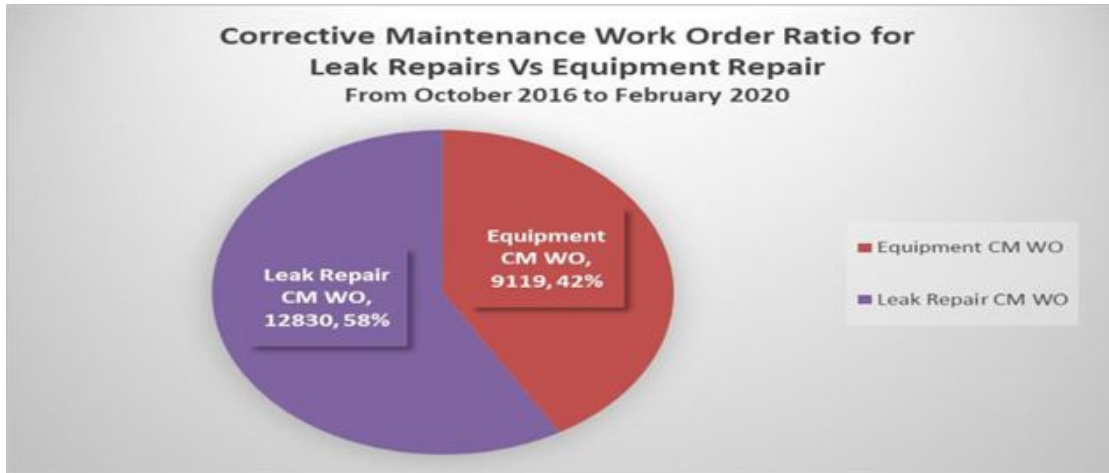


II. Equipment Preventive Maintenance to Corrective Maintenance *Work Order Completion*

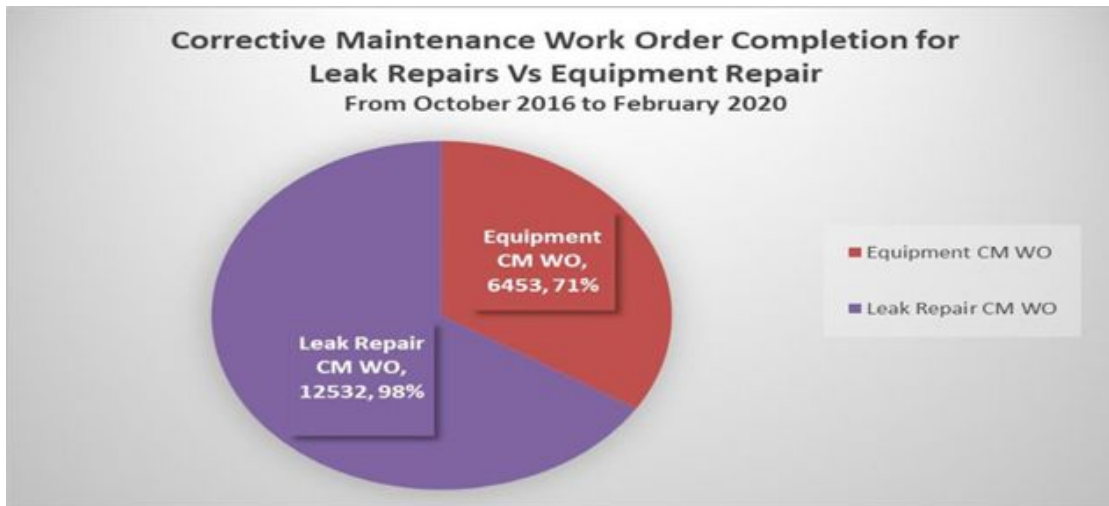


Asset Management (February 2020)

III. Corrective Maintenance Work Order *Ratio* for Leak Repairs vs. Equipment Repair



IV. Corrective Maintenance Work Order *Completion* for Leak Repairs vs. Equipment Repair



## Operational Issues

### Production & Distribution

- Main breaks:
  - Malojloj (Feb 4<sup>th</sup>)
  - Santa Rita (Feb 5<sup>th</sup>)
  - Tiyan – contractor damage (Feb 12<sup>th</sup>)
  - Nimitz Hill (Feb 28<sup>th</sup>)
- Service line leaks:
  - Agat (Feb 1<sup>st</sup>)
  - Mangilao (Feb 1<sup>st</sup>)
  - Finegayan (Feb 11<sup>th</sup>)
  - Dusit Thani (end of month)
- Production Interruptions for
  - Scheduled Generator work at M-17B
  - Multiple well trips this month
- Coordinating project related work
  - Afame valve replacement
  - Tumon Tank (Nissan) tie-in;

### Wastewater Collection & Treatment

- Collection System:
  - Route 1 and Route 4 projects still in progress; traffic impacts are on-going
    - Spill on Route 4 due to contractors work in the area
    - Spill on Route 1 Piti due to contractors work in the area
  - Route 3 and Route 9 interceptor work (OEA) is about 74% (33,000 LF) complete
  - Force Main Break – Umatac (Feb 17<sup>th</sup>)
  - Lateral break – Yigo (Feb 18<sup>th</sup>)
- NDWWTP (OEA)
  - Oxidation Ditches: Foundations in first oxidation ditch – completed
  - Clarifiers: work on yard piping under clarifier continues
  - Headworks: Foundation steelwork continues
  - Digester demolition: sludge removal on-going
  - Water supply issues continue until lines in the area are upgraded



## Meters from January 2017 through February 2020

COMPLETED FIELD ACTIVITY JAN 2017 THRU FEB 2020 (POSTED IN CIS)	2017	2018	2019	Jan-20	Feb-20	TOTAL:	COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Meter Exchange	6487	13353	10850	1079	714	32483	

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	6079	12259	9278	749	908	29273
AVG # OF FIELD STAFF PERFORMING CHANGE OUTS (MON THRU FRI):	19	16	7	7	7	
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	10	6.3	5	5	5	
<b>TOTAL:</b>	<b>29</b>	<b>22</b>	<b>12</b>	<b>12</b>	<b>12</b>	

REMAINING ACTIVE BADGER LP MODELS TO BE REPLACED AS OF Feb 28 2020:

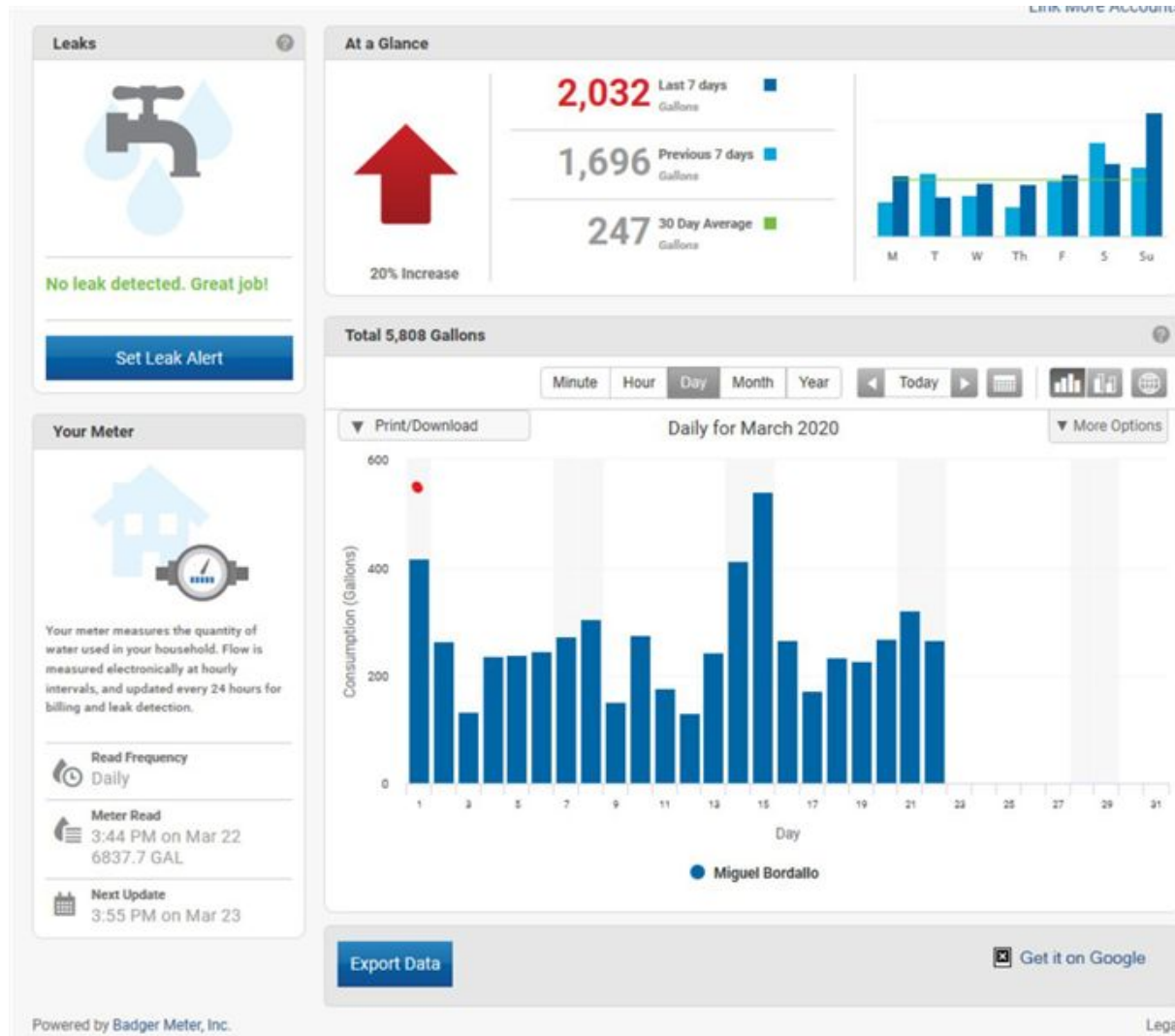
1154

3/4" BADGER METERS IN STOCK AS OF March 09 2020:

Meter Description	New Meters Passed	New Meters Untested	Passed Field Meters	MMP	Meters Available
METER, Badger AMR 5/8" X 3/4" RCDL Model M25 Disc Meter	764	0	246	0	1010
METER, Badger AMR 5/8" x 3/4" **WARRANTY** RCDL Model M25	0	0	0	0	0
METER,Badger 5/8"x3/4" NSF61-G RCDL M25LL Disc Meter Integral	2	0	5	0	7
METER, Badger AMR 5/8" x 3/4" RCDL Model M25 ***RMI***	0	0	0	0	0
METER, Badger E-SERIES 5/8"X3/4" ULTRASONIC	960	0	0	0	960

Pilot-testing of E-series meters and Cellular endpoints

Sample of web-based user portal for this product



## Backbilling through February 2020

## Guam Waterworks Authority

Collections Report<sup>1</sup> on Accounts Backbilled thru February 29, 2020

For fiscal years 2015 thru 2020 (Feb)

Accounts Billed			Collection Status											
			Amounts Collected <sup>1</sup>			Amounts Adjusted			Total Uncollected (Active)			Total Uncollected (Inactive)		
FY Billed	No. of Accounts	Amount	No. of Accounts	Amount	%	No. of Accounts	Amount	%	No. of Accounts	Amount	%	No. of Accounts	Amount	%
FY2015														
FY2016	17	\$ 882	17	\$ 882	100%	0	\$ -		0	\$ -		0	\$ -	
FY2017	537	\$ 397,450	472	322,762	81%	14	20,967	5%	24	29,833	8%	27	23,887	6%
FY2018	1,374	\$ 742,109	1,220	574,467	77%	46	59,691	8%	62	68,495	9%	46	39,456	5%
FY2019	8,324	\$ 3,064,384	7,620	2,454,187	80%	124	106,423	3%	382	397,388	13%	198	106,386	3%
FY2020	1,816	\$ 506,622	944	120,727	24%	8	1,894	0%	833	377,186	74%	31	6,814	0%
<b>Total</b>	<b>12,068</b>	<b>\$ 4,711,447</b>	<b>10,273</b>	<b>\$ 3,473,027</b>	<b>74%</b>	<b>192</b>	<b>\$ 188,975</b>	<b>4%</b>	<b>1,301</b>	<b>\$ 872,902</b>	<b>19%</b>	<b>302</b>	<b>\$ 176,543</b>	<b>4%</b>

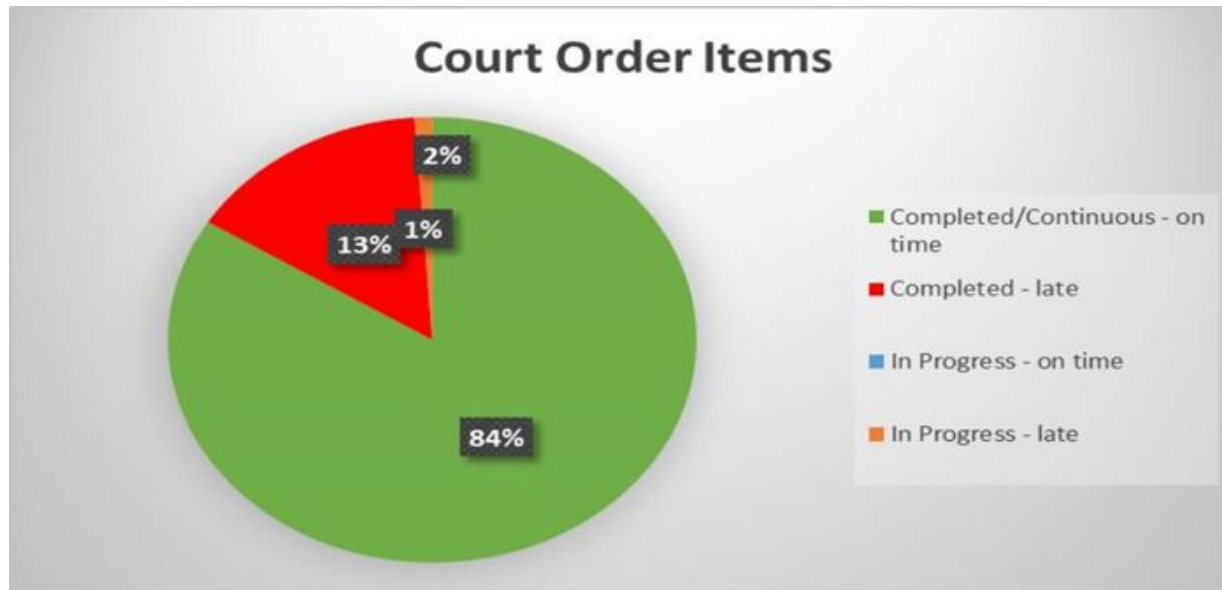
<sup>1</sup> Collections thru March 10, 2020

## One Guam Update

- Tumon Maui Well
  - All inspection reports have been submitted to DOD from 2019
- OEA Project Coordination
  - Observation Wells/NGLA
    - Maria Lewis is setting up meeting with OICC on acceptance of well locations.
  - Finding of No Significant Impact (FONSI) is still required before the DOD real estate can approve an easement for the well locations.
- Property Transfers
  - Transfer of BPM-1: GWA will not be accepting this property until the ownership cloud has been resolved. DOD will move forward to clear the cloud on the title.
  - Transfer of Navy Laterals at Murray Road to GWA: The approval letter is now at NOSSA for approval.
- Other
  - Utility Data Sharing: When approved by GWA, a signing ceremony is being planned for May 1, 2020.
  - Andersen AFB
    - Andersen will pursue the installation of at least 2 mag meters to obtain actual wastewater discharge amounts. Andersen will be responsible to purchasing the meters and the cost of installation. Locations will be provided to GWA.
  - AG-1 Access for GWA/GPA
    - DOD is working with GWA to establish easier access to AG-1. The preferred option is to put a gate in front of the well & extend the sides to imply full fencing into the vegetation.
    - Andersen will provide the gate specification for the construction of the gate to GWA
    - GWA will provide the Andersen's Security a conceptual design for buy-in.
  - Umatac Lot 275 – Easement
    - The MOU (2008) for the mitigation for Kilo Wharf Expansion at Apra Harbor has expired (2019). In 2018, GWA gave an extension to an additional year. The Navy is requesting an extension for an additional 10 years to complete the monitoring to include water samples and monitoring of the trees that were planted. Maria Lewis will work the Navy to determine if the entire 840 acres are required for this phase of the project.
  - Framework for Discussion for additional projects to collaborate
    - Over the next few meeting, GWA and DOD will review the proposed projects to strengthen GWA/DOD utilities for reliability and operability.
    - The original Framework for Discussion (2018) will be updated to include projects that can provide additional capacity to both utilities.

## Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	78	1	14	0	98.9%



## Court Order

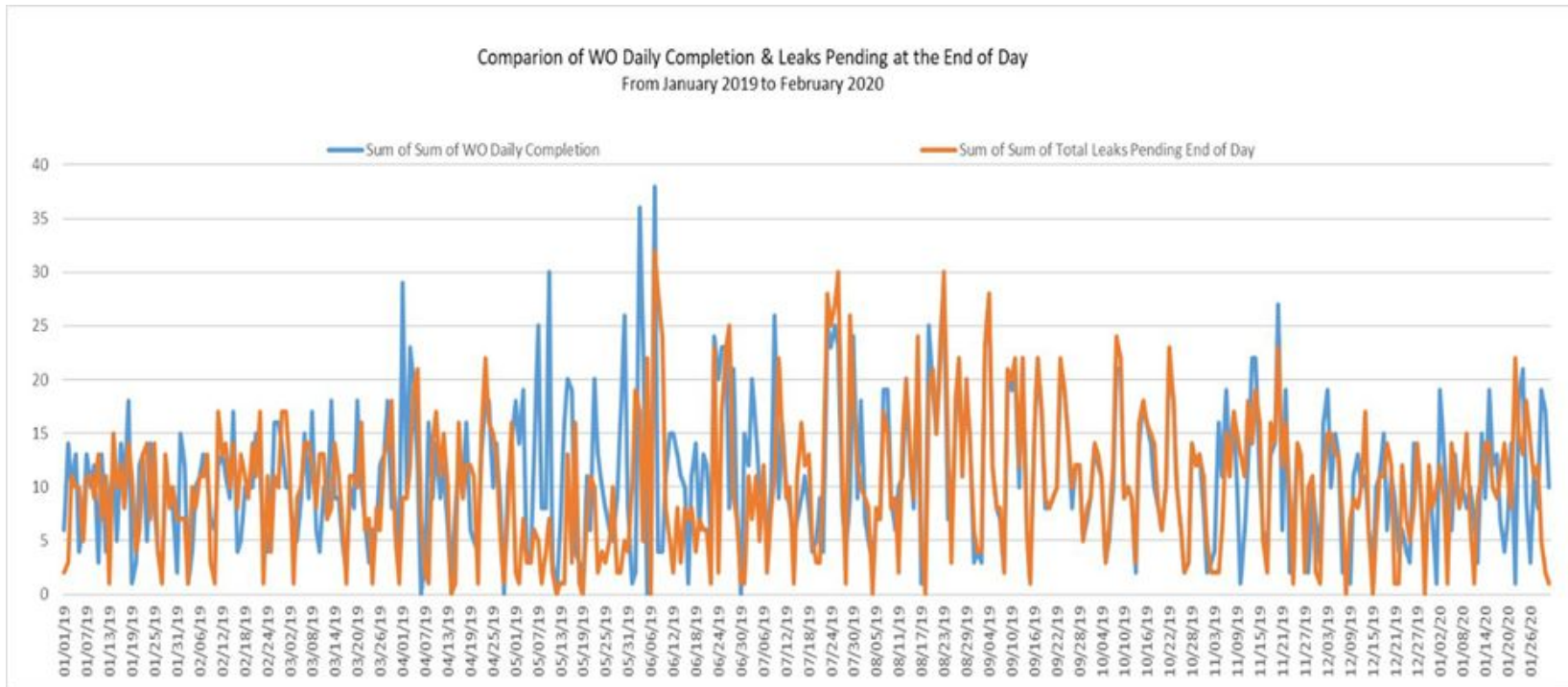
### Status Information (for February 2020)

- 1 item delayed - The Court Order is down to one item remaining, § II, (C), (29) – Storage tank Repair. Restoration, Replacement or Relocation – which is the item that will take longer than the “end” of the court order. That makes us 98.9% done with the CO.
- Final Date to complete all Court Order items will be delayed past December 31, 2020.
  - CO 29(b) has been expanded by 31% beyond the original Court Order Requirements
  - General Counsel is reviewing filing requirements and content
  - Additional impact likely if 2020 Bond issuance is delayed due to COVID-19 impacts
- Overflow or Bypass events reported to USEPA:
  - 02/12/2020 Ch. Soling, Piti, -- Pipe structure failure
  - 02/16/2020 Liguán Terrace, -- FOG
  - 02/20/2020 Behind Liguán Elementary School, – FOG
  - 02/26/2020 #77 Cebello Ct manhole overflow, – FOG
  - 03/05/2020 Laguna Estates, Yona – manhole cover missing, construction work spillage into manhole – rocks and gravel

## Land Acquisition Summary (as of February 2020)

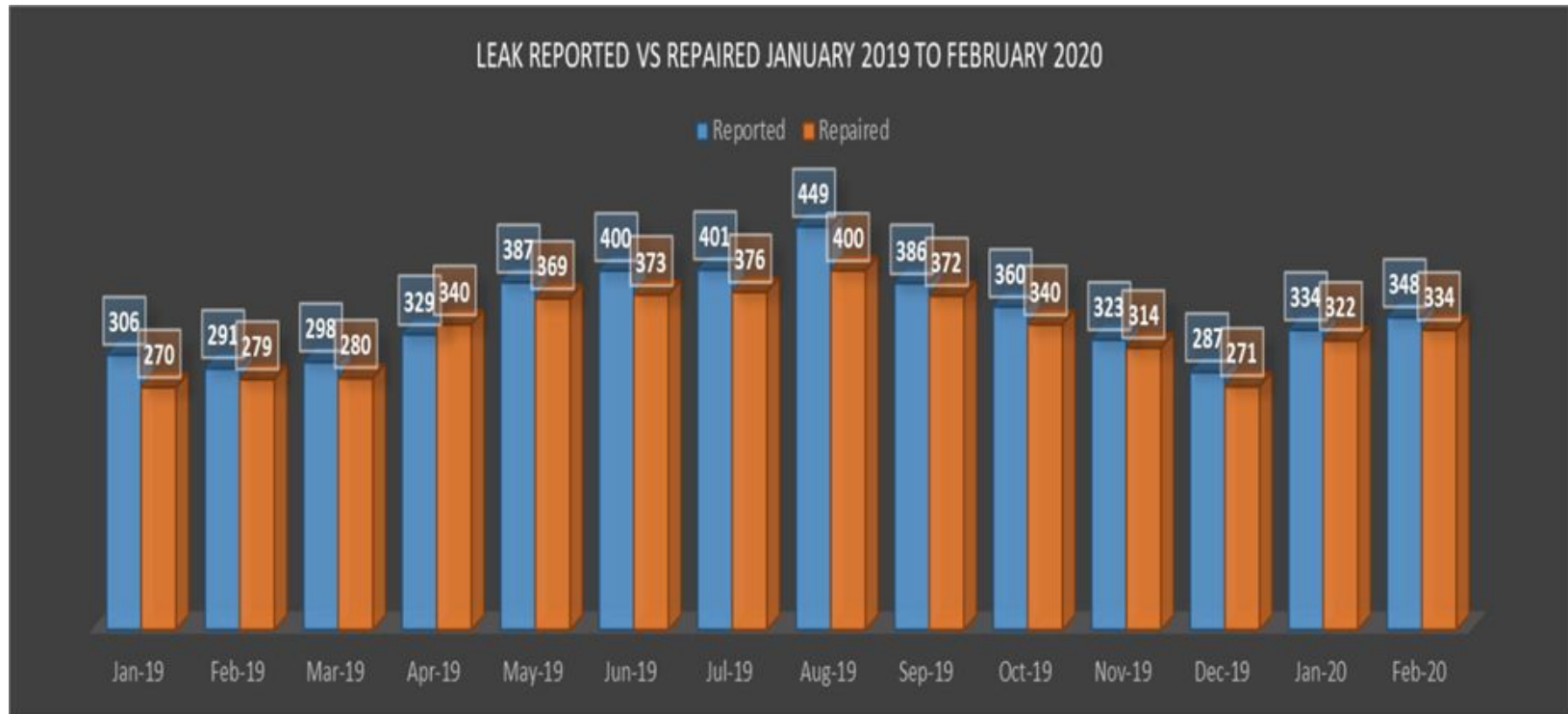
GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	Astumbo	Gov't. - CLTC	Petition of Land Registration package forwarded to Attorney General by DLM 11/04/19.
	Piti	Private	SHPO sect. 106 response received 1/2/20. GEPA Environmental Impact Review received 1/3/20. USFWS Environmental Consultation response received 12/12/19. Environmental Consultation from DOAg Aquatics and wildlife received 3/4/20. Response from DOAg Forestry & soils still pending.
	Airport (access for piping)	Private	Letter of 1 <sup>st</sup> offer to property owner forwarded for GM signature 03/06/2020.
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2 <sup>nd</sup> follow up sent on 09/12/18. 3rd follow up sent on 04/10/19. Retracement Survey Property Map filed and recorded at DLM 7/10/19.
Booster Pump Station	Agfayan	Private	TGE working on structural design for pump station area for L28, B19, T3734, Inarajan 11/07/19.
Asan Springs	Asan	Federal	Received remaining comments from Federal and GovGuam agencies in regards to Section 106 on 12/16/19. GWA and Designer negotiated on a Revised Change Order No. 2 submitted on 2/26/2020. CO. No. 2 is to address Federal and Local agencies concerns, specifically on developing an Environmental Assessment and performing Biological Survey work. Pending approval for revised CO. No.2 as of 3/3/2020. Negotiations with NPS on a ROW agreement is ongoing.

