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
5:30 p.m., April 28, 2020

AGENDA

1. **CALL TO ORDER**

2. **APPROVAL OF MINUTES**

3. **GPA**
   - 3.1 **GM Report**
   - 3.2 **Financials**
   - 3.3 **Division Reports**

4. **GWA**
   - 4.1 **GM Report**
   - 4.2 **Financials**
   - 4.3 **Resolution No. 22-FY2020 Relative to Approval of Change Order No. 5 and Approving Additional Contingency Funds for the Route 4 Relief Sewer Line Rehabilitation and Replacement**
   - 4.4 **Resolution No. 23-FY2020 Relative to Approval of the COVID-19 Regulatory Asset**
   - 4.5 **Resolution No. 24-FY2020 Relative to Ratification of Suspension of Credit Card Payment Limits on Non-Residential Accounts**
   - 4.6 **Division Reports**

5. **OTHER DISCUSSION**
   - 5.1 **Proposed CCU Rules**

6. **ANNOUNCEMENTS**
   - 6.1 **Next CCU Meetings: GWA WS – May 19; GPA WS – May 21; CCU Mtg – May 26**

7. **EXECUTIVE SESSION**
   - 7.1 **(2) GWA Litigation Matters**

8. **ADJOURNMENT**

CONSOLIDATED COMMISSION ON UTILITIES
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Regular Board Meeting
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., February 21, 2020

MINUTES

1. CALL TO ORDER

The CCU Chairman called the regular meeting of February 21, 2020 to order at 5:38 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:

Vangie Lujan	Compliance / GWA
Vince Leon Guerrero	Procurement / GWA
Paul Kemp	AGM Compliance & Safety / GWA
Gilda Mafnas	Asst. CFO / GWA
Patti Diego	Communications / GPA
Vien Wong	IT Support / GPA IT
Joyce Sayama	Mgmt. Analyst / GPA Ex.Office
Ann Borja	Mgmt. Analyst / GWA Ex Office
Lou Sablan	Board Secretary / CCU

2. APPROVAL OF MINUTES

The Minutes of February 11, 2020 was presented for approval.

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

3. COMMUNICATIONS

3.1 Public Comments - None

4. GWA

4.1 GM Report

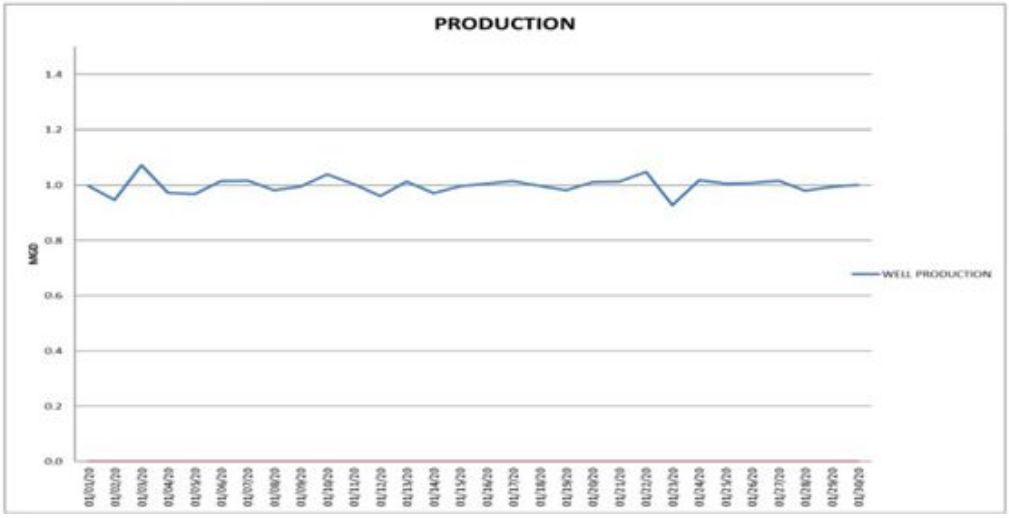
Operations Update

Production (January 2020)