Leak Repair Summary (February 2020)

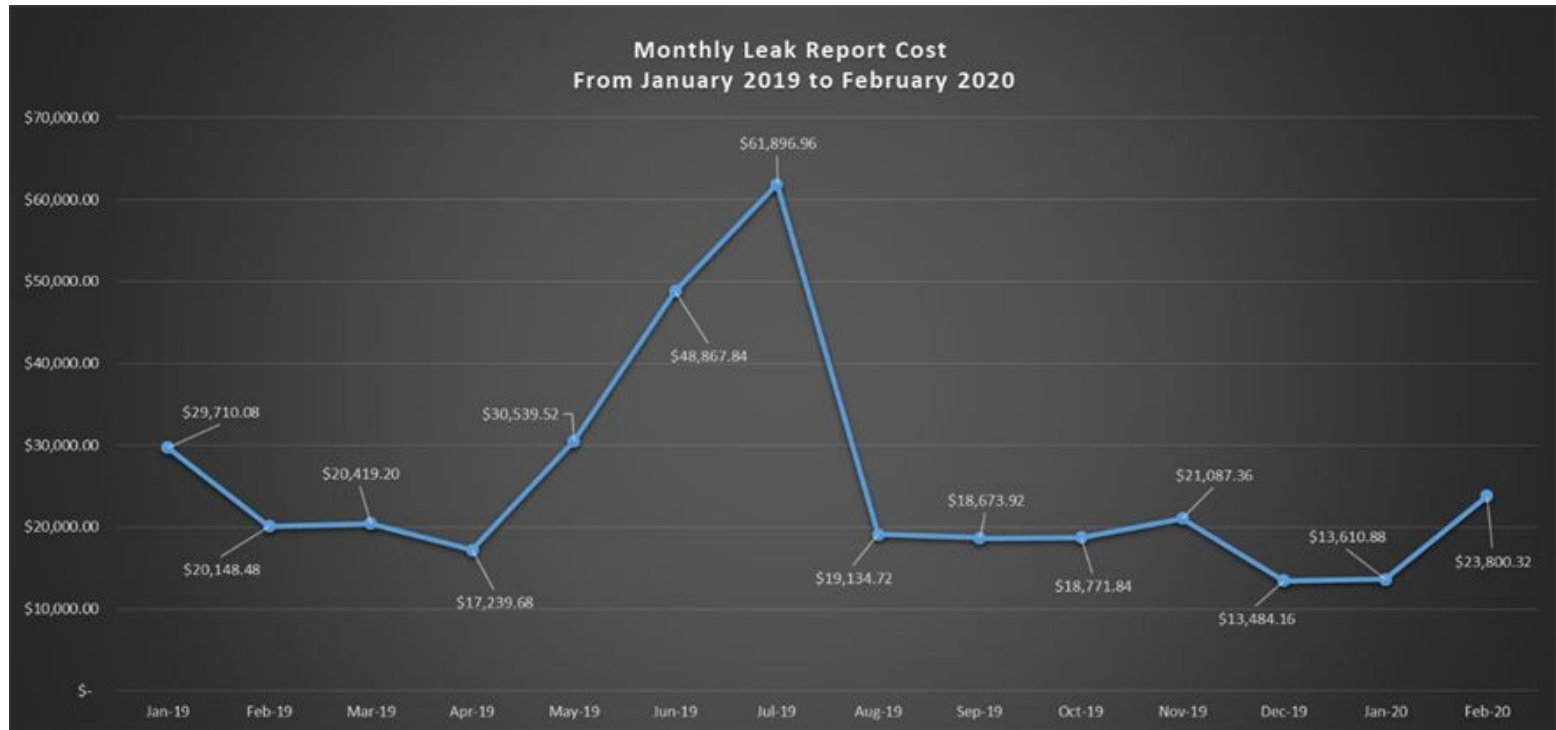




Comparison of Leaks Reported vs. Leaks Repaired (February 2020)



Monthly Leak Report Cost (February 2020)



Assumptions:

1. Leak rate = 4 gpm
2. Cost per kgal = \$4.00



**Financial Statement Overview  
February 2020**

Attached are the financial statements and supporting schedules for the month and fiscal year to date ended February 29, 2020.

***Balance Sheet***

- Total Assets & Deferred Outflows of Resources were about the same at \$916.5M in February 2020 compared to \$913M in September 2019 or an increase of \$3.5M. Current Assets decreased by \$1.8M, Property, Plant and Equipment increased by \$19M, and Other Noncurrent Assets decreased by \$13.4M. Note that Schedule F contains a schedule of restricted and unrestricted cash and investments.
- The \$12.2M or -2% decrease in Liabilities & Deferred Inflow of Resources of \$701.6M at February 2020 from \$713.8M September 2019 was primarily due to decreases in Current Liabilities of \$11.6M.
- Accounts Receivable days were 45 in February 2020 as compared to 51 in September 2019 and Accounts Payable days were 34 in February 2020 as compared to 38 in September 2019.

***Statement of Operations and Retained Earnings***

- Total Operating Revenues for February 2020 of \$9.5M were 3% or \$251K less than budget and 10% or \$871K more than February 2019.
- Year to Date Operating Revenues as of February 2020 of \$46.7M were \$1.9M or 4% less compared to budget and \$1.3M or 3% more than prior year.
- While residential consumption has picked up compared to last year (water consumption +7%, wastewater consumption +9%), we are monitoring reductions in certain commercial accounts. Overall consumption has gone up 5% for water and 4% for wastewater compared to last year. We will also be monitoring bills as they drop in March to determine the effect of the reduction in tourists on revenues. See Schedule K for Water Demand for FY2015 to FY2020.
- Total Operating Expenses for February 2020 of \$7.3M were \$71K or 1% less than budget, with all expenses coming in below budget except for Depreciation. Total Operating Expenses for February 2020 were 5% or \$344K more than February 2019 with the increases in Utilities of \$12.8K, Salaries and Benefits of \$204K, Administrative & General Expenses of \$158K, and Depreciation of \$282.9K offset by decreases in Contractual Expense of \$270K and Retiree Benefits of \$44K.
- Year to Date Operating Expenses at February 2020 of \$36.4M were \$706M less than budget of \$37M with expenses coming in below budget except for Power and Depreciation. Year to Date Operating Expenses at February 2020 were \$1.7M or 5% more than last year's \$34.6M with increases in Utility Costs of \$1M, Administrative & General Expense of \$219.7K, and Depreciation of \$1.2M offset by decreases in Net Salaries and Benefits of \$143K, Contractual Expenses of \$370K, and Retiree Benefits of \$233.5K.
- Earnings from Operations for February 2020 of \$2.1M were 8% or \$179.8K less than budget and 33% or \$527.5K more than February 2019. Net Assets for February 2020 of \$5.5M were \$1.1M less than budget mainly due to a reduction in AFUDC of \$1.2M and \$892.5 or 19% more than February 2019.
- Year to Date Earnings from Operations for February 2020 of \$10.3M were 11% or \$1.2M less than budget and 4% or \$484.7 less than February 2019. Year to Date Net Assets for February 2020 of \$15.7M were \$17.6M less



than budget mainly due \$12.98M less in Grants from US Government and \$5.7 less in AFUDC than projected. However, Year to Date Net Assets for February 2020 were \$957K or 6% more than February 2019.

#### **Key Financial Indicators**

Indicator	Target	January 2020	February 2020
DSC for the Month			
• Per Section 6.12 of Indenture	1.25	1.32	1.47
• Inclusive of Reserves	1.75	1.66	1.82
DSC YTD			
• Per Section 6.12 of Indenture	1.25	1.39	1.45
• Inclusive of Reserves	1.75	1.73	1.79
Days – Cash on Hand		217 days	221 days
Collection Ratio			
• Year to Date		98%	99%
Days Billed	30	30	31
Employee Count	400 FTE	377 FTE	379 FTE
Water Customers	42,644	42,828	42,722
Wastewater Customers	29,687	29,488	29,419

#### **Assumptions**

Budgets for revenues were calculated using rates in place at the beginning of FY2020 against projected volume and expenditures are budgeted at FY19 levels due to the delay in PUC approval of rate request. Budget will be updated in March based on PUC Rate Order.

#### **Closing Comments**

The FY2020 Rate Increase was implemented for all bills issued in March. Finance will be closely monitoring consumption data to determine the effects of the downturn in tourism on GWA revenues. In the meantime, GWA is balancing its need to ensure critical equipment and materials are available should there be a disruption in the supply chain with the need to curtail unnecessary expenditures.

**GUAM WATERWORKS AUTHORITY  
FEBRUARY 29, 2020  
FINANCIAL AND RELATED REPORTS  
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**GUAM WATERWORKS AUTHORITY**  
**Balance Sheet**  
**February 29, 2020**

**SCHEDULE A**

	Unaudited February 29, 2020	Unaudited September 30, 2019	Increase (Decrease)
<b>ASSETS AND DEFERRED OUTFLOWS of RESOURCES</b>			
<u>Current Assets</u>			
Cash			
Unrestricted (Schedule F)	8,096,145	4,962,036	3,134,109
Restricted Funds (Schedule F)	84,808,475	86,491,728	(1,683,253)
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of \$8,715,149 at Feb 29, 2020 and \$7,789,943 at Sep 30, 2019	13,144,940	14,346,247	(1,201,307)
Federal Receivable	2,029,325	3,711,435	(1,682,111)
Other Receivable	1,679,813	1,794,082	(114,267)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of \$64,131 at Feb 29, 2020 and \$64,131 at Sep 30, 2019	3,639,074	3,897,352	(258,278)
Total Current Assets	113,397,772	115,202,881	(1,805,107)
<u>Property, Plant and Equipment</u>			
Utility plant in service			
Water system	382,703,739	381,484,623	1,219,116
Wastewater system	456,847,752	429,896,579	26,951,173
Non-utility property	23,816,841	23,200,625	616,216
Total property	863,368,332	834,581,827	28,786,505
Less: Accumulated Depreciation	(331,558,211)	(321,561,403)	(9,996,807)
Land	3,914,815	3,914,815	-
Construction Work in Progress	100,430,725	100,162,613	268,112
Property, Plant and Equipment, net	636,155,661	617,097,852	19,057,810
<u>Other noncurrent assets</u>			
Restricted cash (Schedule F)	95,684,132	109,937,511	(14,253,379)
Investments (Schedule F)	45,305,166	43,808,664	1,496,502
Other Prepaid Expenses	1,030,189	1,667,816	(637,627)
Total other noncurrent assets	142,019,488	155,413,991	(13,394,504)
<b>Total Assets</b>	<b>891,572,921</b>	<b>887,714,724</b>	<b>3,858,198</b>
Deferred outflows of resources			
Debt defeasance due to bond refunding	11,631,502	11,976,380	(344,878)
Deferred outflows from pension	4,233,025	4,233,025	-
Deferred outflows from OPEB	9,070,814	9,070,814	-
<b>Total Assets and Deferred Outflows of Resources</b>	<b>916,508,263</b>	<b>912,994,943</b>	<b>3,513,321</b>
<b>LIABILITIES, DEFERRED INFLOWS of RESOURCES AND NET ASSETS</b>			
<u>Current Liabilities</u>			
Current maturities of long-term debt			
Series 2010 Revenue Bond	1,895,000	1,895,000	-
Series 2013 Revenue Bond	2,695,000	2,695,000	-
Series 2014 Refunding Bond	3,760,000	3,760,000	-
Series 2016 Revenue Bond	420,000	420,000	-
Notes Payable	934,322	2,319,108	(1,384,786)
Accounts Payable -Trade	3,080,840	4,121,364	(1,040,524)
Accrued and Other Liabilities	992,045	1,374,650	(382,606)
Interest Payable	4,234,198	6,359,303	(2,125,105)
Accrued Payroll and Employee Benefits	1,217,115	1,685,235	(468,119)
Accrued Annual Leave	1,054,545	1,054,545	-
Current portion of employee annual leave	584,204	584,204	-
Contractors' Payable	16,013,900	22,094,820	(6,080,919)
Customer and Other Deposits	2,226,793	2,349,490	(122,698)
Total Current Liabilities	39,107,961	50,712,718	(11,604,757)
<u>Long Term Debt, less current maturities</u>			
Series 2013 Revenue Bond	169,935,000	169,935,000	-
Series 2014 Refunding Bond	65,140,000	65,140,000	-
Series 2016 Revenue Bond	142,890,000	142,890,000	-
Series 2017 Refunding Bond	107,365,000	107,365,000	-
Unamortized Bond Premium/Discount	31,263,741	31,863,590	(599,849)
Net pension liability	45,451,352	45,451,352	-
Net OPEB obligation	88,950,661	88,950,661	-
Employee Annual Leave, Less Current Portion	838,545	838,545	-
<b>Total Liabilities</b>	<b>690,942,260</b>	<b>703,146,866</b>	<b>(12,204,606)</b>
Deferred inflows of resources:			
Deferred inflows from pension	1,870,115	1,870,115	-
Deferred inflows from OPEB	8,741,900	8,741,900	-
<b>Total Liabilities and Deferred Inflows of Resources</b>	<b>701,554,275</b>	<b>713,758,880</b>	<b>(12,204,606)</b>
<b>Net Assets</b>	<b>214,953,988</b>	<b>199,236,062</b>	<b>15,717,926</b>
<b>Total Liabilities, Deferred Inflows of Resources and Net Assets</b>	<b>916,508,263</b>	<b>912,994,943</b>	<b>3,513,320</b>

**GUAM WATERWORKS AUTHORITY**  
**Statement of Operations and Retained Earnings**  
**Comparative Budget vs. Actual for the period ending February 29, 2020**

SCHEDULE B

	Month to Date		Variance
	Budget	Actual (Unaudited)	Favorable /
	February-20	February-20	(Unfavorable)
<b>OPERATING REVENUES</b>			
Water Revenues	5,887,215	5,667,947	(219,268)
Wastewater Revenues	3,401,093	3,287,670	(113,422)
Legislative Surcharge	304,243	290,462	(13,781)
Other Revenues	38,254	162,951	124,698
System Development Charge	97,773	68,257	(29,515)
<b>Total Operating Revenues</b>	<b>9,728,578</b>	<b>9,477,288</b>	<b>(251,290)</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>			
Water Purchases	662,577	593,669	68,908
Power Purchases	1,256,315	1,250,180	6,135
Total Utility Costs	1,918,892	1,843,849	75,043
Salaries and Wages	1,782,365	1,669,707	112,658
Pension and Benefits	562,238	534,390	27,848
Total Salaries and Benefits	2,344,603	2,204,097	140,506
Capitalized Labor and Benefits	(308,333)	(280,174)	(28,159)
Net Salaries and Benefits	2,036,269	1,923,923	112,346
<b>Administrative and General Expenses</b>			
Sludge removal	103,771	96,739	7,032
Chemicals	220,801	219,332	1,469
Materials & Supplies	218,606	214,015	4,591
Transportation	46,148	43,667	2,481
Communications	10,054	6,853	3,201
Claims	3,417	-	3,417
Insurance	79,461	77,860	1,601
Training & Travel	37,917	35,486	2,431
Advertising	6,500	3,193	3,307
Miscellaneous	78,632	78,401	230
Regulatory Expense	25,029	16,321	8,708
Bad Debts Provision	189,148	185,889	3,259
Total Administrative and General Expense	1,019,483	977,756	41,727
<b>Depreciation Expense</b>	<b>1,759,065</b>	<b>2,041,971</b>	<b>(282,906)</b>
<b>Contractual Expense</b>			
Audit & Computer Maintenance	58,783	31,586	27,197
Building rental	38,361	36,253	2,108
Equipment rental	114,980	111,460	3,519
Legal	512	-	512
Laboratory	9,862	4,871	4,991
Other	158,458	131,772	26,686
Total Contractual Expense	380,956	315,943	65,013
Retiree Supp. Annuities and health care costs	249,871	191,260	58,611
Contribution to Government of Guam	51,975	50,333	1,642
Total Retiree Benefits	301,846	241,593	60,253
<b>Total Operating Expenses</b>	<b>7,416,512</b>	<b>7,345,035</b>	<b>71,476</b>
<b>Earnings (Loss) from Operations</b>	<b>2,312,066</b>	<b>2,132,252</b>	<b>(179,814)</b>
Interest Income - 2010/13/14/16/17 Series Bond	84,943	157,655	72,712
Interest Income - Other Funds	13,856	44,393	30,537
Interest Income - SDC	2,072	11,052	8,980
Interest Expense - 2010/13/14/16/17 Series Bond	(2,387,785)	(2,117,099)	270,686
Interest Expense - ST BOG	(19,762)	(5,934)	13,828
Loss on Asset Disposal	-	(15,386)	(15,386)
AFUDC	1,157,306	-	(1,157,306)
Amortization of Discount, Premium and Issuance Costs	(17,798)	119,970	137,768
Defeasance due to bond refunding	(16,201)	(68,976)	(52,775)
Deferred outflows from pension	-	-	-
Prior Year Adjustment	-	(1,235)	(1,235)
Total non-operating revenues (expenses)	(1,183,369)	(1,875,559)	(692,190)
<b>Net Income (Loss) before capital contributions</b>	<b>1,128,697</b>	<b>256,693</b>	<b>(872,004)</b>
<b>Capital Contributions</b>			
Grants from US Government	5,533,205	5,284,656	(248,549)
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	5,533,205	5,284,656	(248,549)
<b>Change in Net Assets</b>	<b>6,661,902</b>	<b>5,541,349</b>	<b>(1,120,553)</b>
<b>Debt Service Calculation</b>			
Earnings From Operations	2,312,066	2,132,252	
System Development Charge	(97,773)	(68,257)	
Retiree COLA	51,975	50,333	
Interest/Investment Income	13,856	44,393	
Depreciation	1,759,065	2,041,971	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>4,039,190</b>	<b>4,200,692</b>	
Working Capital Reserve Available for Debt Service	934,811	969,418	
Transfer to Working Capital - Debt Service Reserve	-	-	
Transfer to Working Capital - O&M Reserve	-	-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>4,974,001</b>	<b>5,170,109</b>	
<b>Debt Service</b>			
Principal	730,833	730,833	
Interest	2,117,099	2,117,099	
<b>Total</b>	<b>2,847,932</b>	<b>2,847,932</b>	
<b>Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)</b>	<b>1.42</b>	<b>1.47</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.75</b>	<b>1.82</b>	

**GUAM WATERWORKS AUTHORITY**  
**Statement of Operations and Retained Earnings (Unaudited)**  
**Comparative for the period ending February 2020 and 2019**

**SCHEDULE C**

	<b>Month to Date</b>		<b>Variance</b>
	<b>Actual</b>	<b>Actual</b>	<b>Increase /</b>
	<b>February-20</b>	<b>February-19</b>	<b>(Decrease)</b>
<b>OPERATING REVENUES</b>			
Water Revenues	5,667,947	5,122,717	545,230
Wastewater Revenues	3,287,670	3,083,668	204,002
Legislative Surcharge	290,462	263,157	27,305
Other Revenues	162,951	62,707	100,245
System Development Charge	68,257	73,503	(5,245)
<b>Total Operating Revenues</b>	<b>9,477,288</b>	<b>8,605,751</b>	<b>871,537</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>			
Water Purchases	593,669	599,697	(6,028)
Power Purchases	1,250,180	1,231,315	18,865
Total Utility Costs	1,843,849	1,831,012	12,837
Salaries and Wages	1,669,707	1,549,224	120,483
Pension and Benefits	534,390	478,549	55,842
Total Salaries and Benefits	2,204,097	2,027,772	176,325
Capitalized Labor and Benefits	(280,174)	(308,333)	28,159
Net Salaries and Benefits	1,923,923	1,719,439	204,484
<b>Administrative and General Expenses</b>			
Sludge removal	96,739	120,412	(23,673)
Chemicals	219,332	185,026	34,306
Materials & Supplies	214,015	119,909	94,106
Transportation	43,667	38,018	5,649
Communications	6,853	14,483	(7,630)
Claims	-	473	(473)
Insurance	77,860	75,209	2,651
Training & Travel	35,486	7,616	27,870
Advertising	3,193	7,464	(4,271)
Miscellaneous	78,401	69,537	8,864
Regulatory Expense	16,321	12,147	4,175
Bad Debts Provision	185,889	169,344	16,545
Total Administrative and General Expense	977,756	819,638	158,119
<b>Depreciation Expense</b>	<b>2,041,971</b>	<b>1,759,065</b>	<b>282,906</b>
<b>Contractual Expense</b>			
Audit & Computer Maintenance	31,586	56,718	(25,132)
Building rental	36,253	35,211	1,042
Equipment rental	111,460	133,038	(21,578)
Legal	-	-	-
Laboratory	4,871	25,196	(20,325)
Other	131,772	335,973	(204,201)
Total Contractual Expense	315,943	586,136	(270,193)
Retiree Supp. Annuities and health care costs	191,260	235,740	(44,480)
Contribution to Government of Guam	50,333	50,000	333
Total Retiree Benefits	241,593	285,740	(44,147)
<b>Total Operating Expenses</b>	<b>7,345,035</b>	<b>7,001,030</b>	<b>344,006</b>
<b>Earnings (Loss) from Operations</b>	<b>2,132,252</b>	<b>1,604,721</b>	<b>527,531</b>
Interest Income - 2010/13/14/16/17 Series Bond	157,655	370,239	(212,584)
Interest Income - Other Funds	44,393	72,321	(27,928)
Interest Income - SDC	11,052	12,169	(1,117)
Interest Expense - 2010/13/14/16/17 Series Bond	(2,117,099)	(2,137,785)	20,686
Interest Expense - ST BOG	(5,934)	(18,676)	12,742
Loss on Asset Disposal	(15,386)	-	(15,386)
AFUDC	-	1,157,306	(1,157,306)
Amortization of Discount, Premium and Issuance Costs	119,970	119,709	261
Defeasance due to bond refunding	(68,976)	(69,534)	558
Deferred outflows from pension	-	(8,931)	8,931
Prior Year Adjustment	(1,235)	(289)	(946)
Total non-operating revenues (expenses)	(1,875,559)	(503,470)	(1,372,090)
<b>Net Income (Loss) before capital contributions</b>	<b>256,693</b>	<b>1,101,252</b>	<b>(844,559)</b>
<b>Capital Contributions</b>			
Grants from US Government	5,284,656	3,495,637	1,789,019
Grants from GovGuam & Others	-	51,879	(51,879)
Total Capital Contributions	5,284,656	3,547,516	1,737,139
<b>Change in Net Assets</b>	<b>5,541,349</b>	<b>4,648,768</b>	<b>892,581</b>
<b>Debt Service Calculation</b>			
Earnings From Operations	2,132,252	1,604,721	
System Development Charge	(68,257)	(73,503)	
Retiree COLA	50,333	50,000	
Interest/Investment Income	44,393	72,321	
Depreciation	2,041,971	1,759,065	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>4,200,692</b>	<b>3,412,604</b>	
Working Capital Reserve Available for Debt Service	969,418	952,508	
Transfer to Working Capital - Debt Service Reserve	-	-	
Transfer to Working Capital - O&M Reserve	-	-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>5,170,109</b>	<b>4,365,113</b>	
<b>Debt Service</b>			
Principal	730,833	476,250	
Interest	2,117,099	2,137,785	
<b>Total</b>	<b>2,847,932</b>	<b>2,614,035</b>	
<b>Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)</b>	<b>1.47</b>	<b>1.31</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.82</b>	<b>1.67</b>	



**GUAM WATERWORKS AUTHORITY**  
**Statement of Operations and Retained Earnings**  
**Comparative Budget vs. Actual for the period ending February 29, 2020**

SCHEDULE D

	Year to Date Budget February-20	Actual (Unaudited) February-20	Variance Favorable / (Unfavorable)
<b>OPERATING REVENUES</b>			
Water Revenues	29,436,076	28,387,419	(1,048,657)
Wastewater Revenues	17,005,464	16,363,823	(641,640)
Legislative Surcharge	1,521,216	1,458,255	(62,961)
Other Revenues	191,269	283,877	92,607
System Development Charge	488,863	200,543	(288,319)
<b>Total Operating Revenues</b>	<b>48,642,888</b>	<b>46,693,917</b>	<b>(1,948,970)</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>			
Water Purchases	2,972,886	2,968,345	4,541
Power Purchases	6,641,575	6,642,737	(1,162)
Total Utility Costs	9,614,461	9,611,082	3,379
Salaries and Wages	8,911,825	7,925,139	986,687
Pension and Benefits	2,811,189	2,576,489	234,700
Total Salaries and Benefits	11,723,014	10,501,628	1,221,386
Capitalized Labor and Benefits	(1,541,667)	(1,430,297)	(111,369)
Net Salaries and Benefits	10,181,347	9,071,330	1,110,017
<b>Administrative and General Expenses</b>			
Sludge removal	633,856	599,109	34,747
Chemicals	929,007	834,248	94,759
Materials & Supplies	838,028	821,149	16,878
Transportation	243,238	240,893	2,345
Communications	75,271	51,451	23,820
Claims	42,083	31,693	10,390
Insurance	397,304	389,526	7,778
Training & Travel	102,083	94,734	7,349
Advertising	12,500	10,293	2,207
Miscellaneous	463,159	445,131	18,028
Regulatory Expense	190,145	188,923	1,222
Bad Debts Provision	925,741	925,118	624
Total Administrative and General Expense	4,852,415	4,632,268	220,147
<b>Depreciation Expense</b>	<b>8,795,325</b>	<b>10,035,668</b>	<b>(1,240,343)</b>
<b>Contractual Expense</b>			
Audit & Computer Maintenance	233,917	176,022	57,895
Building rental	191,805	181,500	10,305
Equipment rental	439,898	437,474	2,424
Legal	22,560	18,082	4,479
Laboratory	174,312	98,900	75,412
Other	1,067,288	912,170	155,117
Total Contractual Expense	2,129,780	1,824,147	305,632
Retiree Supp. Annuities and health care costs	1,249,354	950,343	299,012
Contribution to Government of Guam	259,875	251,669	8,206
Total Retiree Benefits	1,509,229	1,202,012	307,218
<b>Total Operating Expenses</b>	<b>37,082,558</b>	<b>36,376,508</b>	<b>706,050</b>
<b>Earnings (Loss) from Operations</b>	<b>11,560,330</b>	<b>10,317,409</b>	<b>(1,242,920)</b>
Interest Income - 2010/13/14/16/17 Series Bond	424,715	920,988	496,273
Interest Income - Other Funds	69,281	246,421	177,140
Interest Income - SDC	10,359	59,062	48,703
Interest Expense - 2010/13/14/16/17 Series Bond	(11,938,923)	(10,585,495)	1,353,428
Interest Expense - ST BOG	(98,810)	(32,208)	66,602
Loss on Asset Disposal	-	(118,143)	(118,143)
AFUDC	5,786,528	-	(5,786,528)
Amortization of Discount, Premium and Issuance Costs	(88,990)	599,849	688,839
Defeasance due to bond refunding	(81,005)	(344,878)	(263,873)
Deferred outflows from pension	-	-	-
Prior Year Adjustment	-	(29,503)	(29,503)
Total non-operating revenues (expenses)	(5,916,845)	(9,283,906)	(3,367,061)
<b>Net Income (Loss) before capital contributions</b>	<b>5,643,485</b>	<b>1,033,503</b>	<b>(4,609,982)</b>
<b>Capital Contributions</b>			
Grants from US Government	27,666,025	14,684,422	(12,981,603)
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	27,666,025	14,684,422	(12,981,603)
<b>Change in Net Assets</b>	<b>33,309,510</b>	<b>15,717,926</b>	<b>(17,591,585)</b>
<b>Debt Service Calculation</b>			
Earnings From Operations	11,560,330	10,317,409	
System Development Charge	(488,863)	(200,543)	
Retiree COLA	259,875	251,669	
Interest/Investment Income	69,281	246,421	
Depreciation	8,795,325	10,035,668	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>20,195,948</b>	<b>20,650,624</b>	
Working Capital Reserve Available for Debt Service	4,674,056	4,847,088	
Transfer to Working Capital - Debt Service Reserve	-	-	
Transfer to Working Capital - O&M Reserve	-	-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>24,870,004</b>	<b>25,497,711</b>	
<b>Debt Service</b>			
Principal	3,654,167	3,654,167	
Interest	10,585,495	10,585,495	
<b>Total</b>	<b>14,239,661</b>	<b>14,239,661</b>	
<b>Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)</b>	<b>1.42</b>	<b>1.45</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.75</b>	<b>1.79</b>	

**GUAM WATERWORKS AUTHORITY**  
**Statement of Operations and Retained Earnings (Unaudited)**  
**Comparative for the period ending February 2020 and 2019**

**SCHEDULE E**

	Year to Date		Variance
	Actual February-20	Actual February-19	Increase / (Decrease)
<b>OPERATING REVENUES</b>			
Water Revenues	28,387,419	27,682,192	705,227
Wastewater Revenues	16,363,823	15,793,509	570,314
Legislative Surcharge	1,458,255	1,469,051	(10,796)
Other Revenues	283,877	221,267	62,610
System Development Charge	200,543	265,732	(65,188)
<b>Total Operating Revenues</b>	<b>46,693,917</b>	<b>45,431,750</b>	<b>1,262,167</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>			
Water Purchases	2,968,345	2,522,238	446,107
Power Purchases	6,642,737	6,055,239	587,499
Total Utility Costs	9,611,082	8,577,477	1,033,605
Salaries and Wages	7,925,139	8,172,664	(247,525)
Pension and Benefits	2,576,489	2,583,248	(6,759)
Total Salaries and Benefits	10,501,628	10,755,912	(254,284)
Capitalized Labor and Benefits	(1,430,297)	(1,541,665)	111,368
Net Salaries and Benefits	9,071,330	9,214,247	(142,917)
<b>Administrative and General Expenses</b>			
Sludge removal	599,109	624,797	(25,688)
Chemicals	834,248	819,332	14,917
Materials & Supplies	821,149	752,573	68,577
Transportation	240,893	215,161	25,732
Communications	51,451	55,387	(3,936)
Claims	31,693	35,899	(4,206)
Insurance	389,526	375,896	13,630
Training & Travel	94,734	76,713	18,021
Advertising	10,293	32,148	(21,854)
Miscellaneous	445,131	461,568	(16,438)
Regulatory Expense	188,923	64,255	124,668
Bad Debts Provision	925,118	898,848	26,269
Total Administrative and General Expense	4,632,268	4,412,576	219,692
<b>Depreciation Expense</b>	<b>10,035,668</b>	<b>8,795,325</b>	<b>1,240,343</b>
<b>Contractual Expense</b>			
Audit & Computer Maintenance	176,022	232,158	(56,136)
Building rental	181,500	176,054	5,446
Equipment rental	437,474	472,925	(35,452)
Legal	18,082	-	18,082
Laboratory	98,900	136,993	(38,093)
Other	912,170	1,176,328	(264,158)
Total Contractual Expense	1,824,147	2,194,458	(370,311)
Retiree Supp. Annuities and health care costs	950,343	1,185,539	(235,196)
Contribution to Government of Guam	251,669	250,000	1,669
Total Retiree Benefits	1,202,012	1,435,539	(233,527)
<b>Total Operating Expenses</b>	<b>36,376,508</b>	<b>34,629,623</b>	<b>1,746,885</b>
<b>Earnings (Loss) from Operations</b>	<b>10,317,409</b>	<b>10,802,127</b>	<b>(484,718)</b>
Interest Income - 2010/13/14/16/17 Series Bond	920,988	1,752,915	(831,927)
Interest Income - Other Funds	246,421	333,577	(87,155)
Interest Income - SDC	59,062	68,021	(8,959)
Interest Expense - 2010/13/14/16/17 Series Bond	(10,585,495)	(10,688,923)	103,428
Interest Expense - ST BOG	(32,208)	(92,641)	60,433
Federal Expenditures	-	-	-
Loss on Asset Disposal	(118,143)	-	(118,143)
AFUDC	-	5,786,530	(5,786,530)
Amortization of Discount, Premium and Issuance Costs	599,849	598,545	1,304
Defeasance due to bond refunding	(344,878)	(347,670)	2,792
Deferred outflows from pension	-	(44,653)	44,653
Prior Year Adjustment	(29,503)	(26,185)	(3,318)
Total non-operating revenues (expenses)	(9,283,906)	(2,660,484)	(6,623,422)
<b>Net Income (Loss) before capital contributions</b>	<b>1,033,503</b>	<b>8,141,643</b>	<b>(7,108,140)</b>
<b>Capital Contributions</b>			
Grants from US Government	14,684,422	6,567,016	8,117,406
Grants from GovGuam & Others	-	51,879	(51,879)
Total Capital Contributions	14,684,422	6,618,895	8,065,527
<b>Change in Net Assets</b>	<b>15,717,926</b>	<b>14,760,538</b>	<b>957,387</b>
<b>Debt Service Calculation</b>			
Earnings From Operations	10,317,409	10,802,127	
System Development Charge	(200,543)	(265,732)	
Retiree COLA	251,669	250,000	
Interest/Investment Income	246,421	333,577	
Depreciation	10,035,668	8,795,325	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>20,650,624</b>	<b>19,915,297</b>	
Working Capital Reserve Available for Debt Service	4,847,088	4,762,542	
Transfer to Working Capital - Debt Service Reserve	-	-	
Transfer to Working Capital - O&M Reserve	-	-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>25,497,711</b>	<b>24,677,839</b>	
<b>Debt Service</b>			
Principal	3,654,167	2,381,250	
Interest	10,585,495	10,688,923	
<b>Total</b>	<b>14,239,661</b>	<b>13,070,173</b>	
<b>Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)</b>	<b>1.45</b>	<b>1.52</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.79</b>	<b>1.89</b>	

**GUAM WATERWORKS AUTHORITY**  
**Restricted and Unrestricted Cash Summary**  
**FY2020**

**SCHEDULE F**

Description	Unaudited February 29, 2020	Unaudited September 30, 2019	Increase (Decrease)
<b>UNRESTRICTED</b>			
Change Fund	2,000	2,000	-
Petty Cash	4,450	4,450	-
BOG Deposit Accounts	8,089,696	4,955,587	3,134,109
<b>Sub-total Unrestricted</b>	<b>8,096,145</b>	<b>4,962,036</b>	<b>3,134,109</b>
<b>RESTRICTED</b>			
ANZ Bank	-	19	(19)
Bank Pacific	7,872	12,321	(4,449)
Bank of Hawaii	192,342	220,158	(27,816)
Community First FCU	1,887	2,530	(643)
First Hawaiian Bank	8,310	11,761	(3,451)
Bank Pacific Surcharge	854,899	302,837	552,062
Bank Pacific Escrow Deposit	842,001	836,528	5,473
BOG Customer Refunds	2,008,606	1,871,553	137,053
BOG Emergency Reserve Fund	6,240	6,237	3
BOG Sewer Hookup Revolving Fund	67,363	67,094	268
BOG Subordinate Security Fund	859,233	859,233	-
BOG Operation and Maintenance Fund	3,083,482	3,083,482	-
BOG OMRRRF Fund	17,423,213	17,423,213	-
BOG Revenue Trust	347,806	1,164,224	(816,417)
BOG Revenue Trust Fund	8,529,262	7,613,000	916,262
BOG Capital Improvement Revenue Fund	3,805,534	1,001,292	2,804,242
BOG O & M Reserve	14,016,792	13,933,323	83,469
BOG Debt Service Reserve	11,633,010	11,563,736	69,274
BOG CapEx Fund	12,058,458	17,244,823	(5,186,365)
	<b>75,746,309</b>	<b>77,217,363</b>	<b>(1,471,054)</b>
BOG - SDC Deposit	3,312,166	2,024,365	1,287,801
BOG - SDC CDs	5,750,000	7,250,000	(1,500,000)
<b>Total SDC</b>	<b>9,062,166</b>	<b>9,274,365</b>	<b>(212,199)</b>
<b>Total Restricted</b>	<b>84,808,475</b>	<b>86,491,728</b>	<b>(1,683,253)</b>
<b>Reserve Funds</b>			
BOG Series 2013 Construction Fund	12,020,911	14,170,759	(2,149,848)
BOG Series 2014 Refunding Construction Fund	218,761	217,448	1,313
BOG Series 2016 Construction Fund	77,147,015	89,235,554	(12,088,539)
BOG Series 2017 Refunding Construction Fund	6,297,445	6,313,750	(16,305)
<b>Total Restricted - Held by Trustee</b>	<b>95,684,132</b>	<b>109,937,511</b>	<b>(14,253,379)</b>
USB Series 2013 Debt Service Fund	3,448,083	3,082,212	365,871
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	-
USB Series 2014 Refunding Debt Service Fund	3,178,681	1,885,637	1,293,044
USB Series 2014 Refunding Debt Service Reserve Fund	7,698,328	7,798,212	(99,884)
USB Series 2016 Debt Service Fund	1,537,103	1,946,774	(409,671)
USB Series 2016 Debt Service Reserve Fund	7,591,999	7,591,999	-
USB Series 2010 Debt Service Fund	1,309,139	523,353	785,786
USB Series 2017 Refunding Debt Service Reserve Fund	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	943,685	1,382,329	(438,644)
<b>Total Investments</b>	<b>45,305,166</b>	<b>43,808,664</b>	<b>1,496,502</b>
<b>Total Restricted and Unrestricted Cash</b>	<b>233,893,919</b>	<b>245,199,940</b>	<b>(11,306,022)</b>

Guam Waterworks Authority  
Accounts Receivable - Government (Active)  
February 29, 2020

## SCHEDULE G

Customer Name	A G I N G						Total
	No. of Accounts	Current	31 - 60 days	61 - 90 days	91 - 120 days	Over 120 days	
<b>Autonomous Agencies (Active)</b>							
Guam Int'l Airport Authority	8	\$ 40,111	\$ 9,681	\$ 11,605	\$ 12,983	\$ 224,206	298,586
Guam Power Authority	25	202,725	7,254	-	-	-	209,979
Guam Memorial Hospital Authority	3	32,859	35,860	-	-	-	68,719
Guam Housing & Urban Renewal Authority	9	1,047	544	-	-	-	1,591
Port Authority of Guam	5	59	-	-	-	-	59
Guam Housing Corporation	1	33	-	-	-	-	33
<b>Total Autonomous Agencies</b>	<b>51</b>	<b>\$ 276,835</b>	<b>\$ 53,338</b>	<b>\$ 11,605</b>	<b>\$ 12,983</b>	<b>\$ 224,206</b>	<b>578,967</b>
<b>Line Agencies (Active)</b>							
Department of Education	53	\$ 280,173	\$ 224,247	\$ 188,861	\$ 46,310	\$ -	739,590
Department of Corrections	8	72,825	45	-	-	-	72,870
Department of Parks & Recreation	16	40,989	7,008	8,788	4,031	-	60,817
Mayors Council of Guam	60	12,831	793	739	303	43,941	58,607
Department of Public Works	11	18,748	2,456	40	52	7,158	28,454
University of Guam	44	10,646	-	-	-	-	10,646
Guam Fire Department	11	4,757	1,880	14	-	-	6,651
Guam Police Department	7	4,490	1,824	53	-	-	6,367
Department of Agriculture	6	5,504	-	-	-	-	5,504
Department of Public Health & Social Services	8	2,233	738	275	-	-	3,247
Office of the Governor	2	2,178	-	-	-	-	2,178
Department of Youth Affairs	3	1,768	-	-	-	-	1,768
Office of Technology	1	1,620	-	-	-	-	1,620
Guam Solid Waste Authority	2	1,518	-	-	-	-	1,518
Division of Senior Citizens, DPHSS	2	470	237	114	-	-	821
Guam Veterans Affairs Office	2	249	187	176	133	-	745
Office of Civil Defense	2	693	-	-	-	-	693
Department of Mental Health	2	364	290	-	-	-	654
Department of Agriculture-Fisheries	1	512	-	-	-	-	512
Department of Customs & Quarantine	1	389	-	-	-	-	389
Guam Public Library	6	196	48	-	-	-	245
Department of Administration	1	200	-	-	-	-	200
The Office of the Dededo Mayor	1	184	-	-	-	-	184
Guam Energy Office	1	114	59	-	-	-	173
Guam Police Department	1	-	133	-	-	-	133
Merizo Mayor	1	68	51	-	-	-	119
Department of Mental Health And Substance	1	23	23	-	-	-	47
<b>Total Line Agencies</b>	<b>254</b>	<b>\$ 463,743</b>	<b>\$ 240,020</b>	<b>\$ 199,061</b>	<b>\$ 50,830</b>	<b>\$ 51,099</b>	<b>1,004,753</b>
<b>Total as of February 29, 2020 (Active)</b>	<b>305</b>	<b>\$ 740,578</b>	<b>\$ 293,358</b>	<b>\$ 210,666</b>	<b>\$ 63,813</b>	<b>\$ 275,305</b>	<b>1,583,720</b>

**GUAM WATERWORKS AUTHORITY**  
**Accounts Receivable Aging Summary by Rate Class**  
**As of February 29, 2020**

**SCHEDULE H**

Rate Class	A G I N G						Total
	No. of Accounts	Current	31 - 60 days	61 - 90 days	91 - 120 days	Over 120 days	
Agriculture	386	36,323	4,945	1,838	1,830	67,230	112,168
Commercial I	2,700	1,229,400	56,738	25,893	42,997	357,597	1,712,624
Commercial II	25	325,875	1,567	1,349	2,122	251,960	582,874
Commercial III	305	793,354	24,548	42,583	21,337	219,734	1,101,556
Golf Course	16	5,053	-	-	-	-	5,053
Government	444	2,582,073	296,020	210,690	65,215	903,372	4,057,370
Hotel	57	2,847,194	112,999	74,598	8,995	124,420	3,168,206
Irrigation	33	4,008	467	250	262	3,372	8,360
Residential	50,439	4,444,598	716,952	400,131	314,841	5,235,356	11,111,879
<b>Total</b>	<b>54,405</b>	<b>12,267,878</b>	<b>1,214,238</b>	<b>757,332</b>	<b>457,600</b>	<b>7,163,041</b>	<b>21,860,089</b>
		<b>56%</b>	<b>6%</b>	<b>3%</b>	<b>2%</b>	<b>33%</b>	<b>100%</b>

Less Allowance for Doubtful Accounts: (8,715,149)  
 Net Accounts Receivable: **13,144,941**

Days Receivables Outstanding 45

**GUAM WATERWORKS AUTHORITY**  
**Accounts Payable Aging**  
**As of February 29, 2020**

**SCHEDULE I**

<b>AGING</b>						
<u>Current</u>	<u>31 - 60 Days</u>	<u>61 - 90 Days</u>	<u>91 - 120 Days</u>	<u>&gt; 120 Days</u>	<u>Total</u>	
\$ 2,656,822	\$ 76,016	\$ 52,208	\$ 76,490	\$ 219,305	\$	<b>3,080,840</b>
86%	2%	2%	2%	7%		<b>100%</b>

Days Payable Outstanding

34

**Guam Waterworks Authority**  
**System Development Charges Project Status**  
**As of February 29, 2020**

**SCHEDULE J**

	<b>Total</b>
<b>Funding Summary</b>	
Total available project funds	\$ 12,575,956
Total project expenditures and encumbrances	10,214,727
Total unobligated project funds	<b>\$ 2,361,229</b>

**Projects Funded**

<b>Project Description</b>	<b>Expenditures</b>	<b>Outstanding Encumbrances</b>	<b>Expenditures and Encumbrances</b>
Agat-Santa Rita Wastewater Treatment Plant Replacement	1,166,075	35,931	1,202,006
Baza Gardens Wastewater Cross Island Pumping & Conveyance	1,150,881	3,090	1,153,971
Central Guam Reservoirs		280,040	280,040
Line Replacement Phase IV		256,937	256,937
Northern DWWTP		5,422,599	5,422,599
Northern DWWTP (Land Purchase)	1,000,000		1,000,000
Route 4 Relief Sewerline Rehab & Replacement		399,869	399,869
South Paulino Heights Waterline Upgrade	84,056	4,714	88,770
Talofofo Sewer Improvement		241,142	241,142
Umatac Merizo WWTP		39,988	39,988
Groundwater Well Production Meter Rep.		129,405	129,405
	<b>\$ 3,401,012</b>	<b>\$ 6,813,715</b>	<b>\$ 10,214,727</b>

<b>Future planned projects</b>	<b>FY2020</b>
Water Wells	540,000
Water Dist Sys Pipe Replacement & Upgrades	540,000
WWTP Priority 1 Upgrades	300,000
Umatac Merizo STP Replacement	300,000
Wastewater Sewer System Expansion	300,000
	<b>\$ 1,980,000</b>

GUAM WATERWORKS AUTHORITY  
 WATER DEMAND BY RATE CLASS BY METER SIZE  
 FY2015 - FY2020

## SCHEDULE K

CLASS	AUDITED						UNAUDITED			
	FY2015 TOTAL CONSUMPTION (kGal)	FY2016 TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)	FY2017 TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)	FY2018 TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)	FY2019 TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)	FY2020 (5 Mos Annualized) TOTAL CONSUMPTION (kGal)
R Residential	3,415,662	3,429,689	0%	3,206,811	-6%	3,313,613	3%	3,359,905	1%	3,493,445
C Commercial	1,020,089	1,022,890	0%	964,639	-6%	910,905	-6%	906,192	-1%	905,973
F Federal	1,168	1,180	1%	2,508	113%	1,813	-28%	1,602	-12%	1,316
G Government	515,974	475,366	-8%	448,430	-6%	450,165	0%	405,980	-10%	438,211
H Hotel	999,116	1,008,087	1%	1,004,525	0%	989,723	-1%	1,079,919	9%	1,030,530
G Golf	6,850	6,770	-1%	5,252	-22%	2,741	-48%	2,793	2%	6,263
A Agriculture	67,376	78,628	17%	69,482	-12%	81,127	17%	90,803	12%	69,812
I Irrigation	10,385	11,351	9%	10,143	-11%	8,504	-16%	7,896	-7%	6,245
<b>GRAND TOTAL</b>	<b>6,036,620</b>	<b>6,033,960</b>	<b>0%</b>	<b>5,711,790</b>	<b>-5%</b>	<b>5,758,590</b>	<b>1%</b>	<b>5,855,091</b>	<b>2%</b>	<b>5,951,795</b>





**GUAM WATERWORKS AUTHORITY**

*"Better Water, Better Lives."*

Gloria B. Nelson Public Service Building | 688 Route 15 | Mangilao, Guam 96913

Tel: (671) 300-6846

## **Issues for Decision**

### **Resolution No. 17- FY2020**

Relative to Adopting a Debt Service Coverage Ratio Target of 1.50x and a Working Capital Reserve of 120 Days of Operating and Maintenance Expense

#### **What is the project's objective and is it necessary and urgent?**

The objective of this resolution is to align CCU policy on debt service coverage ratio to GWA's long term financial planning strategy as outlined in the CCU-adopted *2018 Water Resources Master Plan*, and revise existing policy on CCU authorized cash reserves to allow for sufficient days of operating and maintenance expenses in line with sound financial management.

The proposed policy is necessary and urgent as GWA's financial advisors believe GWA's position in the financial markets and credit ratings would benefit from having this policy approved prior to going to the bond market, thereby eliminating confusion regarding DSCR calculations during Rating Agency and investor presentations currently planned as early as mid-April.