Monthly Production Summary - January 2020			
Deep Wells		36.7	MGD
Active wells =	96 of 120		
Avg days in operation =	31 days		
Total Production =	1,137,530 Kgals		
Springs		0.34	MGD
Avg days in operation =	31 days		
Total Production =	10456 Kgals		
Ugum Surface Water Plant		2.3	MGD
Avg days in operation =	31 days		
Total Production =	71,110 Kgals		
Tumon Maul Well		1.00	MGD
Avg days in operation =	31 days		
Total Production =	30,967 Kgals		
	1,250,063 Kgals	40.3	MGD

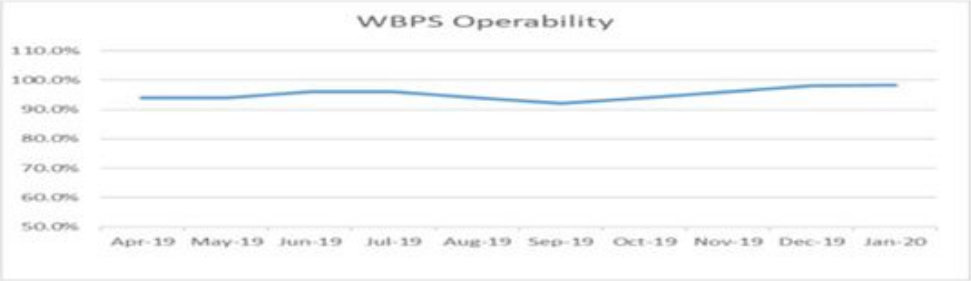
DW Status as of 1/31/2020		
Active	96	
Grounded motor or Pump Failure	7	A26-D03-D08-D19-D20-F06-M17A
Out of commission	8	A02-A07-A28-D05-D13-M14-M101-M105
Temporarily Secured	4	A23-A25-A32-F10
Standby	5	A10-A29-F05-F16-M12
TOTAL	120	

Tumon Maul Well Production (January 2020)

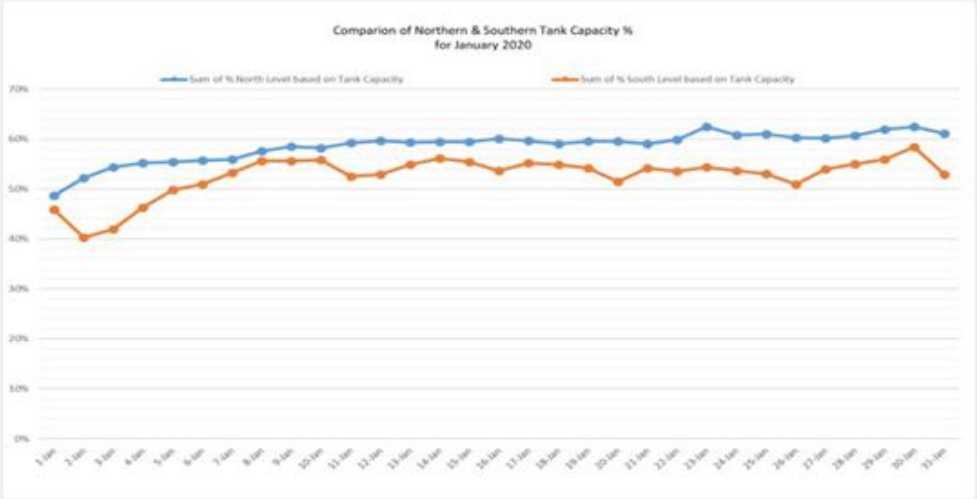


Distribution (January 2020)

Monthly Distribution Summary - January 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 (January 2020)



Wastewater Collections (January 2020)

Monthly Collections Summary - January 2020					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	42	80.8%
	Central	29	63	54	85.7%
	Southern	27	58	53	91.4%
		78	173	149	86.1%