As part of PUC Docket Number 19-08, Petition for Approval of GWA's Third Five-Year Financial Plan proceedings, on January 17, 2020, GWA and Georgetown Consulting Group, Inc. (GCG), the Public Utilities Commission's (PUC) consultant (hereinafter both jointly referred to as the "Parties") signed a stipulation which contained the following statement:

*II. 4. Policy changes – The Parties will use best efforts to secure revisions to CCU and PUC policies related to minimum debt service coverage levels:*

- a. Revision of the CCU policy (adopted by Resolution No. 21-FY 2014) that calls for funding of a Working Capital and Debt Service Reserve that "serves to establish a Cash Reserve for supplementing Net Revenues for the sole purpose of meeting the PUC's currently established ADSCR [Aggregate Debt Service Coverage Ratio] requirement that Net Revenues shall be 175% or 1.75 times annual debt service." The revision would provide for meeting of a modified PUC minimum ADSCR target based on a calculation consistent with GWA's indenture (and common municipal finance practice) that does not supplement Net Revenues with such reserves.*
- b. Revision of the PUC's order (Regulatory Review of GWA Interim Financial Plan Under Federal Court Order in Civil Case 02-35 - Docket 04-01: FY 2005 Rate Order) that a minimum 1.75x coverage ratio is established for purposes of setting just and reasonable rates for GWA (Paragraph 8, p. 5).*
- c. The Parties to this stipulation agree to support the approval of both policy changes inclusive of a minimum 1.40x debt service coverage ratio. It is further recommended that as part of CCU and PUC's consideration of alternative debt financing instruments, the PUC debt service coverage policy be reevaluated based on references to credit rating*

*agency medians of comparable and favorably rated debt issuers and consideration of customer affordability of utility services.*

On February 27, 2020, the Public Commission on Utilities approved GWA Docket 19-08 FY20 Rate Decision which included in the Ordering Provisions the following provisions:

16. *Both GWA and GCG will support policy changes that create one standard for debt service coverage at 1.4X debt service coverage.*
17. *The Parties shall use best efforts to review the CCU policy (Resolution No. 21-FY2014) that establishes a cash reserve for purposes of meeting PUC's current Aggregate Debt Service Coverage Ratio of 1.75x. Such revision will mean that net revenues are not supplemented with cash reserves.*
18. *The Parties shall use best efforts to revise and clarify the PUC Order, Docket 04-01, FY 2005 Rate Order, that establishes a minimum 1.75x coverage ratio for setting just and reasonable rates.*

While GWA recognizes the merit of the PUC's prior order mandating a minimum 1.75 coverage ratio, it believes the adoption of a minimum Debt Service Coverage Ratio of 1.50x consistent with long-term financial planning objectives to be reasonable, necessary and in the public interest at this time so that the Authority may develop, justify and propose reasonable rates to sustain responsible operation and maintenance, and implement its capital improvement program.

GWA notes that the Parties' Stipulation provides:

*"The Parties to this stipulation agree to support the approval of both policy changes inclusive of a minimum 1.40x debt service coverage ratio. It is further recommended that as part of CCU and PUC's consideration of alternative debt financing instruments, the PUC debt service coverage policy be reevaluated based on references to credit rating agency medians of comparable and favorably rated debt issuers and consideration of customer affordability of utility services." (Parties' Stipulation, Docket 19-08, at II.4.(c) p. 8)*

The prospective review of capital financing options may suggest modification of the stipulated 1.40x debt service coverage ratio, thus the Resolution calls for reevaluation of the DSCR upon completion of required reviews and studies prior to FY2022.

GWA also recommends that the balance of the Reserve for Working Capital be no less than 120 days of Operating and Maintenance Expense, as defined in the GWA Revenue Bond Indenture. This will allow the Authority to have liquidity to pay for necessary operating and maintenance expenses should conditions require. Further, it is recommended that the Working Capital Reserve for Debt Services be dissolved and its balances be transferred to the Working Capital Reserve

**Where is the location?**

Not applicable.

**How much will it cost?**

This policy change will not increase costs for GWA but will make more funds available for use for GWA operations or internally funded CIP.

**When will it be completed?**

Upon adoption.

**What is the funding source?**

The funds for the Reserve will come existing Reserve balances; any additional amounts (if needed) will come from Operating Revenues.

**The RFP/BID responses (if applicable):**

Not applicable.



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**GWA RESOLUTION NO. 17-FY2020**

**RELATIVE TO ADOPTING A DEBT SERVICE COVERAGE TARGET OF 1.50 AND A  
WORKING CAPITAL RESERVE OF 120 DAYS OF OPERATING AND  
MAINTENANCE EXPENSE**

**WHEREAS**, under 12 G.C.A. §14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority (“GWA”); and

**WHEREAS**, the Guam Waterworks Authority is a Guam Public Corporation established and existing under the laws of Guam; and

**WHEREAS**, in 2014 the CCU adopted Resolution 21-FY2014 which established certain unrestricted cash reserves and set forth a policy of using such reserves to augment GWA’s net revenues for the purposes of calculating a Debt Service Coverage Ratio (DSCR) to comply with existing PUC policy of achieving coverage of 1.75x; and

**WHEREAS**, GWA’s long term financial plan, as presented in Volume 1, Section 12 Financial Planning, of the *2018 Water Resources Master Plan* as approved and adopted by the CCU, sets forth certain financial planning targets and states, “*For master planning purposes, these targets include ensuring that traditionally calculated debt service coverage meets or exceeds a target of 1.50x, conservatively above GWA’s covenanted requirements of 1.25x*”; and

**WHEREAS**, as part of Docket Number 19-08, Public Utilities Commission (PUC) proceedings on the Petition for Approval of GWA’s Third Five-Year Financial Plan, on January 17, 2020, GWA and Georgetown Consulting Group, Inc. (GCG), the PUC’s consultant, signed a stipulation in which the parties agreed to support the approval of a policy change to adopt a minimum 1.40x debt service coverage ratio based on a calculation consistent with GWA’s indenture (and common municipal finance practice) that does not supplement Net Revenues with reserves; and

**WHEREAS**, On February 27, 2020, the PUC approved GWA Docket 19-08 FY2020 Rate Decision which included in the Ordering Provisions the following:

16. Both GWA and GCG will support policy changes that create one standard for debt service coverage at 1.40x...,

17. The Parties shall use best efforts to review the CCU policy (Resolution No. 21-FY2014) that establishes a cash reserve for purposes of meeting PUC's current Aggregate Debt Service Coverage Ratio of 1.75x. Such revision will mean that net revenues are not supplemented with cash reserves

18. The Parties will also use best efforts to revise and clarify the PUC Order, Docket 04-01, FY2005 Rate Order, that establishes a minimum 1.75x coverage ratio for setting just and reasonable rates; and

**WHEREAS**, as part of GWA's petition for approval of the sale Series 2020 Bonds, it has provided a draft Order to the PUC that, if adopted, will allow the PUC to reset the Policy and for the immediate Bond offering, require Guam Waterworks Authority's minimum Debt Service Coverage Ratio be 1.40x on an interim basis; and

**WHEREAS**, the CCU recognizes the merit of the PUC's ordering provisions in GWA Docket 19-08 promoting adoption of a 1.40 minimum coverage ratio, and that it would be best for GWA to align its DSCR with adopted long term strategic financial planning targets; and

**WHEREAS**, the CCU also believes the adoption of a minimum Debt Service Coverage Ratio of 1.50x on an interim basis will benefit GWA during the rating process which will result in lower interest rates for the Bond issuance and is reasonable, necessary and in the public interest at this time allowing the Authority to maintain just and reasonable rates; and

**WHEREAS**, the prospective review of capital financing options and policy reevaluation to be undertaken as required by the PUC's ordering provisions in GWA Docket 19-08 may suggest upward adjustments to the stipulated PUC 1.40x debt service coverage ratio; and

**WHEREAS**, the CCU recognizes that sound financial and risk management entail the preservation of adequate financial reserves to cover cash flow variations from short term volatility in revenues and expenses and unanticipated and unforeseeable expenses; and

**WHEREAS**, the CCU also recognizes that financial reserves are one of the major components that bond rating agencies study in determining the creditworthiness of an issuer which in turn can impact interest rates on debt issuance; and

**WHEREAS**, the CCU also recognizes that reserves, when properly established and applied can be used as a tool for mitigating water rate fluctuations influenced primarily by (1) volatile and temporary financial adversities; and/or (2) unexpected capital or operational expenses; and

**WHEREAS**, the CCU also recognizes it would be prudent to adopt a policy setting the Working Capital Reserves at 120 days of operating and maintenance expense.

**NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The adoption of a policy setting a target minimum debt service coverage ratio of 1.50X, calculated on the same basis as called for in GWA Revenue Bond Indenture.
3. Upon completion of GWA's review and evaluation of capital finance options, this policy will be reevaluated and may be revised..
4. The CCU authorizes the dissolution of the Working Capital Reserves for Debt Services and the transfer of cash balances into the Working Capital Reserve.
5. The adoption of a a policy setting minimum balances for the Working Capital Reserve at 120 days of Operations and Maintenance Expenses. The Chief Financial Officer shall have the authority to draw up to \$500,000, subject to the approval of General Manager, for Operations and Maintenance Expenses as defined pursuant to the GWA Revenue Bond Indenture. For draws greater than \$500,000, prior approval from the CCU is required.
6. The Reserve may be withdrawn and used to the extent necessary to pay for operational and maintenance expenses if cash flow is insufficient for such purpose.
7. A monthly report of the DSC ratio and the reserve level will be provided to the CCU. This report will include reserve level required and date and reason for any withdrawals from the reserve.
8. This Resolution repeals and replaces CCU Resolution 21-FY2014.

**RESOLVED**, that the Chairman certified, and the Board Secretary attests to the adoption of this Resolution.

**DULY AND REGULARLY ADOPTED**, this 24<sup>th</sup> day of March 2020.

Certified by:

Attested by:

\_\_\_\_\_  
**JOSEPH T. DUENAS**  
Chairperson

\_\_\_\_\_  
**MICHAEL T. LIMTIACO**  
Secretary

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**SECRETARY'S CERTIFICATE**

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSTENTIONS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

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Tel: (671) 300-6846

### **Issues for Decision**

#### **Resolution No. 18-FY2020**

Relative to Approving the Charge-off of Guam Waterworks Authority Receivables Deemed Uncollectible

#### **What is the project's objective and is it necessary and urgent?**

It is good accounting practice to regularly review accounts receivable to ensure the Allowance for Doubtful Accounts is appropriate and to write off accounts that are deemed uncollectible. If uncollectible receivables are not written off regularly, eg annually, Accounts Receivable and the related Allowance become overstated.

#### **Where is the location?**

Not applicable

#### **How much will it cost?**

At least annually, the Allowance for Doubtful Accounts is adjusted to reflect the receivables that are likely to be uncollectible. This transaction affects income as Bad Debt expense is recognized.

As receivables are written off, the Allowance is adjusted. The write off of receivables will not impact income as the amounts were expensed as the Allowance was adjusted, i.e., the write off will reduce the Accounts Receivable and the Allowance for Doubtful Accounts balances on the Statement of Net Position (aka Balance Sheet).

Note, if these receivables are eventually collected, the amounts will be recognized as Miscellaneous Income.

#### **When will it be completed?**

Uncollectable accounts will be reviewed on an annual basis and written off as deemed appropriate.

#### **What is the funding source?**

Not applicable

#### **The RFP/BID responses (if applicable):**

Not applicable.



**CONSOLIDATED COMMISSION ON UTILITIES**  
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**GWA RESOLUTION NO. 18-FY2020**

**RELATIVE TO APPROVING THE CHARGE-OFF OF GUAM WATERWORKS  
AUTHORITY RECEIVABLES DEEMED UNCOLLECTIBLE**

**WHEREAS**, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority (“GWA”); and

**WHEREAS**, the Guam Waterworks Authority is a Guam Public Corporation established and existing under the laws of Guam; and

**WHEREAS**, GWA Customer Service works with customers to clear past due accounts which may include a payment plan and, as a last resort, service disconnection; and

**WHEREAS**, GWA refers inactive accounts to collection agencies with various degrees of successful collections; and

**WHEREAS**, GWA Human Resources works with employees to clear amounts owed for overpayments and lost or damaged equipment; and

**WHEREAS**, despite other efforts by GWA to collect these outstanding balances, the age of certain receivables exceeds the statute of limitations; and

**WHEREAS**, GWA Finance regularly reviews accounts receivable and recognizes that not all accounts will be collectible through the Allowance of Doubtful Accounts; and

**WHEREAS**, it is good accounting practice to regularly write off accounts that are deemed uncollectible.

**NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.

2. The CCU finds that it is good management practice to use all tools at management's disposal to collect on all past due accounts, to recognize a portion of its receivables will not be collected, and to regularly write-off uncollectable accounts.
3. The CCU authorizes the General Manager, after careful review and on the recommendation of the Chief Financial Officer, to charge off uncollectible receivables for which reasonable efforts were made to collect and for which the statute of limitations has been exceeded.
4. A report of the write-offs for the fiscal year will be provided to the Board no later than the regularly scheduled CCU meeting in November.

**RESOLVED**, that the Chairman certified, and the Board Secretary attests to the adoption of this Resolution.

**DULY AND REGULARLY ADOPTED**, this 24<sup>th</sup> day of March 2020.

Certified by:

Attested by:

\_\_\_\_\_  
**JOSEPH T. DUENAS**  
Chairperson

\_\_\_\_\_  
**MICHAEL T. LIMTIACO**  
Secretary

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**SECRETARY'S CERTIFICATE**

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSTENTIONS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

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Tel: (671) 300-6846

## **Issues for Decision**

### **Resolution No. 19-FY2020**

Relative to Approving Contract Amount Increase and Authorizing Change Orders for the Construction Management Services Contract for the GWA SCADA System for Water and Wastewater Facilities Phase A-1 Project

#### **What is the project's objective and is it necessary and urgent?**

GWA is developing and installing a SCADA System to monitor the operations of its water and wastewater systems, and to promptly alert operators when a fault or alarm condition occurs. This project primarily focuses on installing industrial controls, field instrumentation, and communications equipment to enable connectivity between 14 GWA assets with the Central SCADA Server located in Fadian through the use of GPA's TropOS wireless mesh network to enable continuous monitoring of these assets.

As of the December 31, 2019, project completion deadline, G4S, the contractor, has not achieved substantial completion. GWA is assessing liquidated damages and special damages on the contractor for damages incurred by GWA, including on-going construction management services. GWA intends to use the money recovered from the contractor, by imposing set-off against payment to G4S, to fund the change orders for extending CM services as needed going forward.

GWA is seeking CCU approval because further extension to CM services would cause the total CM contract amount to exceed one million dollars.

#### **Where is the location?**

Well A-01, Well A-03, Well A-05, Well A-06, Well A-23, Well A-25, Well A-29, Well A-31, Well A-32, Well M-17B, Well M-20A, Hagatna Wastewater Treatment Plant, Fujita Sewer Pump Station, and Route 16 Sewer Pump Station.

#### **How much will it cost?**

The current contract amount is \$997,464.00, which includes:

- \$515,631.00 Original Contract
- \$383,589.00 Change Order No. 01 (GWA Resolution 28-FY2019)
- \$51,563.00 Change Order No. 02, extension for January 2020
- \$46,681.00 Change Order No. 03, extension for February 2020

This CM service is continuing on a time and materials basis. GWA seeks CCU approval for an increase in contract amount by up to \$177,000.00. The \$177,000.00 would cover

at least 3 months (March, April, and May) of CM services extension due to further delay by G4S. The estimated monthly cost is based on actual CM time and material charges for January 2020 in the amount of approximately \$59,000.00.

It is the intent that this resolution would approve the increasing of the total authorized contract amount to a maximum of \$1,174,464.00 (\$997,464.00 + \$177,000.00) and also would authorize GWA management to execute change orders as needed up to the maximum authorized contract amount.

**When will it be completed?**

In violation of contract terms, G4S has not been providing construction schedule updates; but based on observation by GWA project management team, contractor ought to be able to achieve final completion by May 31, 2020.

**What is the funding source?**

The funding source for the project is bond funds from CIP EE 09-09, SCADA Improvement – Phase 4.

The funding source for the CM service extensions due to contractor delay would be from imposing set-off against payment to G4S as special damages.

**The RFP/BID responses (if applicable):**

N/A



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**GWA RESOLUTION NO. 19-FY2020**

**RELATIVE TO APPROVING CONTRACT AMOUNT INCREASE AND  
AUTHORIZING CHANGE ORDERS FOR THE CONSTRUCTION MANAGEMENT  
SERVICES CONTRACT FOR THE GWA SCADA SYSTEM FOR WATER AND  
WASTEWATER FACILITIES PHASE A-1 PROJECT**

**WHEREAS**, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority (“GWA”); and

**WHEREAS**, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

**WHEREAS**, on June 19, 2018, GWA entered into a contract with G4S Security Systems (Guam), Inc. (“G4S”) to provide Construction Services for the GWA SCADA System for Water and Wastewater Facilities Phase A-1 project which is linked to the Court Order Paragraph 28 wherein the completion of the SCADA Project will enhance GWA’s ability to “monitor flow, pressure, tank levels and chlorine throughout the services area...” in accordance with GWA Resolution 28-FY2018 adopted by the CCU on May 22, 2018; and

**WHEREAS**, on August 24, 2018, GWA entered into a contract with GHD, Inc. to provide Construction Management (“CM”) Services for the aforementioned project in the amount of Five Hundred Fifteen Thousand Six Hundred Thirty-One Dollars (\$515,631.00), which is within GWA General Manager’s delegated contract approval authority of One Million Dollars (\$1,000,000.00) in accordance with GWA Resolution 09-FY2020 adopted by the CCU on November 26, 2020; and

**WHEREAS**, on June 14, 2019, Change Order No. 01 to the CM contract was executed in the amount of Three Hundred Eighty Three Thousand Five Hundred Eighty-Nine Dollars

(\$383,589.00) funded by a deductive change order to the construction contract as part of the negotiated conditions for extending the final completion date to December 31, 2019 due to G4S's performance issues in accordance with GWA Resolution 28-FY2019 adopted by the CCU on May 28, 2019; and

**WHEREAS**, on February 7, 2020, Change Order No. 02 to the CM contract was executed in the amount of Fifty-One Thousand Five Hundred Sixty-Three Dollars (\$51,563.00) for extending CM services due to continued delay by G4S, funded by imposing set-off against payment to G4S as special damages; and

**WHEREAS**, Change Order No. 03 to the CM contract in the amount of Forty-Six Thousand Six Hundred Eighty-One Dollars (\$46,681.00) is currently being reviewed and processed for extending CM services due to continued delay by G4S, funded by imposing set-off against payment to G4S as special damages; and

**WHEREAS**, the total contract amount, which includes the Original Contract and Change Orders No. 01 through No. 03, is Nine Hundred Ninety-Seven Thousand Four Hundred Sixty-Four Dollars (\$997,464.00), which is within GWA General Manager's delegated contract approval authority of One Million Dollars (\$1,000,000.00) in accordance with GWA Resolution 09-FY2020 adopted by the CCU on November 26, 2019; and

**WHEREAS**, extension to the CM services contract on a time and materials basis is necessary because G4S has not achieved substantial completion for this project; and

**WHEREAS**, based on GHD's billing for January 2020, Fifty-Nine Thousand Dollars (\$59,000.00) per month is established as an approximate amount for monthly time and materials CM charges; and

**WHEREAS**, GWA Management seeks CCU authorization to execute change orders as needed, in addition to Change Orders No. 01 through No. 03, up to One Hundred Seventy-Seven Thousand Dollars (\$177,000.00) intended for use to extend CM services for the months of March, April and May 2020 or as needed; and



**WHEREAS**, GWA Management seeks total funding authorization of One Million One Hundred Seventy-Four Thousand Four Hundred Sixty-Four Dollars (\$1,174,464.00) for use in this CM services contract with GHD; and

**WHEREAS**, GWA Management seeks CCU approval to inform the Guam Public Utilities Commission (“PUC”) of the project intent given its relation to the Court Order Paragraph 28, and total contract amount of One Million One Hundred Seventy-Four Thousand Four Hundred Sixty-Four Dollars (\$1,174,464.00); and

**WHEREAS**, the funding source will be bond funds from CIP EE 09-09, SCADA Improvement – Phase 4, and extensions to CM services due to continued delay by G4S will be funded by imposing set-off against payment to G4S as special damages; and

**NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU hereby authorizes the management of GWA to execute Change Orders as needed to the CM services contract with GHD, in addition to Change Orders No. 01 through No. 03, up to the amount of One Hundred Seventy-Seven Thousand Dollars (\$177,000.00).
3. The CCU hereby authorizes the requested total maximum funding amount of One Million One Hundred Seventy-Four Thousand Four Hundred Sixty-Four Dollars (\$1,174,464.00) funded by CIP EE 09-09, SCADA Improvement – Phase 4, with extensions to CM services due to continued delay by G4s funded by imposing set-off against payment to G4S as special damages.
4. The CCU hereby authorizes the management of GWA to inform the PUC of the project intent given its relation to the Court Order Paragraph 28 and the total contract amount of One Million One Hundred Seventy-Four Thousand Four Hundred Sixty-Four Dollars (\$1,174,464.00).

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1       **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption  
2 of this Resolution.

3  
4       **DULY AND REGULARLY ADOPTED**, this 24<sup>th</sup> day of March, 2020.

5       Certified by:

Attested by:

6  
7  
8       \_\_\_\_\_  
9       **JOSEPH T. DUENAS**  
Chairperson

\_\_\_\_\_  
**MICHAEL T. LIMTIACO**  
Secretary

10  
11                   **SECRETARY'S CERTIFICATE**

12  
13       I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as  
14 evidenced by my signature above do hereby certify as follows:

15       The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular  
16 meeting by the members of the Guam Consolidated Commission on Utilities, duly and  
17 legally held at a place properly noticed and advertised at which meeting a quorum was  
18 present and the members who were present voted as follows:

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20       AYES: \_\_\_\_\_

21       NAYS: \_\_\_\_\_

22       ABSTENTIONS: \_\_\_\_\_

23       ABSENT: \_\_\_\_\_

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Tel: (671) 300-6846

## **Issues for Decision**

### **Resolution No. 20- FY2020**

Relative to Approval of Change Order No. 7 for the Route 1 Asan-Adelup-Hagatna" Sewer Design Contract with HDR Inc.

#### **What is the project's objective and is it necessary and urgent?**

The objective of this project is to improve the sewer collection system, which included repairing and/or replacing sewer main, renovating manholes and rehabilitating existing sewer by CIPP liner along Route 1 in the villages of Asan and Adelup. These sewer infrastructure elements have been identified by GWA, through an SSES investigation, to be in serious need of rehabilitation and repair. Successful completion of this project will result in proper maintenance and operation of the sewer collection system and USEPA agrees that efforts to rehabilitate, repair or replace the sewer line are necessary.

Change Order No. 7 is necessary to provide additional construction services such as consultation with the designer of record and field inspection by the designer of record of construction, and additionally, in particular, archaeological monitoring necessary to meet SHPO and DPW requirements during sewer installation across Rt. 1 during night hours. Furthermore, GWA is moving forward with the segment of the sewer renovation project from Adelup to Hagatna. For this section, the design has been completed under this contract previously but some changes to the contract provisions are desired to address lessons learned under the current construction contract for the Asan to Adelup section. Some contract modifications and clarification in the drawings for advertisement of a construction contract for the Adelup to Hagatna section will improve the contract provisions and result in a better contract package for both GWA and prospective bidders.

#### **Where is the location?**

This project is located along Route 1, from Asan "War in the Pacific" National Historic Park to the Agana Main Pump Station. Construction activities will be limited to the government easements of the sewer infrastructure elements.

#### **How much will it cost?**

The total cost of Change Order No. 7 is Two Hundred Fourteen Thousand Three Hundred Forty-Five Dollars (\$214,345.00).

GWA Management seeks CCU approval of HDR's proposal for additional construction support services and contract package and bidding services for the additional funding amount of Two Hundred Fourteen Thousand Three Hundred Forty-Five Dollars (\$214,345.00), bringing the total authorized funding amount to One Million Nine Hundred Ninety-Four Thousand Five Hundred Fifty-Five Dollars (\$1,994,555.00).

**When will it be completed?**

The current construction work associated with Asan to Adelup section, supported by this contract, is scheduled to be completed July 31, 2020. The contract package services associated with the Adelup to Hagatna segment (referred to as Phase 2 in HDR's proposal) is estimated to be completed by December 2021.

**What is the funding source?**

The funding for this project will be from USEPA SRF Grant Funds and, if necessary, GWA Bond Funds with a maximum project budget of One Million Nine Hundred Ninety-Four Thousand Five Hundred Fifty-Five Dollars (\$1,994,555.00).



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**GWA RESOLUTION NO. 20-FY2020**

**RELATIVE TO APPROVAL OF CHANGE ORDER NO. 7 FOR THE ROUTE 1 “ASAN-ADELUP-HAGATNA” SEWER DESIGN CONTRACT**

**WHEREAS**, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority (“GWA”); and

**WHEREAS**, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

**WHEREAS**, GWA has received a grant from USEPA under the State Revolving Fund program to improve the sewer collection system, which included over 13,300 linear feet of gravity sewer line along Route 1, from Asan “War in the Pacific” National Historic Park to the Agana Main Pump Station; and

**WHEREAS**, the gravity sewer line indicated is deteriorating and has experienced collapses in a number of locations causing SSOs and surcharging upstream; and

**WHEREAS**, GWA awarded a contract for the Engineering services in the amount of One Million Three Hundred Twenty Seven Thousand Four Hundred Forty Nine Dollars (\$1,327,449.00) with design service options related to additional Field Investigation Services and Construction Engineering Services in the amount of Two Hundred Ninety Five Thousand One Hundred Eighty Nine Dollars (\$295,189.00) should this service option be needed (see EXHIBIT A – Original Fee Proposal) which was approved via CCU Resolution 02-FY2016; and

**WHEREAS**, on May 12, 2017, GWA advertised the Invitation to Bid (IFB-06-ENG-2017) for the Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement

soliciting bid proposals from experienced and responsive bidders to repair and/or replace segments of gravity sewer lines and manholes in the villages of Asan and Hagatna, but ultimately received no responsive and responsible bids; and

**WHEREAS**, on October 31, 2017, GWA advertised the Invitation to Re-Bid (IFB-11-ENG-2017) for the Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement soliciting bid proposals from experienced and responsive bidders to repair and/or replace segments of gravity sewer lines and manholes in the villages of Asan and Hagatna, but again received no bids; and

**WHEREAS**, following the Invitation to Re-Bid, GWA decided to reduce the scope of the construction project to obtain more interest in the project and to suit the available SRF funding originally allocated to the project and directed the Engineer, HDR (“Engineer”), to develop a set of construction plans and specification to cover the work required only from Asan to Adelup; and

**WHEREAS**, on May 4, 2018, GWA advertised the Invitation to Re-bid (IFB-05-ENG-2018) for the Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement soliciting bid proposals from experienced and responsive bidders to repair and/or replace segments of gravity sewer lines and manholes from Asan to Adelup; and

**WHEREAS**, following review and approval by GWA and the Engineer, GWA entered into a contract with Infratech International, LLC (“Infratech”) for the Asan to Adelup Segment in accordance with CCU Resolution 44-FY2018; and

**WHEREAS**, GWA has previously negotiated Change Orders with the Engineer that 1) provide for perform engineering services for the Asan sewer break repair; 2) provide for perform construction management (CM) services for the Asan sewer break repair and geotechnical survey permit fees; 3) provide for funding for permitting and bidding coordination, additional CM services associated with the Asan sewer break, and extending the contract time by 62 days; 4) provided for additional funding for CM services and extending the contract time by 60 days associated with the Asan sewer break; 5) provided for extending the contract time by 827 days

1 due to contract advertisement and award delays; and 6) adjusting the contract budget to raise the  
2 construction services item amount.

3  
4 **WHEREAS**, GWA has now decided to proceed with the remaining portion of the  
5 originally planned scope for the section from Adelup to Hagatna (referred to as Phase 2 in  
6 HDR's proposal), and has instructed the Engineer to provide a scope and fee proposal to cover  
7 final completion of the Adelup-Hagatna Section, provide engineers services during the bidding  
8 stage and to provide engineering services throughout the construction phase; and

9  
10 **WHEREAS**, the scope of services for the Engineer for the Asan to Adelup segment has  
11 also increased due to extensions to the original construction contract completion date and due to  
12 the Department of Public Works restrictions on the construction hours which requires some work  
13 to be completed at night; and

14  
15 **WHEREAS**, GWA negotiated Change Order No. 7 (Exhibit B) to extend HDR's  
16 contract for completion of the Asan-Adelup segment and to add services to complete the Adelup-  
17 Hagatna Segment, and GWA Management seeks approval of the Change Order fee proposal  
18 from HDR in the amount of Two Hundred Fourteen Thousand Three Hundred Forty-Five  
19 Dollars (\$214,345.00); and

20  
21 **WHEREAS**, the negotiated Change Order No. 7 (Exhibit B) extends the estimated time  
22 to the construction completion of Asan-Adelup segment to July 2020, and allows for completion  
23 of the Adelup-Hagatna segment 12 months after award of the Adelup-Hagatna construction  
24 contract and increases HDR's total contract value to One Million Nine Hundred Ninety-Four  
25 Thousand Five Hundred Fifty-Five Dollars (\$1,994,555.00); and

26  
27 **WHEREAS**, funding for this project will be from the USEPA State Revolving Fund and,  
28 if necessary, GWA Bond funds with an estimated project budget of One Million Nine Hundred  
29 Ninety-Four Thousand Five Hundred Fifty-Five Dollars (\$1,994,555.00); and

30 //

31 //  
32

1       **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities  
2 does hereby approve the following:

- 3           1. The recitals set forth above hereby constitute the findings of the CCU.  
4           2. The CCU hereby approves the funding increase for additional construction  
5 support services for the current Asan to Adelup construction and for revisions to  
6 the drawings and contract provisions for the Adelup to Hagatna section (noted as  
7 Phase 2) and, additionally, for construction support services for the construction  
8 of facilities from Adelup to Hagatna for the additional funding amount of Two  
9 Hundred Fourteen Thousand Three Hundred Forty-Five Dollars (\$214,345.00).  
10          3. The CCU hereby further approves the total funding authorization for the contract  
11 with HDR, Inc to an amount of One Million Nine Hundred Ninety-Four Thousand  
12 Five Hundred Fifty-Five Dollars (\$1,994,555.00).

13  
14       **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption  
15 of this Resolution.

16  
17       **DULY AND REGULARLY ADOPTED**, this 24<sup>th</sup> day of March, 2020.

18  
19       Certified by:

Attested by:

20  
21       \_\_\_\_\_  
22       **JOSEPH T. DUENAS**  
23       Chairperson

\_\_\_\_\_  
24       **MICHAEL T. LIMTIACO**  
25       Secretary

26       //

27       //

28       //

29       //  
30  
31  
32



**SECRETARY'S CERTIFICATE**

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSTENTIONS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

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# EXHIBIT A



October 16, 2015

Mr. Thomas F. Cruz, PE  
Chief Engineer  
The Guam Waterworks Authority  
Engineering Division  
Gloria B. Nelson Public Service Building  
688 Rt. 15  
Mangilao, Guam 96913

SUBJECT: Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement  
GWA Project No. S15-002-EPA

Dear Mr. Cruz,

Thank you for selecting HDR Engineering, Inc. (HDR), to provide professional services for the subject project. In response to the Scope of Work attached to the Request for Proposal (RFP) and the scoping meeting held on July 24, 2015 with Brown and Caldwell, HDR and its subconsultants are submitting this proposal to accomplish the work as outlined herein for approximately 13,300 linear feet of gravity sewer mains.

## **General Tasks and Approach**

The general tasks proposed for this project are as follows:

- |        |                                       |
|--------|---------------------------------------|
| Task 1 | Project Management                    |
| Task 2 | Data Research and Agency Coordination |
| Task 3 | Field Investigations                  |
| Task 4 | Hydraulic Analysis                    |
| Task 5 | Preliminary Engineering Report        |
| Task 6 | Design Documents                      |
| Task 7 | Bidding Process                       |
| Task 8 | Construction Services                 |

[hdrinc.com](http://hdrinc.com)

134 W. Soledad Ave., Suite 404, Hagatna, GU 96910  
T 671.989.5558 F 671.989.5557

The requested scope of services and preparation of this proposal were based on a preliminary look at the existing system, our inherent knowledge of the system, and initial conversations with the Guam Waterworks Authority (GWA) operations and maintenance staff on the condition of the sewer lines in the project area. Both the scope of the design, the anticipated construction schedule and the associated fees were based upon the following assumptions:

- The majority of the sewer mains in the Asan reach will be open cut replacement
- The majority of the sewer mains in Adelup and Hagatna reach will be rehabilitated in lieu of open cut replacement.
- To accommodate delivering design documents in a timely manner to provide sufficient time to construct the portion of the project being funded with SRF funds, the design documents will be delivered in two design packages. The first design package (Phase I), to be constructed with the SRF funds is proposed to be the design from manhole 1399Asan to manhole 17Asan or other mutually agreed up manhole. The second design package (Phase II) will include design from manhole 17Asan, or where Phase I ends, and extends to the Agana pump station wet well.

The actual scope of the design will be adjusted, as required, and the associated fees may be modified to reflect significant changes in the scope if the actual field conditions and resultant design differ from the assumptions listed above.

The requested services to be conducted in Tasks 1-7 and the Archaeological Fieldwork Data Analysis and Report to be conducted in Task 8, we are presenting to be performed on a lump sum basis, except for the following services in Task 3, which will be performed based upon conditions found in the field:

- Additional manhole inspections
- Miscellaneous field work, which includes smoke testing and dye testing
- Sewer pipe cleaning
- Archaeological monitoring during geotechnical drilling

HDR is proposing that these specific services listed above from Task 3, in addition to the services found in Task 8, be provided on a Time and Materials (T&M) basis with a Not to Exceed (NTE) fee.

Task 8 was based upon a preliminary construction schedule of twelve (12) months and was based upon the assumptions mentioned earlier, in addition to the following:

- The existing capacity of the sewer main is sufficient for the future peak flows.
- Time is for construction of only the design to be included in the Phase I design package.

### **Scope of Work and Detailed Task Descriptions**

The following describes a detailed scope of work proposed for this project:

#### **Task 1 - Project Management**

- a) General Project Management – This task will involve general project management of the project from Notice to Proceed (NTP) through the end of Task 6 as presented below and is anticipated to last approximately eight (8) months only. This will also include all subconsultant coordination during this same time period.
- b) Project Management Plan – In accordance with GWA's Program Management Manual, a Project Management Plan will be developed and will include the following: Project description, project scope (from contract), project team including subconsultants, and the anticipated project work plan with schedule.
- c) The project schedule will be created in Microsoft Project and will outline the work plan with dates set for all critical milestones for the project. The schedule will be updated throughout the project and will be provided monthly at the bi-weekly meetings.
- d) Progress reports will be generated on a monthly basis and will be included with the monthly payment invoices.
- e) Bi-weekly progress meetings will be held with GWA Engineering personnel and GWA's PMO consultant at the GWA Engineering office, unless otherwise agreed upon, to provide updates on the status of the project.
- f) A kick-off meeting will be conducted within two (2) weeks of receipt of the NTP with GWA Engineering personnel, GWA Operations and Maintenance personnel, GWA's PMO and HDR. The meeting will outline the project goals, project timeline, to discuss pertinent items related to the project and provide a listing of requested items to be provided by GWA to HDR.
- g) Public notification will be coordinated with GWA's Public Information Officer to ensure that the public is aware of field activities which may impact the public (i.e. lane closures and smoke testing) as described in Task 3, below.

#### **Task 2 - Data Research and Agency Coordination**

- a) Research and review of the following items will be conducted for the gravity sewer main along the project reach in Asan from manhole 1399Asan to manhole 1398Asan and in Hagatna from manhole 13Asan to manhole 324Haga, including the Asan and Hagatna pump stations and any ancillary facilities:
  - Existing As-built Drawings
  - Maintenance and Repair History
  - Manhole and Pipeline Inspection
  - Pump Station Operation Data

- Existing Flow Monitoring Data
  - Existing Sewer Model
  - Future Flow Estimates
  - Existing and Proposed Land Use Data
- b) Existing pump station operational data and flow data for the Port Authority of Guam and the Piti pump stations to be utilized for the hydraulic model will be researched and reviewed.
- c) Interviews with GWA operations staff will be held to understand the system and to obtain any pertinent information that would be beneficial to the project.
- d) Initial coordination will be conducted with the following agencies to obtain pertinent information in relation to the project and their associated requirements, including permitting, to conduct work in and around their facilities or areas of interest:
- Department of Public Works (DPW) – Includes Building Permit office, Highway Encroachment Permit office and Highway Engineering Department.
  - Department of Land Management (DLM)
  - Guam Power Authority (GPA)
  - Guam Environmental Protection Agency (GEPA)
  - Guam Parks and Recreation
  - Guam Division of Aquatics and Wildlife Resources (DAWR)
  - United States National Park Service (NPS)
  - United States Army Corps of Engineers (USACE)
  - Asan Village Mayor's office
  - Hagatna Village Mayor's office
  - DZSP21
  - Guam Telephone Company (GTA)
  - Docomo Pacific
  - Tata Communications
  - Pacific Data Systems
  - IT&E
  - Verizon Business (CalPac)

### **Task 3 - Field Investigations**

- a) **Flow Monitoring** – Three (3) flow monitors will be installed along the gravity sewer main to record existing flows and establish their respective diurnal patterns. The flow monitoring data will be used to develop and calibrate the hydraulic model. Flow

monitoring data will be collected and posted to the ADS FlowView Portal and will be made available to GWA and the PMO to access for viewing, exporting or printing in tabular, hydrograph or scattergraph formats. Monitoring will be conducted for 60 days only. Monitoring will be conducted for 60 days only. If substantial rainfall and significant wet-weather flows do not occur within the 60 day period, GWA would have the option of extending the monitoring period at an additional cost.

- b) **Rainfall Monitoring** – One (1) rainfall monitoring station, including a tipping bucket and a data logger, will be installed in a secure location to capture rainfall data to correlate with the flow monitoring data. Monitoring will be conducted for 60 days only. If substantial rainfall and significant wet-weather flows do not occur within the 60 day period, GWA would have the option of extending the monitoring period at an additional cost.
- c) **Manhole Inspections** – This task will involve conducting inspections, reviewing the data, rating the manholes and determining what recommended rehabilitation or replacement would be needed to be included in Preliminary Engineering Report as outlined in the Task 5 description below. This task will be conducted on twenty four (24) manholes along the Asan reach, from manhole 1399Asan to manhole 1398Asan, and will include the following:
  - Inspections based on the National Association of Sewer Service Companies (NASSCO) Level 2 standards.
  - Observations will be reported on NASSCO Manhole Assessment Certification Program (MACP) forms for Level 2 inspections.
  - GPS coordinates will be collected for each manhole with a handheld GPS .
  - Digital photographs including area, upstream, downstream, the top and bottom of the manhole cover, downward view, the ring, rungs, and any visible defects from the surface will be provided.
  - Obtaining the DPW Highway Encroachment Permit.
  - Providing the necessary traffic control as approved through the DPW Highway Encroachment permit.
- d) **Additional Manhole Inspections** – This task will involve conducting up to six (6) additional manhole inspections, as needed, for any manholes that are not identified in the GIS system and are found in the field that are along the main sewer line. This task will also include reviewing the data, rating the manhole and determining what recommended rehabilitation or replacement would be needed to be included in the Preliminary Engineering Report as outlined in the Task 5 description below.

- e) **Sewer Line Cleaning** – This task will involve cleaning approximately 6,800 LF of sewer main lines to facilitate CCTV collection and is broken down according to the following:
- Cleaning the existing pipes from manhole 1399Asan to the Asan Pump Station wet well (approximately 4,510 LF).
  - Cleaning the existing pipes from manhole 13Asan to manhole 17Asan (approximately 1,100 LF).
  - Cleaning the existing pipes from manhole 348Asan to manhole 350CHaga (approximately 410 LF).
  - Cleaning the existing pipe from manhole 342Haga to manhole 343Haga (approximately 210 LF).
  - Cleaning of the existing pipes from manhole 326Haga to manhole 326AHaga (approximately 130 LF).
  - Cleaning the existing pipes from manhole 323Haga to the Agana Pump Station wet well (approximately 440 LF).
  - Payment for water at a location provided by GWA. GWA shall provide a meter.
  - Transport and disposal of sewage or debris at the Northern Wastewater Treatment Plant, including payment of \$25 per load.
  - Decanting water back into the sewer lines.
  - Providing the necessary traffic control as approved through the DPW Highway Encroachment permit.

If it is determined that the pipe is in danger of collapsing due to the cleaning work, the level of cleaning may not fully comply with PACP requirements. Cleaning may be limited to allow passage of the CCTV camera only. Repair of collapsed pipes and other conditions that may prevent passage of the CCTV camera is not included in this scope.

- f) **Closed Circuit Television (CCTV) Inspections** – This task will involve collecting CCTV inspections using NASSCO Pipeline Assessment Certification Program (PACP) standards on approximately 6,800 LF of sewer main and is broken down according to the following:
- Sewer main from manhole 1399Asan to the Asan Pump Station wet well (approximately 4,510 LF).
  - Sewer main from manhole 13Asan to manhole 17Asan (approximately 1,100 LF).
  - Sewer main from manhole 348Asan to manhole 350CHaga (approximately 410 LF).
  - Sewer main from manhole 342Haga to manhole 343Haga (approximately 210 LF).

- Sewer main from manhole 326Haga to manhole 326AHaga (approximately 130 LF).
  - Sewer main from manhole 323Haga to the Agana Pump Station wet well (approximately 440 LF).
  - Providing the necessary traffic control as approved through the DPW Highway Encroachment permit.
- g) **Miscellaneous Field Work** – This task includes any reconnaissance that will be needed as part of the field investigations that is outside of the flow monitoring, manhole inspections and CCTV inspections scopes and will also include the deployment of any necessary smoke testing or dye testing. It is currently unknown if the area within the stretch of the Route 1 gravity sewer line in front of the National Park Service's Asan Beach Unit has laterals connected to the Asan Beach Unit from when this area served as a Navy Camp, Hospital and Refugee Camp. This area could possibly have illicit connections allowing stormwater to enter the system, therefore smoke testing or dye testing will be deployed to confirm if these connections exist.
- h) **Topographical Survey** – A topographical survey will be conducted along the sewer main line from manhole 1399Asan to the Asan pump station and from the manhole 13Asan to the Hagatna pump station. The topographical survey will also include the following:
- Research of Route 1 (Marine Corps Drive) right of way documents and sewer line easements along the projects subject sewer main line from 1399Asan to the Asan Pump Station and from manhole 13Asan to the Hagatna Pump Station. This information will be required to be provided as part of the permitting process with DPW.
  - Establish horizontal and vertical control referenced from the 1993 Guam Geodetic Network (GGN93) grid.
  - Conduct topographical survey along the sewer main line which will include road pavement (2 lanes and center lane depending on location) and 20 feet swath from the edge of the pavement. Survey will include locating all visible utilities and other structures. Conduct 100 feet wide swath for all lines that cross the roadway perpendicular to the direction of travel.
  - Invert and/or top elevations of pipes will be collected for any visible storm drainage crossings, water lines in manhole vaults and or electrical/communication lines that cross the main sewer line.
  - Structure finished floor elevations and cleanout locations will be obtained for up to 14 structures located in areas that have had previous sewage backup spills and currently have backflow valves installed on the sewer laterals.
  - Survey to be provided in both a PDF and CAD format.
  - Obtaining the DPW Highway Encroachment Permit.



- Providing the necessary traffic control as approved through the DPW Highway Encroachment permit.
- i) **Geotechnical Survey** – A geotechnical investigation will be conducted to determine the conditions of the soil and to provide recommendations for both the design and construction of this project. The investigation will include the following:
- Exploration of subsurface conditions by eight (8) test borings drilled twenty (20) feet below the existing ground surface within the project site along Route 1 (Marine Corps Drive).
  - Laboratory testing on the samples obtained during the drilling explorations to provide pertinent soils data. Testing will include moisture and density determinations, sieve analyses, Atterberg Limits, Modified Proctor, laboratory California Bearing Ratio (CBR) tests and corrosivity tests.
  - Engineering analyses using the field and laboratory information will be conducted to provide design and construction recommendations, to include recommendations for pavement repairs.
  - Preparation of a written report summarizing the results of the findings.
  - DPW Highway Encroachment Permit Fees
  - Providing the necessary traffic control as approved through the DPW Highway Encroachment permit.
  - DZSP21 Utility Clearances and fees.
  - GEPA Test Boring Application and fee.

***The geotechnical survey scope is based upon the following conditions:***

- Standby time for any archaeological recovery during time of field investigations is included in the proposal fee only up to 24 hours.
  - Costs above \$500 each for either the DPW Highway Encroachment Permit or the DZSP21 utility permits or clearance fees are not included in the proposal fee.
  - Field Investigations will only be conducted between the hours of 0900 and 1530 during weekdays.
  - Minimum restoration of the test boring holes will be performed, as practical.
- j) **Archaeological Monitoring during Geotechnical drilling** – Archaeological monitoring will be provided during test borings as required by the Guam Historical Preservation Office on a time and materials basis and is currently estimated to be no more than 32 hours.

#### **Task 4 - Hydraulic Analysis**

- a) A hydraulic sewer model will be generated utilizing Innovyze's InfoSWMM to model the gravity sewer line main from manhole 1399Asan downstream to the Agana Pump Station. The model will also include the modeling of the Asan Pump Station and force main based upon as-built drawings. The sewer model will also be provided in EPA SWMM for implementation into GWA's sewer model, as needed.
- b) Land use data will be researched and collected for both the existing and proposed future land uses. Peak flows will be generated from available land use and field data, and inputted into the model.
- c) A hydraulic analysis will be performed using the calibrated model to determine if the existing capacity of the sewer line is sufficient to handle the planned future flows and that the proposed rehabilitation or replacement will not have negative consequences. It is our understanding that the existing line currently experiences surcharging during wet weather events, therefore the model will account for these peaking factors to the extent known and will be checked that no overflows would exist, however system design capacity will not necessarily be increased to accommodate these additional flows outside of normal accepted inflow and infiltration.
- d) Findings from the analysis will be included as a chapter within the Preliminary Engineering Report as part of Task 5.

#### **Task 5 - Preliminary Engineering Report**

- a) A Preliminary Engineering Report will be generated to summarize the findings from Tasks 2-5 and will include the following:
  - An archeological assessment of project impact will be assessed and a report will be prepared outlining the anticipated scope and impacts the project could encounter with any archeological or cultural sensitive areas.
  - The recommended repair or replacement design for the sewer main from 1399Asan to the Asan pump station wet well and from 13Asan to the Hagatna pump station wet well.
  - A Class 4 (AACE) cost estimate will be provided for the recommendations.
  - A preliminary geotechnical report
- b) Four (4) hard copies and an electronic copy of this report will be submitted to GWA for review and approval before proceeding with any design documents.

## **Task 6 - Design Documents**

Upon approval of the recommendations for design presented in the preliminary engineering report by GWA and EPA, design documents will begin to be prepared. The following scope will be provided as part of this task:

- a) **Archaeological Monitoring and Discovery Plan (AMDP)** – One AMDP will be developed to cover both the Phase I and Phase II design packages. The AMDP will be based upon consultation with the Guam Historic Preservation Office (GHPO) and the requirements given based upon the scope of the Route 1 sewer design. One (1) hard copy of this plan will be submitted.
- b) **30% Design Plans, Specifications and Cost Estimates** – Design plans, specifications and cost estimate will be prepared according to the following:
  - Design plans will be produced on half size 11"x17" sheets and will include, but not limited to sewer plans and profiles.
  - Design plans will be produced and provided utilizing Autocad Civil 3D 2014.
  - Specifications will be generated to include only an outline and key sections and will be coordinated with GWA's front end documents, Sections A, B and C.
  - Construction cost estimate will be Class 2 (AACE).
  - Five (5) hard copy sets of the design plans, specifications and construction cost estimate will be submitted.
- c) **90% Design Plans, Specifications and Cost Estimates**
  - Design plans will be produced on half size 11"x17" sheets and will include, but not limited to sewer plans and profiles, details, bypass pumping and traffic control plans.
  - Design plans will be produced and provided utilizing Autocad Civil 3D 2014.
  - Specifications will be generated in coordination with GWA's front end documents, Sections A, B and C.
  - Construction cost estimate will be Class 2 (AACE).
  - Five (5) hard copy sets of the design plans, specifications and construction cost estimate will be submitted.
- d) **100% Design Plans and Specifications**
  - Design plans will be produced on full size 22"x34" sheets and will include, but not limited to sewer plans and profiles, bypass pumping and traffic control.
  - Design plans will be produced and provided utilizing Autocad Civil 3D 2014.
  - Specifications will be generated in coordination with GWA's front end documents, Sections A, B and C.

- Five (5) hard copy sets of the design plans, specifications and construction cost estimate will be submitted.
  - Five (5) sets of electronic copies will be submitted on DVD's.
- e) **Permits** - The following permits are anticipated for this project and the permit applications will be started and ready for the construction contractor at the time of bidding and all associated reviews with the agencies will be conducted at the 30%, 90% and 100% design document levels:
- Department of Public Works Building Permit
  - Department of Public Works Highway Encroachment Permit
  - Guam Environmental Protection Agency Clearing and Grading Permit
  - Guam Environmental Protection Agency Sewer Construction Permit
  - Guam Environmental Protection Agency Dewatering Permit
  - Guam Environmental Protection Agency Erosion Control Permit
- f) **Permit Agency Coordination** - Permit clearances will be conducted and obtained from the following agencies in relation to obtaining the various permits listed above.
- Department of Public Works (DPW) –Highway Engineering Department
  - Department of Land Management (DLM)
  - Guam Power Authority (GPA)
  - Guam Environmental Protection Agency (GEPA)
  - Guam Parks and Recreation
  - Guam Division of Aquatics and Wildlife Resources (DAWR)
  - United States National Park Service (NPS)
  - United States Army Corps of Engineers (USACE)
  - Asan Village Mayor's office
  - Hagatna Village Mayor's office
  - DZSP21
  - Guam Telephone Company (GTA)
  - Docomo Pacific
  - Tata Communications
  - Pacific Data Systems
  - IT&E
  - Verizon Business (CalPac)

#### **Task 7 - Bidding Process**

- a) A pre-bid meeting will be conducted with GWA, the PMO and interested bidding contractors. A meeting agenda and sign in sheets will be prepared and made available

during the meeting. Meeting minutes will be prepared from this meeting and will be provided to GWA for review and incorporated into the bid documents.