	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Target	5	5	5	5	5	5	5
Total Actual Miles	6.6	5	5	4.4	2.4	0.65	2.44

Wastewater Collections –Cleaning/Jetting (January 2020)

Asan

Wastewater Collections –Cleaning/Jetting (January 2020)

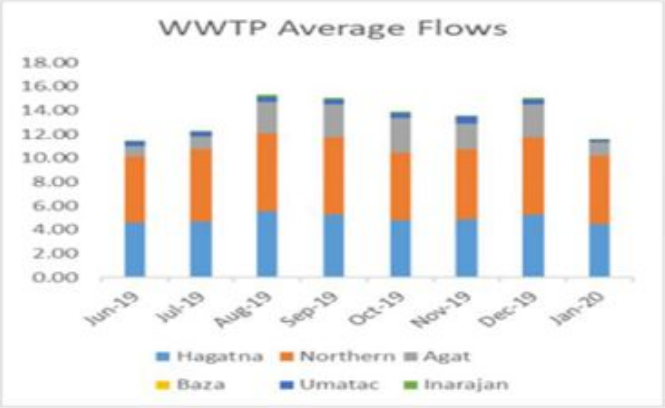
Piti

Wastewater Collections –Cleaning/Jetting (January 2020)

Hyundai, Santa Rita

Wastewater Treatment (January 2020)

Monthly Wastewater Treatment Summary - January 2020				
WW Treatment Plants - Flows				
	Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. ($)
	Hagatna	4.44	283,080	$ 25,477
	Northern	5.77	1,055,960	$ 95,036
	Agat	1.1	72,740	$ 6,547
	Baza	0		
	Umatac	0.24		
	Inarajan	0.05		
		11.60	1,411,780	$ 127,060



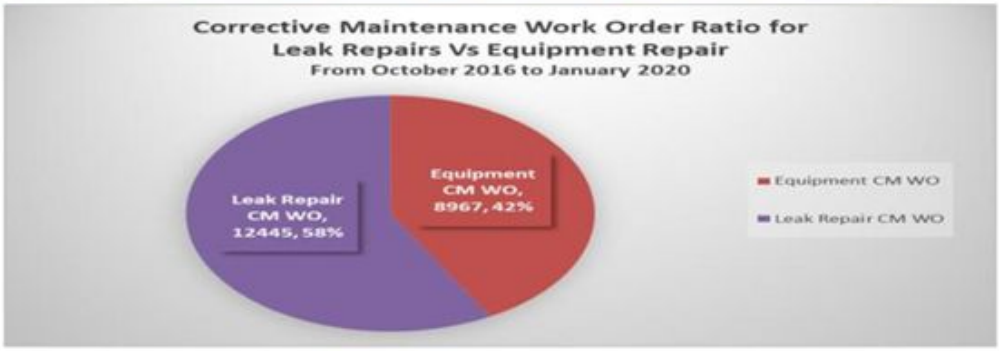
Asset Management (January 2020)

I. Equipment Preventive Maintenance to Corrective Maintenance ***Ratio***

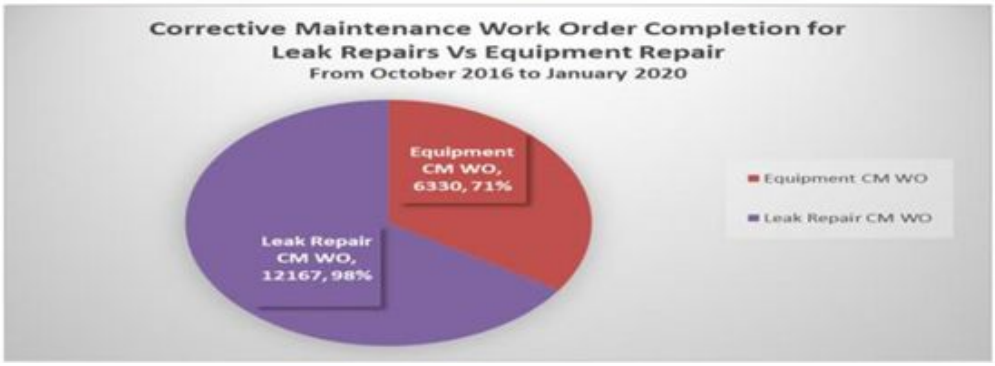
II. Equipment Preventive Maintenance to Corrective Maintenance ***Work Order Completi***