- b) Requests for clarification will be compiled with appropriate responses in coordination with GWA and addenda will be prepared as needed.
- c) HDR will attend the bid evaluation conference.
- d) HDR will review, evaluate and certify the bid tabulations.
- e) HDR will prepare a letter recommendation for the construction contract award.

#### **Task 8 - Construction Services**

As mentioned earlier in this scoping letter, HDR anticipates that a majority of the Asan sewer main line will require open cut replacement and a majority of the Hagatna sewer main line will require rehabilitation. Based upon these two conditions and the existing sewer capacity is sufficient for future peak flows, it is anticipated that construction on the Phase I design will require a total of approximately twelve (12) months and the Phase II design package will require another twelve (12) months, for a total of approximately twenty four (24) months of construction to complete both phases. Task 8 construction services only cover services to be performed for the Phase I construction. Construction services for Phase II can be performed for an additional charge. A Not to Exceed (NTE) fee has been prepared and includes the following services to be performed:

- a) Final 100% "Issued for Construction" conformed plans and specifications incorporating addenda, change orders and changes during the bid phase will be prepared. Five (5) sets of hard copy plans, specifications and cost estimate will be provided and five (5) sets of electronic documents on DVD will be provided.
- b) Weekly construction progress meetings will be attended at the request of GWA.
- c) Performing field observations as required and submit field reports documenting any findings. Field observations are estimated to be required on a weekly basis.
- d) Archaeological monitoring services will be provided as required by GHPO and are estimated at 480 hours. Data collection will be based upon recording and collecting small samples of artifacts, with no more than ten (10) artifacts being collected, processed, analyzed and temporarily curated. Archaeological monitoring investigations will be conducted at the rates specified per hour and all sites and features will be recorded and evaluated to the extent that can be accomplished by a single archaeological monitor and in the case the work is too much for one monitor, an additional monitor can be added upon the written approval of GWA at the same hourly rate presented in the proposal.
- e) HDR will review contractor submittals, RFI's, Change Orders and schedule and provide responses/comments as necessary.
- f) HDR will perform a final inspection and submit a punch list of items to GWA.

**Compensation**

HDR proposes to perform the services as outlined according to the following:

Tasks 1-7, except those listed in Task 3 to be performed on T&M basis and the Archaeological Fieldwork Data Analysis and Report.	Lump Sum of \$1,327,449
Task 3 T&M services and Task 8	NTE Sum of \$295,189
<b>Total HDR NTE Fee</b>	<b>\$1,622,638</b>

A summary of the fee in the requested GWA format is attached for both the lump sum fee and the time and materials fee. Also included is the proposed schedule of rates.

**Delivery Schedule**

HDR proposes to complete Tasks 1-6 as presented in this proposal within 8 months, after a signed contract and Notice to Proceed (NTP) are received by HDR. Task 7 is assumed to follow and be completed within 30 days from GWA's receipt of Phase I, 100% design plans and specs. Task 8 will be delivered over a period of 12 months from the time the construction contractor receives a contract and NTP.

**Proposal Assumptions, Exclusions and Limitations**

Only the services described in our proposal are included. The following assumptions, exclusions and limitations were made in preparation of this scope and fee proposal:

- USACE Section 401 Permitting – It is assumed that no major exterior rehab or reconstruction work will be performed at the stream crossings, therefore no permitting will be required and is not included in the scope and fee.
- From the scoping meeting held on July 24, 2015 with Brown and Caldwell, it is unknown if an environmental assessment has previously been done for this project and we understand that the US EPA has provided a categorical exclusion for approximately 1,000 linear feet on Route 1 in Adelup, located across from the Governor's complex. It is unknown if the remaining area of the project has also been given a categorical exclusion, therefore any fees for conducting an environmental assessment have been excluded at this time.
- Uncovering buried or paved over manholes to conduct manhole inspections is not included in the scope and fee. GWA will be required to uncover these manholes for inspections to be conducted.
- GWA shall assist with obtaining permission for accessing manholes on private property, if required.
- The scope and fee does not include repaving uncovered or buried manholes

- Plugging the sewer line for flow control for either smoke testing or dye testing is not included in the fee.
- Smoke testing or dye testing are only to confirm if any illicit stormwater connections exist from the Asan Beach Unit to the sewer main. Any connections found will be reported to GWA. The scope and fee does not include designing any of these reconnections to a stormwater system.
- The proposal fee assumes that no human skeletal remains or features of significance requiring data recovery, analysis, and reporting will be discovered during the archaeological monitoring investigations.

GWA and the PMO will be responsible for providing the following in addition to items identified in Task 2:

- Latest GIS information to include both water and wastewater infrastructure.
- Request and deliver the latest existing and proposed land use and zoning maps in GIS from the Bureau of Statistics and Plans and from the Department of Land Management
- Request and deliver the latest parcel map in GIS from the Department of Land Management.
- Latest GWA sewer model for the project area.
- Providing a water meter and source for filling a Vactor truck.
- Providing a disposal site at the Northern District Wastewater Treatment Plant for any sewage and debris collected from the sewer lines.
- Providing access to pump stations for field investigation work.
- Providing GWA standard details.
- Providing GWA standard upfront Sections A, B, C of specification documents.

We are again thankful for the opportunity to serve GWA again on this very important project. If there are any questions, please feel free to call Nick Manley in our Guam office at 671-989-5558.

Sincerely,

HDR Engineering, Inc.



Aaron Meilleur  
Vice-President



Design Services to Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement  
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Route 1 Lump Sum Fee Worksheet

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HDR											Subconsultants					Sum Total
Task Number	Task Description	Principal Engineer	Project Manager	Technical Advisor - QA/QC	Senior Engineer	Project Engineer	GIS Analyst	CAD	Accounting	Clerical	USI	PSET	Pineda	Search	RLB	
	Hourly Labor Rates/Unit Prices	\$250	\$190	\$250	\$190	\$140	\$125	\$135	\$95	\$70	-	-	-	-	-	
<b>1.0</b>	<b>Project Management</b>															
1.0.1	General Project Management (Task 1-7)	30	100	6	0	0	0	0	16	6						\$29,940
1.0.2	Develop Project Management Plan	0	8	0	16	0	0	0	0	0						\$4,560
1.0.3	Develop Project Schedule and Updates	0	16	0	8	0	0	0	0	0						\$4,560
1.0.4	Develop Monthly Progress Reports	0	16	0	0	0	0	0	0	0						\$3,040
1.0.5	Bi-weekly Meetings with GWA	4	40	0	16	0	0	0	0	0						\$11,640
1.0.6	Project Kick-off Meeting	2	6	2	4	2	0	0	0	0						\$3,180
1.0.7	Public Outreach	0	8	0	0	0	0	0	0	0						\$1,520
	<b>SUBTOTAL</b>	36	194	8	44	2	0	0	16	6	0	0	0	0	0	<b>\$58,440</b>
<b>2.0</b>	<b>Data Research and Agency Coordination</b>															
2.0.1	Obtain and Review Record Drawings	0	8	0	8	20	0	0	0	0						\$5,840
2.0.2	Obtain and Review Maintenance and Repair History	0	4	0	4	4	0	0	0	0						\$2,080
2.0.3	Obtain and Review Manhole and CCTV Inspection Data	0	2	0	2	4	0	0	0	0						\$1,320
2.0.4	Obtain and Review Pump station operation data	0	8	0	16	8	0	0	0	0						\$5,680
2.0.5	Obtain and Review Existing Flow monitoring data	0	8	0	24	0	0	0	0	0						\$6,080
2.0.6	Obtain and Review Future Flow estimates and Sewer Model from B&C	0	4	0	12	0	0	0	0	0						\$3,040
2.0.7	Interview GWA operations staff	0	4	2	4	2	0	0	0	0						\$2,300
2.0.8	Initial Coordination with DPW, DLM, GPA, GEPA, GPR, DAWR, NPS, USACE, Mayors, DZSP21, GTA, Docomo, Tata, PDS, IT&E, CalPac	0	60	0	0	0	0	0	0	0						\$11,400
	<b>SUBTOTAL</b>	0	98	2	70	38	0	0	0	0	0	0	0	0	0	<b>\$37,740</b>
<b>3.0</b>	<b>Field Investigation</b>															
3.0.1	Conduct, Obtain and Review Rainfall & Flow Monitoring Data (4 Meters/60 days)	0	10	0	40	20	0	0	0	0	\$60,000					\$72,300
3.0.1a	USI Mobilization (Personnel, Monitoring Equipment and Installation Equipment)										\$25,000					\$25,000
3.0.2	Conduct, Obtain and Review Manhole Inspection Data	0	4	0	30	100	0	0	0	0	\$10,800					\$31,260
3.0.3	Conduct, Obtain and Review CCTV Data	0	8	1	20	60	0	0	0	0	\$25,840					\$39,810
3.0.3a	USI Mobilization (CCTV Truck)										\$60,000					\$60,000
3.0.4	Conduct, Obtain and Review Survey	0	4	1	4	8	0	0	0	0			\$67,600			\$70,490
3.0.5	Conduct, Obtain and Review Geotechnical Investigations	0	4	1	4	8	0	0	0	0		\$37,500				\$40,390
	<b>SUBTOTAL</b>	0	30	3	98	196	0	0	0	0	\$181,640	\$37,500	\$67,600	\$0	\$0	<b>\$339,250</b>

Last Updated: 9/22/2015





Design Services for Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement  
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Route 1 Lump Sum Fee Worksheet

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<b>4.0</b>	<b>Hydraulic Analysis</b>															
4.0.1	Obtain GIS Land Use Data	0	8	0	0	0	8	0	0	0						\$2,520
4.0.2	Manipulate GIS Land Use Data to Develop Flows	0	8	0	60	0	90	0	0	0						\$24,170
4.0.3	Develop Hydraulic Sewer Model	0	8	0	100	0	0	0	0	0						\$20,520
4.0.4	Analyze Results of Hydraulic Sewer Model	0	10	0	60	20	0	0	0	0						\$16,100
	<b>SUBTOTAL</b>	0	34	0	220	20	98	0	0	0						<b>\$63,310</b>
<b>5.0</b>	<b>Preliminary Engineering Report</b>															
5.0.1	Develop Final PER Report	0	20	16	100	120	70	0	0	16						\$53,470
5.0.2	Archeological Assessment of Project Impact	-	-	-	-	-	-	-	-	-				\$2,669		\$2,669
5.0.3	Class 4 (AACE) Cost Estimate for PER Report	-	-	-	-	-	-	-	-	-					\$8,000	\$8,000
	<b>SUBTOTAL</b>	0	20	16	100	120	70	0	0	16	\$0	\$0	\$0	\$2,669	\$8,000	<b>\$64,139</b>
<b>6.0</b>	<b>Design Documents</b>															
6.0.1	Archaeological Monitoring and Discovery Plan													\$3,352		
6.0.2	Prepare 30% Plans	0	60	40	150	200	0	300	0	0						\$118,400
6.0.3	Prepare 30% Specs	0	4	8	40	40	0	0	0	20						\$17,360
6.0.4	Prepare 30% Class 2 (AACE) Cost Estimate	0	4	0	8	10	0	0	0	0					\$3,000	\$3,680
6.0.5	30% Permitting	0	50	0	15	20	0	0	0	0						\$15,150
6.0.6	Prepare 90% Plans	0	160	100	300	500	0	760	0	0						\$285,000
6.0.7	Prepare 90% Specs	0	20	12	80	100	0	0	0	40						\$38,800
6.0.8	Prepare 90% Class 1 (AACE) Cost Estimate	0	8	0	16	20	0	0	0	0					\$6,000	\$7,360
6.0.9	90% Permitting	0	80	0	20	40	0	0	0	0						\$24,600
6.0.10	Prepare 100% Issue to Bid, Plans	0	40	20	80	140	0	200	0	0						\$74,400
6.0.11	Prepare 100% Issue to Bid, Specs	0	2	4	10	20	0	0	0	20						\$7,480
6.0.12	100% Permitting	0	50	0	10	20	0	0	0	0						\$14,200
6.0.13	Prepare Building Permit and Other Permit Applications	0	30	0	0	2	0	0	0	0						\$5,980
	<b>SUBTOTAL</b>	0	508	184	729	1112	0	1260	0	80	\$0	\$0	\$0	\$3,352	\$9,000	<b>\$612,410</b>
<b>7.0</b>	<b>Bidding Process</b>															
7.0.1	Pre-Bid Meeting	0	4	0	2	2	0	0	0	0						\$1,420
7.0.2	Compile requests for clarification	0	16	8	20	20	0	0	0	0						\$11,640
7.0.3	Prepare addenda	0	16	0	20	20	0	0	0	0						\$9,640
7.0.4	Bid Evaluation Conference	0	4	0	0	0	0	0	0	0						\$760
7.0.5	Review and Tabulate Bid Tabulations	0	4	0	4	20	0	0	0	0						\$4,320
7.0.6	Prepare Recommendation for Award Letter	0	4	0	0	8	0	0	0	0						\$1,880
	<b>SUBTOTAL</b>	0	48	8	46	70	0	0	0	0						<b>\$29,660</b>
<b>8.0</b>	<b>Construction Services</b>															
8.0.1	Fieldwork Data Analysis and Report	0	0	0	0	0	0	0	0	0				\$12,910		\$12,910
	<b>SUBTOTAL</b>	0	0	0	0	0	0	0	0	0	0	0	0	\$12,910	0	<b>\$12,910</b>

Last Updated: 9/22/2015



Design Services fo Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement  
 GWA Project No. S15-002-EPA  
 Route 1 Lump Sum Fee Worksheet

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	Technology Charge	\$20,720
	Mileage Reimbursement	\$1,000
	Printing, Scanning and Binding	\$2,500
HDR SUBTOTAL		\$919,399
Total Subcontractor Subtotal		\$322,680
Subconsultant Markup (10%)		\$32,268
Total Subtotal Fee		\$1,274,347
GUAM GRT TAX (4.167%)		\$53,102
TOTAL LUMP SUM FEE		\$1,327,449



Design Services to Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement  
GWA Project No. S15-002-EPA  
Time and Materials Fee Worksheet

HDR											Subconsultants					
Task Number	Task Description	Principal Engineer	Project Manager	Technical Advisor - QA/QC	Senior Engineer	Project Engineer	GIS Analyst	CAD	Accounting	Clerical	USI	PSET	Pineda	Search	RLB	Sum Total
	Hourly Labor Rates/Unit Prices	\$250	\$190	\$250	\$190	\$140	\$125	\$135	\$95	\$70						
3.0	Field Investigation															
3.0.1	Conduct, Obtain and Review Additional Manhole Inspection Data	0	2	0	6	24	0	0	0	0	\$2,700					\$7,580
3.0.2	Sewer Pipe Cleaning (Est. at \$3,000/day for 30 days)										\$90,000					\$90,000
3.0.3	Misc. Fieldwork (Inclusive of smoke testing and dye testing) (Est. at \$425/hr for 20 hours)										\$8,500					\$8,500
3.0.4	Geotechnical Standby Time for any Archaeological Work (Est. at \$415/hr for 24 hours)											\$9,960				\$9,960
SUBTOTAL		0	2	0	6	24	0	0	0	0	\$101,200	\$9,960	\$0	\$0	\$0	\$116,040
8.0	Construction Services															
8.0.2	General Project Management	20	50	8	8	0	0	0	15	0						\$19,445
8.0.3	Prepare "Issued for Construction" conformance plans and specs	0	10	8	10	20	0	20	0	0						\$11,300
8.0.4	Review Submittals, RFI's, Change Orders and Contractor's Schedule, Attend Construction Contractor's Progress Meetings, and perform Field Observations	0	228	0	40	0	0	0	0	0						\$50,920
8.0.5	Perform Final Inspection and Punch List	0	8	0	0	0	0	0	0	0						\$1,520
8.0.6	Archaeological Monitoring (Geotech and Construction)(Min. 4 hour per visit)													\$62,750		\$62,750
SUBTOTAL		20	296	16	58	20	0	20	15	0	\$0	\$0	\$0	\$62,750	\$0	\$145,935
								Technology Charge							\$1,765	
								Mileage Reimbursement							\$650	
								Printing, Scanning and Binding							\$1,600	
HDR SUBTOTAL																\$92,080
Total Subcontractor Subtotal																\$173,910
Subconsultant Markup (10%)																\$17,391
Total Subtotal Fee																\$283,381
GUAM GRT TAX (4.167%)																\$11,808
TOTAL TIME AND MATERIALS FEE																\$295,189
TOTAL LUMP SUM FEE (FROM PAGE 2)																\$1,327,449
GRAND TOTAL FEE																\$1,622,638



**Design Services for Asan-Adelup-Hagatna,  
Route 1 Sewer Rehabilitation and Replacement  
GWA Project No. S15-002-EPA  
Rate Schedule for Professional Services**

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<b>Category</b>	<b>Assigned Hourly Rate</b>
Principal Engineer	\$250
Technical Advisor	\$250
Project Manager	\$190
Senior Engineer	\$190
Project Engineer	\$140
GIS Analyst	\$125
CAD Designer	\$135
Accounting	\$95
Administration	\$70

**Reimbursable Expenses:****Printing**

22"x34" Large Format Print

\$1/sheet

**Scanning**

22"x34" Large Format Scan

\$1/sheet

**Mileage**

Reimbursed at the effective IRS allowable rate (Currently \$0.575/mile)

Compensation for services shall be at the hourly billing rates identified in the schedule above. If additional labor categories are used on the project, they and their billing rates will be submitted to GWA for approval. Billing rates are subject to annual adjustments for changes in salary. In addition to compensation for labor, the CONSULTANT shall be reimbursed for subcontractor costs and other direct costs associated with the project.

**Notes:**

1. Subconsultants are charged at cost plus ten percent (10%).
2. A technology charge of \$3.70 will be billed for every hour charged.
3. The Guam Revenue Tax (GRT) in effect at the time of billing will be applied to each monthly invoice total for work.

## EXHIBIT B



March 13, 2020

Mr. Thomas F. Cruz, PE  
Chief Engineer  
The Guam Waterworks Authority  
Engineering Division  
Gloria B. Nelson Public Service Building  
688 Rt. 15  
Mangilao, Guam 96913

SUBJECT: Route 1 Sewer Line Rehabilitation and Replacement (Asan-Adelup-Hagatna), GWA Project No. S15-002-EPA; Change Order No. 7 – Additional Fee for Construction Services for Phase I and Additional Fee for Phase II design package and bidding services.

Dear Mr. Cruz,

HDR Engineering, Inc. (HDR) is pleased to present this proposal for additional services to be performed during the remainder of the current construction contract for Phase I by Infratech International, LLC. (ITI).

Additionally, we understand that GWA desires to repackage the remainder of this project that was not included within the Phase I construction contract as a Phase II design construction package and is requesting additional services in support of the bidding and construction phase. The additional services for Phase I and Phase II are described below in more detail:

### **Phase I Additional Construction Services**

HDR understands that the existing construction contract with ITI is proposed to be extended from their original construction contract end date by an additional 127 working days. Our proposed services are estimated to be extended based upon that same timeframe or an equivalent of 7 months.

HDR also understands that the Guam Department of Public Works (DPW) is requiring that ITI perform construction work across Route 1 at night for the sewer line replacement between manholes 1397Asan and 1398Asan. This requirement will require archaeological monitoring to be performed during these night time hours, which is outside of our originally agreed upon contract working hours. We understand that this change is still being worked out in full details with ITI on

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how they plan to perform the work, so our proposal is based upon the following information that has been provided to us:

1. ITI plans to perform work at night for 12 hours a night.
2. ITI plans to perform sheet piling for excavation protection. This is assumed to require initial monitoring for excavation prior to sheet piling, and continued monitoring after sheet piling has been installed.
3. ITI plans to require two (2) months to perform the work.

A more detailed description of the continued construction support is provided below:

#### **Scope of Work and Detailed Task Descriptions**

The following describes a detailed scope of work proposed for this project:

#### **Task 8 - Construction Services**

As mentioned earlier, it is our understanding that ITI's contract is being extend an additional 127 days. These additional services include the following:

- a) Bi-weekly construction progress meetings will be attended at the request of GWA.
- b) Performing field observations as required and submit field reports documenting any findings. Field observations are estimated to be required on a bi-weekly basis.
- c) Archaeological monitoring services were provided and have exceeded our original contract for 480 hours. From 11/27/2019 to 1/8/2020 an additional 33.5 hours were expended in excess of our original contract as follows:

Date	Personnel	Hours	4 Hour Minimum (Yes or No)	Total Cumulative Hours
11/27/2019	Flores, Lisa	4	No	4
12/30/2019	Flores, Lisa	7	No	11
1/6/2020	Flores, Lisa	7.5	No	18.5
1/7/2020	Flores, Lisa	7.5	No	26
1/8/2020	Flores, Lisa	7.5	No	33.5

- d) Continued archaeological monitoring services will be provided as required by GHPO and have been estimated based upon the CCTV review and recommendations provided by HDR on 11/13/19. Each spot repair has been estimated to only require a limited amount of monitoring service and is based upon 16 hours for each anticipated

spot repair. Each location will be evaluated individually by the project archaeologist and determined if full time or limited monitoring is required.

Additionally, an estimated 512 hours has been estimated to cover a two (2) month construction period for the sewer line replacement that will occur during night time hours.

A detailed estimate of archaeological monitoring services is shown below:

<b>Estimate of Archaeological Monitoring Hours</b>				
<b>US MH</b>	<b>DS MH</b>	<b>Repair (Spot or Full)</b>	<b># of Hours</b>	<b>Notes</b>
1399	1400	Full	40	-
20A	20AA	Spot (Assumed)	16	Need Additional CCTV to assess fully
20AA	1368	Spot (Assumed)	16	Need Additional CCTV to assess fully
1368	1369	Spot (Assumed)	16	Need Additional CCTV to assess fully
1369	1390	-	-	No Spot Repair Needed
1390	1391	Spot	16	-
1391	1392	Spot	16	-
1392	1387	-	-	No Spot Repair Needed; Other work required before CIPP
1387	10293	-	-	No Spot Repair Needed; Other work required before CIPP
10293	1393	-	-	No Spot Repair Needed; Other work required before CIPP
1393	1394	-	-	Possible Sag; Need further CCTV
1394	1395	Spot (Assumed)	16	CCTV Review is not conclusive as this pipe may have a sag present.
1395	1396	-	-	Replaced under Previous Contract
1396	1396A	-	-	Need CCTV (Predicted to not need repair)
1396A	1397	Full	160	(8 Hr/Day x 5 days/week x 4 weeks)
1397	1398	Full	*512	(12 Hr/Day x 5 days/week x 8 weeks) + (8 Hr/Day x 2 days/trip x 2 trips)

*\*Hours shown are just reflective of the estimation of the total hours required to complete the monitoring based upon the 12 hours/night shift for 60 days at a normal M-F schedule and additional 8 hour/day for travel days for 2 trips. This number does not reflect how this work will be billed, which is explained further below in this proposal and on the rate schedule.*

Continued data collection will be based upon the original proposal of recording and collecting small samples of artifacts, with no more than ten (10) artifacts being collected, processed, analyzed and temporarily curated.

Archaeological monitoring investigations during the day will be conducted at the rates specified per hour and all sites and features will be recorded and evaluated to the extent that can be accomplished by a single archaeological monitor and in the case the work is too much for one monitor, an additional monitor can be added upon the written approval of GWA at the same hourly rate presented in the proposal.

Archaeological monitoring investigations during the night, will be required to bring an additional monitor dedicated to this project from off island to perform these investigations. Appropriate travel and expense costs have been included in this proposal for a proposed duration of no more than 60 days. This work will be delivered at a daily rate of \$1,500 plus applicable daily expenses.

### **Phase II Additional Services**

The requested scope of services is to repackaging the remaining construction drawings that were not included as part of the Phase I construction package and prepare a revised construction bid set for a Phase II portion of this project.

Additionally, GWA desires for continued bidding and construction services support to be provided throughout the bidding and construction phase of this Phase II project.

Contrary to the Phase I construction services, it is our understanding that GWA desires that the successful bidding Contractor be required to provide the archaeological monitoring services throughout their construction as required by the Guam State Historical Preservation Office (SHPO), therefore is not included within this proposal.

More detailed description of the tasks and services is provided below:

### **Scope of Work and Detailed Task Descriptions**

The following describes a detailed scope of work proposed for this project:

#### **Task 9 - Phase II Design Documents**

- a) Repackage Design Plans and Specifications into a Phase II Bid Package. Appropriate updates to the documents will be made to place archaeological monitoring service requirements onto the Contractor to perform. Additional "lessons learned" from the



Phase I construction will be implemented to the current design to improve on the construction documents.

- b) Repackaging design plans and specifications will be provided according to the following:
  - Updates to the design construction plans and specifications will be made and electronic PDF copy of changes will be delivered for review by GWA.
  - Design plans will be produced on full size 22"x34" sheets.
  - Five (5) hard copy sets of the design plans and specifications will be submitted.

#### **Task 10 - Phase II Bidding Process**

- a) A pre-bid meeting will be conducted with GWA, the PMO and interested bidding contractors. A meeting agenda and sign in sheets will be prepared and made available during the meeting. Meeting minutes will be prepared from this meeting and will be provided to GWA for review and incorporated into the bid documents.
- b) Requests for clarification will be compiled with appropriate responses in coordination with GWA and addenda will be prepared as needed.
- c) HDR will attend the bid evaluation conference.
- d) HDR will review, evaluate and certify the bid tabulations.
- e) HDR will prepare a letter recommendation for the construction contract award.

#### **Task 11 - Phase II Construction Services**

HDR anticipates that a majority of the Hagatna sewer main line will require rehabilitation. It is anticipated that construction on the Phase II design package will require twelve (12) months to complete. A Not to Exceed (NTE) fee has been prepared and includes the following services to be performed:

- e) Final 100% "Issued for Construction" conformed plans and specifications incorporating addenda, change orders and changes during the bid phase will be prepared. Five (5) sets of hard copy plans, specifications and cost estimate will be provided and five (5) sets of electronic documents on DVD will be provided.
- f) Weekly construction progress meetings will be attended at the request of GWA.
- g) Performing field observations as required and submit field reports documenting any findings. Field observations are estimated to be required on a weekly basis.
- h) HDR will review contractor submittals, RFI's, Change Orders and schedule and provide responses/comments as necessary.
- i) HDR will perform a final inspection and submit a punch list of items to GWA.

**Compensation**

HDR proposes to perform the services as outlined according to the following:

To Date Total HDR Fee (through CO#6)	\$1,780,210
Tasks 9-10 on a Lump Sum basis.	Lump Sum of \$19,447
Task 8 and 11 on a T&M, NTE basis	NTE Sum of \$194,898
<b>Total HDR CO #7 NTE Fee</b>	<b>\$214,345</b>
<b>Total HDR NTE Fee</b>	<b>\$1,994,555</b>

A summary of the fee in the requested GWA format is attached for both the lump sum fee and the time and materials fee. Also included is the proposed schedule of rates.

**Delivery Schedule**

HDR will continue to provide services under Task 8 on the current construction contract with ITI and proposes to complete Task 9 as presented in this proposal within 1 month, after a signed contract and Notice to Proceed (NTP) are received by HDR from GWA. Task 10 is assumed to follow and be completed within 30 days from GWA's receipt of the Phase II, 100% design plans and specs. Task 11 will be delivered over a period of 12 months from the time the construction contractor receives a contract and NTP and is assumed to follow shortly after completion of the bidding process.

**Proposal Assumptions, Exclusions and Limitations**

Only the services described in our proposal are included. The following assumptions, exclusions and limitations were made in preparation of this scope and fee proposal:

- No permitting support is included in this proposal.
- The proposal fee assumes that no human skeletal remains or features of significance requiring data recovery, analysis, and reporting will be discovered during the archaeological monitoring investigations.
- Off island archaeological monitoring travel will include both labor (up to 8 hours) and daily expenses for one (1) travel day before and after the time on Guam.
- Night archaeological monitoring investigations are based upon no more than 12 hours per day being worked.

- The archaeological monitor scheduled to investigate during the night, will be billed at the nightly rate of \$1,500/night, plus expenses, from the scheduled start night and will continue for each normal business day and until Contractor's excavation work is completed or there is a scheduled break in construction warranting a demobilization and remobilization at a scheduled future date.
- Proposal includes one (1) demobilization and remobilization for the archaeological monitor to demobilize before the sheet piling installation and remobilize to continue monitoring investigations after the sheet piling is installed and excavation resumes.
- Archaeological monitoring investigations are only planned to be for the normal business weekdays and does not include any monitoring investigations to be provided on the weekends.
- The archaeological monitor scheduled to investigate during the night, will be subject to the availability of the monitor to come to Guam.
- To schedule the night work, a minimum notice of three (3) weeks is necessary for scheduling for the archaeological monitor to arrive to Guam.

We are again thankful for the opportunity to continue to serve GWA. If there are any questions, please feel free to Nick Manley at 671-989-5558.

Sincerely,

HDR Engineering, Inc.

A handwritten signature in black ink, appearing to read "Cliff Lum", with a stylized flourish at the end.

Cliff Lum, P.E.

*Water Business Group Manager*

**HDR**

Design Services fo Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement  
 GWA Project No. S15-002-EPA  
 Change Order #7 - Lump Sum Fee Worksheet

Page: 1 of 3

		HDR							Subconsultants						
									USI	PSET	Pineda	Search	RLB		
Task Number	Task Description	Principal Engineer	Project Manager	Technical Advisor - QA/QC	Senior Engineer	Project Engineer	GIS Analyst	CAD	Accounting	Clerical					Sum Total
9.0	Hourly Labor Rates/Unit Prices	\$255	\$195	\$255	\$195	\$145	\$125	\$145	\$125	\$75	-	-	-	-	
9.0.1	Phase II - Design Documents														
	Update Plans and Specifications	0	45	4	0	0	0	20	0	0					\$12,695
	SUBTOTAL	0	45	4	0	0	0	20	0	0	0	0	0	0	\$12,695
10.0	Phase II - Bidding Process														
10.0.1	Pre-Bid Meeting	0	2	0	0	0	0	0	0	0					\$390
10.0.2	Compile requests for clarification	0	8	2	0	0	0	0	0	0					\$2,070
10.0.3	Prepare addenda	0	4	0	0	0	0	0	0	0					\$780
10.0.4	Bid Evaluation Conference	0	2	0	0	0	0	0	0	0					\$390
10.0.5	Review and Tabulate Bid Tabulations	0	8	0	0	0	0	0	0	0					\$1,560
10.0.6	Prepare Recommendation for Award Letter	0	2	0	0	0	0	0	0	0					\$390
	SUBTOTAL	0	26	2	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$5,580
											Mileage Reimbursement				
											Printing, Scanning and Binding				
HDR SUBTOTAL															
Total Subcontractor Subtotal															
Subconsultant Markup (10%)															
Total Subtotal Fee															
GUAM GRT TAX (5.263%)															
TOTAL LUMP SUM FEE															
											</				

Last Updated: 2/25/2020

Last Updated: 2/26/2020



**Design Services for Asan-Adelup-Hagatna,  
Route 1 Sewer Rehabilitation and Replacement  
GWA Project No. S15-002-EPA  
Change Order #7 - Rate Schedule for Professional Services**

Page: 3 of 3

<b>Category</b>	<b>Assigned Hourly Rate</b>
Principal Engineer	\$255
Technical Advisor	\$255
Project Manager	\$195
Senior Engineer	\$195
Project Engineer	\$145
GIS Analyst	\$125
CAD Designer	\$145
Accounting	\$125
Administration	\$75
Archaeological Monitor (SEARCH)(During Normal Business Hours)	\$125

**Reimbursable Expenses:****Printing**

22"x34" Large Format Print \$1/sheet

**Scanning**

22"x34" Large Format Scan \$1/sheet

**Mileage**

Reimbursed at the effective IRS allowable rate (Currently \$0.575/mile)

**Airfare**

Reimbursed at actual cost (Estimated at \$2,500 roundtrip)

**Hotel**

Reimbursed at actual cost (Estimated at \$180/night)

**Car**

Reimbursed at actual rental cost + fuel cost (Estimated at \$70/day)

**Per Diem**

\$50/day (Includes travel days)

Compensation for services shall be at the hourly billing rates identified in the schedule above. If additional labor categories are used on the project, they and their billing rates will be submitted to GWA for approval. Billing rates are subject to annual adjustments for changes in salary. In addition to compensation for labor, the CONSULTANT shall be reimbursed for subcontractor costs and other direct costs associated with the project.

**Notes:**

1. Subconsultants are charged at cost plus ten percent (10%).
2. The Guam Revenue Tax (GRT) in effect at the time of billing will be applied to each monthly invoice total for work.
3. Archaeological Monitors brought in from off island are subject to two (8 hour day equivalent) billing or \$1,000/travel day (8 hours x \$125/hr) for each trip to the island.
4. Archaeological monitoring brought from off island for the purpose of monitoring at night will be billed at the rate of \$1,500/night plus applicable reimbursable expenses as outlined in this proposal.

## Exhibit B (continued)

### Estimate of Remaining Archaeological Monitoring

US MH	DS MH	Repair (Spot or Full)	# of Hours	Notes
1399	1400	Full	40	(8 Hr/Day x 5 days/week x 1 week)
20A	20AA	Spot (Unsure)	16	Need Additional CCTV to assess fully
20AA	1368	Spot (Unsure)	16	Need Additional CCTV to assess fully
1368	1369	Spot (Unsure)	16	Need Additional CCTV to assess fully
1369	1390	-	-	No Spot Repair Needed
1390	1391	Spot	16	
1391	1392	Spot	16	
				No Spot Repair Needed; Other work required before CIPP
1392	1387	-	-	No Spot Repair Needed; Other work required before CIPP
1387	10293	-	-	No Spot Repair Needed; Other work required before CIPP
10293	1393	-	-	Possible Sag; Need further CCTV
1393	1394	-	-	CCTV Review is not conclusive as this pipe may have a sag present.
1394	1395	Spot (Unsure)	16	Replaced under Previous Contract
1395	1396	-	-	Need CCTV (Predicted to not need repair)
1396	1396A	-	-	(8 Hr/Day x 5 days/week x 4 weeks)
1396A	1397	Full	160	(12 Hr/Day x 5 days/week x 8 weeks) + (8 Hr/Day x 2 days/trip x 2 trips)
1397	1398	Full	512	
1398	Asan PS	-	0	
Unbilled Monitoring Hours			33.5	\$4,187.50
Total Daytime Monitoring			296	\$37,000
Total Nighttime Monitoring			512	\$64,000

#### Travel Costs

	# of Trips/Days/Nights	
Airfare (x2, once before sheet pile, once after sheet pile)(\$2500/trip)	2	\$5,000
Hotel (\$180/night)	59	\$10,620
Car (\$70/day)	60	\$4,200
Per Diem (\$50/day)	60	\$3,000
Total Travel Costs		\$22,820
Total SEARCH Costs		\$128,008



Gloria B. Nelson Public Service Building | 688 Route 15 | Mangilao, Guam 96913  
Tel: (671) 300-6846

## **Issues for Decision**

### **Resolution No. 21-FY2020**

Relative to Approval of Amendment for the Indefinite Delivery/Indefinite Quantity (IDIQ) Professional Project/Construction Management Services Contract

#### **What is the project's objective and is it necessary and urgent?**

GWA currently has an IDIQ contract with Brown and Caldwell. One of the tasks to prepare a Consulting Engineer's Report (CER) as required in GWA's pursuit of a Bond issuance to fund numerous water and wastewater system improvements. CER finalization for Bonds has required additional reviews and revisions greater than the original Task Order scope of work, including revisions to address the impacts of the COVID-19 pandemic.

In addition, a Cost of Service/Rate Design Study (COS/RDS) is required by Guam Public Utilities Commission (PUC) GWA Docket 19-08 Ordering Provision 7 as part of the GWA 2020 rate approval.

Both of these efforts are necessary and urgent to obtain funding for the already delayed Court Order projects, and to provide timely completion of PUC-ordered studies as part of the 5-year rate case.

#### **Where is the location?**

The amendment is associated with water and wastewater system improvements island wide.

#### **How much will it cost?**

The current contract amount is \$750,000.00, which includes:

- Task Order 1 for the CER (\$188,490.00, bond-funded)
- Task Order 2 for the Route 4 Sewer Rehabilitation Project (\$148,348, USEPA grant-funded)
- Task Order 3 for the Route 1 Asan-Adelup Sewer Rehabilitation Project Phase 1 (\$209,780, USEPA grant-funded)
- Task Order 4 for the Southern SSES Sewer Project (\$181,924, USEPA grant-funded)

It is the intent that this resolution would approve the increasing the total contract amount to \$1,294,485.00 for:

- Additional work on the CER for an additional \$86,065.00



- \$458,420.00 with a 10% contingency of \$45,842.00 in anticipation of a task order to complete the COS/RDS

The resolution approval also would authorize GWA management to execute change orders as needed up to the maximum authorized contract amount.

**When will it be completed?**

The CER will be completed before May 30, 2020. The COS/RDS will be completed prior to March 31, 2021.

**What is the funding source?**

The funding source for the CER is bond funds and COS/RDS will be funded using Internally Funded Capital Improvement Project and other funding sources as they become available.

**The RFP/BID responses (if applicable):**

N/A



CONSOLIDATED COMMISSION ON UTILITIES  
Guam Power Authority | Guam Waterworks Authority  
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

**GWA RESOLUTION NO. 21-FY2020**

**RELATIVE TO APPROVAL OF AMENDMENT FOR THE INDEFINITE  
DELIVERY/INDEFINITE QUANTITY PROFESSIONAL PROJECT/CONSTRUCTION  
MANAGEMENT SERVICES CONTRACT**

**WHEREAS**, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

**WHEREAS**, the Guam Waterworks Authority is a Guam Public Corporation established and existing under the laws of Guam; and

**WHEREAS**, GWA awarded an Indefinite Delivery – Indefinite Quantity (ID-IQ) contract to Brown and Caldwell for Project Management /Construction Management services in the maximum amount of Seven Hundred and Fifty Thousand Dollars and Zero Cents (\$750,000.00); and

**WHEREAS**, GWA, as authorized by CCU Resolution 15-FY2020, is pursuing a Bond issuance to fund numerous water and wastewater system improvements, and that issuance requires the preparation of a Consulting Engineer’s Report (CER); and

**WHEREAS**, due to the delays in the PUC approval of GWA’s 5-Yr rate plan and other uncertainties, finalization of the CER has required additional reviews and revisions greater than provided for in the Task Order scope of work authorized under this ID-IQ; and

**WHEREAS**, finalization of the CER requires additional analysis to evaluate the potential impacts of the worldwide COVID-19 pandemic and subsequent updates not envisioned in the original scope of work; and

1       **WHEREAS**, preparation of a Cost of Service/Rate Design Study (COS/RDS) is required  
 2 by Guam Public Utilities Commission (PUC) GWA Docket 19-08 Ordering Provision 7 as part  
 3 of the GWA 5-year rate plan approval;

4  
 5       **WHEREAS**, management seeks CCU approval to extend Task Order 1 issued to Brown  
 6 and Caldwell under this IDIQ and increase funding accordingly to 1) Complete the CER as  
 7 provided for in the original Task Order and as amended under its Amendment #2 and 2) identify  
 8 funds based on the preliminary scope and fee proposal from Brown and Caldwell in anticipation  
 9 of a Task Order to prepare a COS/RDS; and

10  
 11       **WHEREAS**, the total amount of the Task Order 1 Amendment 2 equals Eighty-Six  
 12 Thousand and Sixty-Five Dollars and Zero Cents (\$86,065.00) (See Exhibit A) and the Task  
 13 Order for a COS/RDS is anticipated to be Four Hundred Fifty Eight Thousand Four Hundred  
 14 Twenty Dollars and Zero Cents (\$458,420.00) (See Exhibit B) for a total of Five Hundred Forty-  
 15 Four Thousand Four Hundred and Eighty-Five Dollars and Zero Cents (\$544,485.00), with a ten  
 16 percent (10%) contingency of Forty-Five Thousand Eight Hundred Forty-Two Dollars and Zero  
 17 Cents (\$45,842.00) for the COS/RDS only.

18  
 19       **WHEREAS**, Amendment #1 to the IDIQ is necessary to increase the maximum contract  
 20 amount to enable execution of the Task Order 1 Amendment 2 and the COS/RDS, the total  
 21 amount of increase being Five Hundred Forty-Four Thousand Four Hundred Eighty-Five Dollars  
 22 and Zero Cents (\$544,485.00), for a new total contract amount of One Million Two Hundred and  
 23 Ninety-Four Thousand Four Hundred Eighty-Five Dollars and Zero Cents (\$1,294,485.00);

24  
 25       **WHEREAS**, funding for the CER will be from GWA Bond funds applicable to the  
 26 project and funding for the COS/RDS will be from Internally Funded Capital Improvement  
 27 Project and other funding sources as they become available.

28  
 29       **NOW BE IT THEREFORE RESOLVED**, that the Consolidated Commission on  
 30 Utilities does hereby approve the following:

- 31       1. The recitals set forth above hereby constitute the findings of the CCU.  
 32

2. The CCU finds that the CER is required as part of GWA's pursuit of Bond measure to fund numerous system water and wastewater system improvements. and COS/RDS is required by the PUC's Docket 19-8 Ordering Provision 7.
3. The CCU hereby approves the funding increase for additional project and contract support services for the current CER and the COS/RDS in the amount of Five Hundred Forty-Four Thousand Four Hundred and Eighty-Five Dollars and Zero Cents (\$544,485.00), plus a ten percent (10%) contingency of Forty-Five Thousand Eight Hundred Forty-Two Dollars and Zero Cents (\$45,842.00) for the COS/RDS only.
4. The CCU hereby further approves the total funding authorization for the IDIQ contract with Brown and Caldwell to an amount of One Million Two Hundred and Ninety-Four Thousand Four Hundred Eighty-Five Dollars and Zero Cents (\$1,294,485.00).
5. The CCU hereby further approves the funding for the CER from GWA Bond funds applicable to the project and approves the funding for the COS/RDS from Internally Funded Capital Improvement Project and other funding sources as they become available.
6. The CCU hereby further approves management to pursue notification to the PUC for a contract exceeding One Million Dollars (\$1,000,000.00), with the bond-funded portion of the contract totaling less than One Million Dollars (\$1,000,000.00) and the remainder of the contract funded by USEPA grants.

**RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

**DULY AND REGULARLY ADOPTED**, this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

Certified by:

Attested by:

\_\_\_\_\_  
**JOSEPH T. DUENAS**  
Chairperson

\_\_\_\_\_  
**MICHAEL T. LIMTIACO**  
Secretary

**SECRETARY'S CERTIFICATE**

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSTENTIONS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

# Exhibit A

This is **EXHIBIT K**, consisting of 3 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services – Task Order Edition** dated June 27, 2019.

## Amendment No. 2 To Task Order No. 1 – Rev 1

---

### 1. Background Data:

- a. Effective Date of Task Order: June 27, 2019
- b. Owner: Guam Waterworks Authority
- c. Engineer: Brown and Caldwell
- d. Specific Project: Indefinite Delivery/Indefinite Quantity (ID/IQ) For Professional Project/Construction Management Services - Consultant Engineers Report for GWA 2020 Bond issuance

### 2. Description of Modifications

- a. The original Task Order No. 1 provided for a Consulting Engineer's Report (CER) completion date of September 28, 2019 and included submittal and review of two draft reports. The project has been delayed significantly by the Rate Plan review by the PUC's rate consultant. Based on the extended negotiations, the rate plan was approved February 27, 2020. The project completion date has also been negatively impacted by the COVID-19 outbreak, requiring an additional report update and financial analysis. Ultimately up to ten report drafts may be required and the corresponding completion date for the Report may extend until May 2020.
- b. The Engineer shall perform the following additional services:
  - 1. Provide additional Task Management Services for the extended project duration.
  - 2. Complete up to 9 additional drafts of the CER to enable the Bond Working Group to proceed with the Preliminary Official Statement (POS) and enable the CER and POS to be completed as soon as possible following the PUC's Rate Plan Approval and COVID-19 analysis.
  - 3. Include scenario modeling to evaluate the impacts to GWA of the COVID-19 outbreak and update the Report accordingly.
  - 4. Extend the services of the Financial Consultant subcontractor (GRG Group) to cover the work described under items 2.b.2 and 2.b.3.
- c. Additional Services:
  - 1. GWA has also elected to include the Additional Services – Ratings Agency Presentation Attendance item 6.A.2.b. Participation by Financial Consultant of the Task Order in the scope of work to be provided. The originally proposed costs have been increased to include additional information required by the PUC Stipulation and COVID-19 scenario summaries.

- d. The Schedule for Rendering services under this Task Order is modified as follows:

<b>Party</b>	<b>Action</b>	<b>Original Schedule Date</b>	<b>Revised Schedule Date</b>
Engineer	Furnish up to nine additional report drafts for review and use in preparing the POS to Owner. Update report at each submittal to incorporate Owner and Bond Working Group comments. Include final update to address COVID-19 issues	Not Included in Original Scope	Before April 17, 2020
Owner	Submit comments regarding final draft Report to Engineer.	September 13, 2019	Before April 30, 2020
Engineer	Furnish [5] copies of the FINAL Report and other Study and Report Phase deliverables to Owner.	September 28, 2019	Before May 30, 2020
Engineer	Furnish [5] copies of the Certificates of Independent Engineer to Owner.	October 3, 2019	Before June 30, 2020
Engineer	Furnish input as requested by Owner in support of attendance at the Rating Agency Presentations	Original Scope – Additional Services	Before July 30, 2020

- d. For the Additional Services set forth above, Owner shall pay Engineer the following additional compensation:

<b>Description of Service</b>	<b>Additional Amount</b>	<b>Basis of Compensation</b>
1. Basic Services		
a. Task 1 – Task Management	\$12,646	Lump Sum
b. Task 2 – Data Gathering	\$0	Lump Sum
c. Task 3 – Analysis and Preparation of CER	\$58,116	Lump Sum
d. Task 4 – Preparation for Ratings Presentations	\$0	Lump Sum
e. Task 5 – Additional Services – Attendance at Ratings Presentations	\$11,000	Lump Sum
f. Expenses	\$0	Lump Sum
g. GRT	\$4,303	Lump Sum
<b>TOTAL ADDITIONAL COMPENSATION (lines 1.a-f)</b>	<b>\$86,065</b>	

**3. Task Order Summary (Reference only)**

a.	Original Task Order amount:	\$188,490
b.	Net change for prior amendments:	\$0
c.	This amendment amount:	\$86,065
d.	Adjusted Task Order amount:	\$274,555

---

The foregoing Task Order Summary is for reference only and does not alter the terms of the Task Order, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Task Order as set forth in this Amendment. All provisions of the Agreement and Task Order not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is March 24, 2020.

OWNER:

ENGINEER:

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date  
Signed: \_\_\_\_\_

Date  
Signed: \_\_\_\_\_



Guam Waterworks Authority  
Program Management Services PUC Stipulations 2020

**Attachment No. 1**  
**To Exhibit B**

**PRELIMINARY SCOPE OF WORK AND FEE ESTIMATE FOR**  
**COST OF SERVICE/RATE DESIGN STUDY**

As part of the Guam Waterworks Authority's (GWA) efforts to comply with the 2020 PUC Stipulation, GWA has retained the services of Brown and Caldwell (BC) to complete several of the studies contained in the 2020 PUC Stipulation (Guam Public Utilities Commission Docket 19-08). The 2020 PUC Stipulation outlines a series of seven studies, collectively the Stipulated Provision No. 1 Analytical Studies (Analytical Studies) in this Scope of Work. Study No. 3 is the Cost of Service/Rate Design (COS) Study.

BC has asked FG Solutions, LLC (FG Solutions) to prepare a scope of work for the COS Study. The scope of work and fee estimate recognizes that FG Solutions has previously completed separate water and wastewater Cost of Service/Rate Design analyses, and would be able to leverage these analyses for more efficient and more timely completion. **This scope of work and fee estimate is preliminary and will be finalized upon receipt of the final Task Order scope from GWA.**

The 2020 PUC Proposed Stipulation states that the COS Study must:

- Examine the allocation of costs to customer classes of both the water and wastewater systems
- Present alternatives to GWA's current rate designs to support low-income affordability and water conservation objectives

With respect to the COS Study, all of the Analytical Studies except Study No. 5 (Capital Financing Study) are interrelated. The Scope of Work identifies proposed interfaces between these studies and the parties completing them, with the overall goal of meeting the requirements of the 2020 PUC Stipulations as efficiently and as timely as possible.

Specifically, the studies that are interrelated with respect to the COS Study are:

- Study No. 1, Demand Forecasting Study. Projected demands resulting from the Demand Forecasting Study are a key input to the COS Study. As an example, the Demand Forecast Study is also required to consider whether the 20 largest hotels should be evaluated individually. As a result, GWA may decide to evaluate changes to its customer classes. The customer classes fundamentally determine how the cost of service analysis is structured.
- Study No. 2, Water Loss Reduction Study. The outcome of this study will also influence water demands, wastewater flow, and wastewater strength. Water demands, wastewater demands, and wastewater strengths are also key inputs to the COS Study. Changes in water demands and wastewater strength will affect the revenue requirement from each customer class, particularly if these changes are not uniform among customer classes. Further, the cost of implementing the water loss reduction measures and the resulting decrease in purchased water costs will change the revenue requirement.
- Study No. 4, Affordability Study. In conjunction with the COS Study, the Affordability Analysis Study requires addressing affordability through development of a Customer Assistance Program and revision of its current residential lifeline rate structure.
  - The rate design efforts are included in both the COS Study and the Affordability Study. Since the Affordability Study is being prepared in conjunction with the COS Study, that is appropriate.
  - Rate design efforts should be completed with the cost of service analysis because rate design alternatives can't be evaluated without reference to the cost of service analysis. Any inter-class

Guam Waterworks Authority  
Program Management Services PUC Stipulations 2020

subsidies resulting from rate design alternatives will change the revenue requirement for all other customer classes. To evaluate these requires a direct connection between the cost of service analysis and the rate design, which is the cost of service analysis and rate design were combined into the COS Study to begin with.

- Study No. 6, Capitalized Labor Study. This Study could result in shifts in labor expense between operation and maintenance ("O&M") and capital. This will affect the revenue requirement analysis which would have a flow-through effect on the COS Study.
- Study No. 7, Cesspool/Septic Tank Elimination Study. The results of this study will impact the COS Study due to the changes in GWA wastewater customer base, and how costs to eliminate cesspools and septic tanks would be recovered.

The five studies will be completed simultaneously, and all of them will impact the COS Study. Accordingly, this Scope of Work includes time to make revisions to the analysis on an ongoing basis as results from the various studies become available. It is likely that the decisions to be made in the various studies will require knowledge of the rate impacts, so that the best decisions for GWA can be made.

This Scope of Work is focused on the expectation that GWA can secure appropriate funding for the COS Study, as required by the 2020 PUC Stipulation.

**SCOPE OF WORK**

**Task 1: Task Management**

**Approach:** FG Solutions will prepare monthly invoices and status reports, and coordinate in the PMO's work on this task.

**Task 2: Prepare Cost of Service/Rate Design (COS) Study**

**Approach:**

The revenue requirement is a key input to the COS Study. GWA is completing a Revenue Requirement Analysis as part of its Consulting Engineers Report. After the Consulting Engineers Report is complete, the Analytical Studies will result in changes to the revenue requirement. It is not clear how GWA will update the revenue requirement to incorporate the results of the Analytical Studies as the Analytical Studies progress. This scope assumes that GWA's Revenue Requirement consultant will update the revenue requirement as the Analytical Studies are completed and deliver updated Revenue Requirement Analyses to FG Solutions.

For the cost of service analysis, Task 2.1 identifies the interfaces are between the other Analytical Studies and COS Study.

Task 2.2 describes FG Solution's scope to complete the cost of service analysis, which is a part of the COS Study. The cost of service analysis will define the revenue requirement for each customer class. In Task 2.2, FG Solutions will develop the cost of service analysis, based on inputs received from the revenue requirement analysis. The cost of service analysis and rate design portions of the COS both interface with the Affordability Analysis in this task.

In the next step, FG Solutions will develop rate design alternatives, as described in Task 2.3, as part of the COS Study. The cost of service analysis and rate design portions of the COS both interface with the Affordability Analysis in this task.

**Task 2.1: Import Revenue Requirement Analysis and Update Existing Revenue Requirement Portions of COS Model**

FG solutions will import GWA's Revenue Requirement Analysis associated with its Consulting Engineers Report, and use the imported analysis to create the revenue requirement inputs to the cost of service analysis.

## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

FG Solutions anticipates a number of revisions to the revenue requirement between the completion of the Consulting Engineer's Report and the interrelated Analytical Studies. As work on the Analytical Studies proceeds, FG Solutions will update its analysis accordingly. FG Solutions will work with GWA's Revenue Requirement consultant to facilitate this task.

These revisions could include:

- Incorporating the results of GWA's 2020 True-Up Analysis
- Incorporating the results of the Analytical Studies that affect the revenue requirement. Particularly, this would include:
  - Demand Forecasting Study, which will result in updated water purchase and electricity costs.
  - Water Loss Reduction Study, which will result in updated water purchase and electricity costs, as well as the costs to implement water loss reduction measures.
  - Affordability Analysis Study, which will result in costs to implement Customer Assistance Programs.
  - Capitalized Labor Study, which will change which expenses are considered O&M and which are considered capital.
  - Cesspool/Septic Tank Elimination Study, which will add implementation costs and potentially change the wastewater system customer base.

The Fee Estimate is based on completion of the revenue requirement updates by others. FG Solutions will rely on a revised Revenue Requirement Analyses and import as needed. Importing five revisions to the Revenue Requirement Analysis iterations is included in the Fee Estimate.

### Task 2.2. Cost of Service Analysis

#### Task 2.2.1. Customer Class Review

FG Solutions will update its Cost of Service analysis which includes the following customer classes:

- Water: Residential, Commercial, Federal, Government, Hotel, Golf, Agriculture, Irrigation, and Private Fire Protection
- Wastewater: Residential, Commercial I, Commercial II & Hotel, Commercial III, and Government

FG Solutions will work with the GWA and the parties responsible for completion of the Analytical Studies to identify whether changes to GWA's customer classes will be proposed. It is anticipated that the proposed evaluations of residential rates will require evaluation of one additional water customer class and one additional wastewater customer class, which is incorporated into the Fee Estimate below. Revisions to include more than one additional water and one additional wastewater customer class would be considered additional services. If customer class revisions are evaluated, the fee estimate assumes that GWA will modify its customer and water use data to reflect the proposed customer class revisions.

#### Task 2.2.2. COS Analysis Data Request and Compilation of Data

FG Solutions will prepare a data request for the cost of service analysis, and would compile data received from GWA. FG Solutions will work with GWA and BC to identify data gaps, and to identify whether estimates or placeholders would be needed if requested data are not available. The fee estimate is based on the majority of the requested being readily available and being delivered within 30 days of request. The fee estimate is also based on receipt of a single set of projected water demand data arising from the Water Demand Forecasting Study.

#### Task 2.2.3. Update Cost of Service Analysis

FG Solutions will update the cost of service analysis, to produce a revenue requirement for each customer class. The revenue requirement for each customer class would be compared with rate revenues from each customer

## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

class to identify inter-class subsidies.

FG Solutions will update the cost of service analysis to reflect updated data and updated cost allocation factors. FG Solutions will work with GWA and BC staff to review cost allocation factors used in 2016, and evaluate appropriate changes to cost allocation factors and methodology.

Up to five iterations of the cost of service analysis will be performed corresponding to changes in the revenue requirement described in Task 2.1.

### Task 2.2.4. Prepare Cost of Service Analysis Report

FG Solutions will prepare draft, final draft, and final reports summarizing the results of the cost of service analysis. All deliverables will be in electronic format. The draft and final draft reports will be in editable electronic format and the final report will be in PDF form. The cost of service analysis calculations will be attached as appendices to the report. Hard copies of draft, final draft, and final reports will not be provided.

The cost of service analysis report will be prepared simultaneously with the rate design analysis report.

## Task 2.3. Rate Design Alternatives

### Task 2.3.1. Clarify Rate Design Parameters and Alternatives

At the project outset, FG Solutions will work with BC and GWA to establish rate design parameters and alternatives. This would include defining possible rate design alternatives to evaluate. This is important to do at the outset to inform the cost of service analysis, and also the Affordability Study (2020 PUC Stipulation Study No. 4).

In this initial work, GWA will also articulate what GWA's low-income affordability and water conservation goals are, if known at the time. See Task 2.3.4 for further clarification.

The purpose of this evaluation at the project outset is to streamline the interrelated being prepared by multiple parties and to ensure that the COS Study meets the PUC's stated requirement of addressing GWA's low-income affordability and water conservation goals.

### Task 2.3.2. Rate Design Alternatives Data Request and Compilation of Data

FG Solutions will prepare a data request for the rate design alternatives analysis, and would compile data received from GWA. FG Solutions will work with GWA and BC to identify data gaps, and to identify whether estimates or placeholders would be needed if requested data are not available.

### Task 2.3.3. Develop Rate Design Alternatives

For the purposes of this scope of work and fee estimate, rate design alternatives to be developed for GWA's consideration will include the following:

- Developing a third residential rate tier
- Developing fire protection rates
- Developing consumption-based residential wastewater rates
- Revising the lifeline rate structure for both water and wastewater (see Task 2.3.4)
- Rate structure associated with a proposed Customer Assistance Program for both water and wastewater
- Two additional alternatives to be determined during project inception or during the initial three months of the project.

FG Solutions will update its existing rate model to develop the third residential rate tier, fire protection rates, and a consumption-based residential wastewater rate. FG Solutions will develop rate design calculations one revision to the lifeline rate program, one proposed Customer Assistance Program alternative, and the two additional rate design alternatives.

## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

FG Solutions will develop a rate transitioning alternative to provide a phasing in of revised rate structures, with the intent to lessen the amount of “rate shock” an individual customer might experience as rate structure are changed. Up to two iterations of a rate transitioning alternative are included in the fee estimate.

FG Solutions will update the rate design calculations for up to five iterations of the revenue requirement analysis, as the results of the other Analytical Studies become available.

The fee estimate for this task covers the rate design calculations associated with changes to the lifeline rate structure and the Customer Assistance Program. Identification of potential changes to the lifeline rate structure and identification of the Customer Assistance Program is excluded from this task and is instead addressed in Task 2.3.4. The fee estimate also is based on a consumption-based single-family residential wastewater rate structure similar to that evaluated in 2016, where all metered water use is billed up to a monthly cap.

### Task 2.3.4. Identify Low-Income Affordability Rate Structure Alternatives

FG Solutions will work with GWA, BC, and Affordability Study Consultant to identify low-income affordability objectives, if they are not already established at the outset of the project.

In order to do whatever it is we’re supposed to do, this is what we’re going to do.....FG Solutions will perform a limited benchmarking exercise of up to eight utilities to identify low-income affordability programs currently in place. Selection of the eight utilities will be completed jointly by GWA, BC, FG Solutions, and the Affordability Study Consultant. One of the eight utilities will be Seattle Public Utilities, because of their approach to providing rate relief for tenants that are not directly charged a water bill by the utility.

After development of these low-income affordability rate structure alternatives, FG Solutions will work with the Affordability Study Consultant estimate participation rates. FG Solutions will use the anticipated participation rates as an input to the revenue requirement component of the cost of service analysis.

### Task 2.3.5. Monthly Bill Comparisons

The purpose of this task is to identify the extent to which GWA customers will see increases or decreases to water and wastewater bills as a result of rate changes.

As a part of the rate design analysis, FG Solutions will prepare a monthly bill comparison based on current and proposed bills for GWA’s customers. The monthly bill comparison will identify, for all GWA accounts, the percentage changes to the customer’s respective water and wastewater bills, resulting from changes in the rate structures. This part of the rate design analysis will be done to the extent data are available, and will rely on a 12-month export from GWA of account-by-account water bills, wastewater bills, water meter size, customer class, and billed water consumption. The output of this task is the percentage of customers with changes in monthly bills in grouped ranges (for example, x% of customers will see monthly bill increases between 0% and 5%, y% of customers will see monthly bill increases between 5% and 10%, etc.).

### Task 2.3.6. Comparison with Analogous Utilities

FG Solutions will also prepare a comparison of GWA’s current and projected water and wastewater bills with up to six analogous utilities for four example customers.

### Task 2.3.7. Prepare Rate Design Analysis Report

FG Solutions will prepare draft, final draft, and final reports summarizing the results of the rate design analysis. All deliverables will be in electronic format. The draft and final draft reports will be in editable electronic format and the final report will be in PDF form. The rate design analysis calculations will be attached as appendices to the report. Hard copies of draft, final draft, and final reports will not be provided.

The rate design report will be prepared simultaneously with the cost of service analysis report.

## **Task 3: Meetings and Presentations**

### **Approach:**

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FG Solutions staff will attend two meetings on Guam during separate trips. The first meeting is to present findings of the COS Study as described in the Stipulation to the CCU. The second meeting to present findings of the COS Study to the PUC.

In a previous 2018 proposal, FG Solutions was asked by BC to provide a proposal for FG Solutions to facilitate a series of workshops with the CCU and GWA management with a total workshop duration of 4 to 8 hours. The purpose of the workshop was to facilitate an in-depth discussion of rate structure alternatives intended to result in policy direction from the CCU. The proposed CCU meeting in this current scope of work does not include the series of workshops and is limited to presenting the findings of the COS Study. Should GWA wish to hold these workshops as previously proposed, this can be done as an additional service.

### Task 3.1: CCU Meeting (First of Two Trips)

FG Solutions will develop the PowerPoint presentation for the CCU Meeting.

- Develop draft outline of the CCU presentation for review by GWA staff.
- Develop the presentation in PowerPoint format.
- Participate in phone calls with GWA staff in advance of the CCU Meeting.

#### Other Items:

Any photos, maps or graphics related to the capital improvement plan or existing facilities to be used in the presentation will be provided by GWA or BC.

It is assumed that GWA or BC will have a projector and laptop available for the presentation.

FG Solutions's consultants Debi Fortin and Art Griffith will travel to Guam and present findings of the COS Study at the CCU Meeting. It is anticipated for the purposes of the fee estimate that the CCU meeting would be held on a Tuesday. Work completed during this time is expected to include:

- Various meetings with GWA staff and/or others related to water and wastewater rates.
- Continued preparation for the CCU meeting as required based on the results of meetings with GWA staff while on Guam.
- Attendance and presentation at the CCU meeting.
- As time permits after the CCU meeting, documenting the results of the meeting and meeting with GWA staff in order to discuss the next steps.
- After completion of the CCU meeting, FG Solutions will document the results of the Workshop, decisions made, and anticipated next steps.

### Task 3.2: PUC Meeting (Second of Two Trips)

After making revisions, if any (see Task 4) resulting from the CCU Meeting, FG Solutions will revise the presentation to be appropriate for the PUC meeting.

FG Solutions's consultants Debi Fortin and Art Griffith will travel to Guam and present findings of the COS Study at a PUC meeting.

### Task 4: Post CCU Workshop Revisions

#### **Approach:**

The purpose of Task 4 is to incorporate CCU feedback the CCU meeting and make revisions to the COS Study. FG Solutions anticipates that CCU feedback could require changes to:

- The Revenue Requirement Analysis
- Water and wastewater rate structure alternatives

Guam Waterworks Authority  
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- The required extent of the modifications to the model and report following the CCU meeting are not known. Therefore, FG Solutions proposes to prepare a specific scope and budget estimate for this task (if necessary) after the CCU meeting, to be added to this contract via Amendment.

**FEE ESTIMATE**

This scope of work will be performed for a cost not to exceed \$214,890 without written consent from GWA. This fee estimate does not include any payment of Guam's Gross Receipts Tax. The fee estimate is based on completion of work between May 1, 2020 and March 31, 2021. FG Solutions updates its hourly rates on January 1 of each year by an inflationary amount of 3% per year.

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Task	Labor Hours (Notes 1 and 2)		Labor Budget	Expenses (Note 3)	Total Budget
	Griffith	Fortin			
Task 1. Project Management	4	12	\$3,100		\$3,100
Task 2. Cost of Service and Rate Design Study					
2.1. Import Revenue Requirement Analysis and Update Existing Revenue Requirement Portion of COS Model	20	64	\$16,240		\$16,240
2.2. Cost of Service Analysis					
2.2.1. Customer Class Review	4	4	\$1,620		\$1,620
2.2.2. Data Request and Compilation of Data	12	32	\$8,560		\$8,560
2.2.3. Update Cost of Service Analysis	40	88	\$25,080		\$25,080
2.2.4. Prepare Cost of Service Analysis Report	16	40	\$10,920		\$10,920
2.3. Rate Design Alternatives					
2.3.1. Clarify Rate Design Parameters and Alternatives	12	4	\$3,380		\$3,380
2.3.2. Data Request and Compilation of Data	8	24	\$6,200		\$6,200
2.3.3. Develop Rate Design Alternatives	64	80	\$28,880		\$28,880
2.3.4. Identify Low-Income Affordability Rate Structure Alternatives	12	40	\$10,040		\$10,040
2.3.5. Monthly Bill Comparisons	10	40	\$9,600		\$9,600
2.3.6. Comparison with Analogous Utilities	4	16	\$3,840		\$3,840
2.3.7. Prepare Rate Design Analysis Report	16	40	\$10,920		\$10,920
Task 3. Meetings and Presentations					
Task 3.1. CCU Meeting (Trip No. 1)					
Develop Presentation	12	18	\$5,970		\$5,970
On-Island: Attend and Present at Meeting	56	56	\$22,680	\$9,350	\$32,030
Follow-up Activities	8	8	\$3,240		\$3,240
Task 3.2. PUC Meeting (Trip No. 2)					
Develop Presentation	8	8	\$3,240		\$3,240
On-Island: Attend and Present at Meeting	56	56	\$22,680	\$9,350	\$32,030
Task 4: Post-Workshop Revisions (Not Included in This Fee Estimate)			\$0		\$0
<b>Total Tasks 1 - 4</b>	<b>362</b>	<b>630</b>	<b>\$196,190</b>	<b>\$18,700</b>	<b>\$214,890</b>

Note 1: Hourly Rates, Calendar Year 2020

Art Griffith, Principal and Project Manager

\$220

Debi Fortin, Principal and Senior Consultant

\$185

Hourly rates are applicable for calendar year 2020. FG Solutions adjusts its hourly rates and expenses on January 1 of each year by an inflationary amount of 3% per year.

Note 2: Labor estimates per trip include 8 hours travel time per person per trip, plus four 10-hour work days on island per person per trip.

Note 3: Expenses, Per Trip

Air Travel: Debi Fortin and Art Griffith

\$6,000 \$3,000 per person

Transportation to/from Airport

\$225

Per Diem

\$2,500 \$250/day for five days for two people

Rental Car and Gas

\$625

Total

\$9,350



**TASK ORDER FORM**

**Exhibit B**

This is Task Order No. XX,  
consisting of 5 pages.

**Task Order**

In accordance with Paragraph 1.01 of the Agreement Between Owner and Engineer for Professional Services, dated June 17, 2019 ("Agreement"), Owner and Engineer agree as follows:

**Preliminary Task Order Proposal**

**1. Background Data**

- a. Effective Date of Task Order: \_\_\_\_\_
- b. Owner: Guam Waterworks Authority
- c. Engineer: Brown and Caldwell
- d. Specific Project (title): Indefinite Delivery/Indefinite Quantity (ID/IQ) for Professional Project/Construction Management Services
- e. Specific Project (description): Indefinite Delivery/Indefinite Quantity (ID/IQ) For Professional Project/Construction Management Services – Cost of Service/Rate Design Study

**2. Services of Engineer**

- A. The following presents a description of the expected scope of services under the ID/IQ for a Cost of Service/Rate Design Study. The services proposed will be finalized upon receipt of the detailed scope of work provided by GWA.
- B. The preliminary services proposed to be provided or furnished by Engineer under this Task Order are:

**SCOPE OF WORK**

This task will be performed by Brown and Caldwell under the GWA ID/IQ Project Management/Construction Management contract herein referred to as "Engineer".

**Task 1: Task Management**

**Approach:** Engineer staff will manage the scope, schedule, and budget associated with the work described in this Task Order to ensure that this work is managed in a manner that meets contract requirements. This includes, but is not limited to, management of documents, change, risk, and quality assurance and control. This task shall include regular progress conference calls (at least every two weeks) or meetings between Consultant and GWA personnel to review project progress, issues to be resolved,

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early study results, etc. This task covers efforts associated with the internal quality control and technical review process. Internal checking or peer review of all deliverables will also be performed

**Engineer Responsibilities:** Engineer staff will manage the scope, schedule and budget.

**GWA Responsibilities:** GWA staff will attend meetings, review progress reports, process pay and change order requests and assist as necessary towards the construction project completion.

### **Task 2: Data Gathering**

**Approach:** Engineer staff will request and review available information required for the project completion.

**Engineer Responsibilities:** Request and review documentation.

**GWA Responsibilities:** Provide requested information.

### **Task 3: Analysis and Preparation of Cost of Service/Rate Design Study**

**Approach:** Engineering team will prepare a Cost of Service/Rate Design Study (COS) for presentation to the CCU and PUC as necessary. The COS study will primarily be completed by BC's financial Subconsultant FG Solutions. FG Solutions preliminary proposal for the work is included as Attachment 1.

The Engineering team will develop up to two drafts of the COS study for GWA review and comment. The Engineer team will coordinate with other GWA financial consultants during preparation of the COS Study.

**Engineer Team Responsibilities:** Prepare draft and final versions COS study Report; coordinate with GWA and GWA's financial consultants.

**GWA Responsibilities:** Provide information as requested by the Engineer, review draft COS study, provide collective GWA comments on up to two draft reports; participate in conference calls and attend meetings and workshops.

**Products:** Up to two draft COS Study reports and final report.

### **SCHEDULE**

The Engineer will conduct the effort described in this Task Order beginning on April 1, 2020 to produce the final deliverables by February 28, 2021.

- C. Resident Project Representative (RPR) Services (Excluded)
- D. Designing to a Construction Cost Limit (Excluded)
- E. Other Services (Excluded)

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- F. All of the services included above comprise Basic Services for purposes of Engineer's compensation under this Task Order.

### 3. Additional Services

- A. Additional Services that may be authorized or necessary under this Task Order are:

☐ N/A.

### 4. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 of the Agreement and in Exhibit B.

### 5. Task Order Schedule

In addition to any schedule provisions provided in Exhibit A or elsewhere, the parties shall meet the following schedule:

<u>Party</u>	<u>Action</u>	<u>Schedule</u>
Engineer	Furnish [ 2 ] review copies of the COS Study Report and other Study.	Within [ 250 ] days of the Effective Date of the Task Order.
Owner	Submit comments regarding first draft Report and other Study and Report Phase deliverables to Engineer.	Within [ 14 ] days of the receipt of first draft Report and other Study and Report Phase deliverables from Engineer.
Engineer	Furnish [ 5 ] review copies of the final COS Study Report.	Within [ 30 ] days of the receipt of Owner's comments regarding the final draft Report.

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**6. Payments to Engineer**

A. *The following presents the preliminary estimate for the work, subject to revision upon the final scope of work to be provided by GWA.*

Owner shall pay Engineer for services rendered under this Task Order as follows:

Description of Service	Amount	Basis of Compensation
1. Basic Services (Section 2.A above)		
a. Task 1 – Task Management	\$18,500	Lump Sum
b. Task 2 – Data Gathering	\$22,000	Lump Sum
c. Task 3a – BC Services	\$98,000	Lump Sum
Task 3b – FG Solutions Subcontract	\$246,000	Lump Sum
Task 3c – Allowance for Undefined Scope	\$50,000	Lump Sum
d. Expenses	\$1000	Lump Sum
e. GRT	\$22,920	Lump Sum
<b>TOTAL COMPENSATION (lines 1.a-f)</b>	<b>\$458,420</b>	
2. Additional Services -	- 0 -	

Compensation items and totals based in whole or in part on Hourly Rates or Direct Labor are estimates only. Lump sum amounts and estimated totals included in the breakdown by phases incorporate Engineer's labor, overhead, profit, reimbursable expenses (if any), and Consultants' charges, if any. For lump sum items, Engineer may alter the distribution of compensation between individual phases (line items) to be consistent with services actually rendered, but shall not exceed the total lump sum compensation amount unless approved in writing by the Owner.

B. The terms of payment are set forth in Article 4 of the Agreement and in the applicable governing provisions of Exhibit C.

**7. Consultants retained as of the Effective Date of the Task Order: None****8. Other Modifications to Agreement and Exhibits: None****9. Attachments: None****10. Other Documents Incorporated by Reference: None****Task Order Form**

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## 11. Terms and Conditions

Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is [ ].

OWNER:

By: \_\_\_\_\_

Print Name: Miguel C. Bordallo, PE

Title: General Manager

ENGINEER:

By: \_\_\_\_\_

Print Name: Raymond N. Matasci, PE

Title: Senior Vice President

Engineer License or Firm's  
Certificate No. (if required): \_\_\_\_\_

State of: \_\_\_\_\_

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

E-Mail  
Address: \_\_\_\_\_

Phone: \_\_\_\_\_

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

Name: Kurt Bilz

Title: Project Manager

Address: 414 West Soledad, No. 602  
Hagatna, GU 96910

E-Mail  
Address: kbilz@brwnald.com

Phone: (671) 300-4221

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