Asset Management (January 2020)

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



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



Operational Issues

Production & Distribution

- Valve Issues:
  - Addressed long-standing pressure issues in isolated area in Tamuning due to a failed partially-closed valve. Pressures have improved around GPO
  - Togcha valve separating Ugum supply from northern well water supply broke and required replacement
- Problems with line breaks on older ACP lines in
  - Toto-Canada (Jan 6th, Jan 12th)
  - 6" ACP Main Break in Tumon (Jan 23rd)
  - Santa Rita (Jan 31st)

Wastewater Collection & Treatment

- Collection System:
  - Route 2 project final lateral connections have been completed.
  - Route 1 and Route 4 projects still in progress; traffic impacts are on-going
  - Route 3 and Route 9 interceptor work is about 61% complete
- Hagatna WWTP
  - Parts for two clarifiers ordered; basins being inspected for needed repairs; plant operating satisfactorily on one clarifier
- NDWWTP
  - Major excavation work for clarifiers on-going; steelwork for foundations / concrete pour anticipated this week
  - Water supply issues continue until lines in the area are upgraded

Meters from January 2017 through January 2020

COMPLETED FIELD ACTIVITY JAN 2017 THRU JAN 2020 (POSTED IN CIS)	2017	2018	2019	Jan-20	TOTAL:		COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Meter Exchange	6487	13353	10850	1079	31769		178

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	6079	12259	9278	749	28365
AVG # OF FIELD STAFF PERFORMING CHANGE OUTS (MON THRU FRI):	19	16	7	7	
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	10	6.3	5	5	
TOTAL:	**29**	**22**	**12**	**12**	

REMAINING ACTIVE BADGER LP MODELS TO BE REPLACED AS OF Jan 31 2020: ***1871***

3/4" BADGER METERS IN STOCK AS OF Feb 07 2020:

Size	Meter Description	New Meters Passed	New Meters Untested	Passed Field Meters	MMP	Meters Available
3/4"	METER, Badger AMR 5/8" X 3/4" RCDL Model M25 Disc Meter	1420	0	246	0	1666
3/4"	METER, Badger AMR 5/8" x 3/4" **WARRANTY** RCDL Model M25	0	0	0	0	0
3/4"	METER,Badger 5/8"x3/4" NSF61-G RCDL M25LL Disc Meter Integral	38	0	0	0	38
3/4"	METER, Badger AMR 5/8" x 3/4" RCDL Model M25 ***RMI***	0	0	0	0	0
3/4"	METER, Badger E-SERIES 5/8"X3/4" ULTRASONIC	975	0	0	0	975

Backbilling through January 2020

Guam Waterworks Authority

Collections Report[1] on Accounts Backbilled thru January 31, 2020

For fiscal years 2015 through 2020 (Jan)

Accounts Billed			Collection Status											
			Amounts Collected[1]			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%	45	59,378	8%	62	68,495	9%	47	39,768	5%
FY2019	8,324	$ 3,064,384	7,581	2,430,067	79%	119	103,453	3%	436	428,165	14%	188	102,699	3%
FY2020	1,391	$ 385,270	585	68,645	18%	6	1,631	0%	778	311,552	81%	22	3,442	0%
Total	11,643	$ 4,590,095	9,875	$ 3,396,823	74%	184	$ 185,429	4%	1,300	$ 838,045	18%	284	$ 169,796	4%

[1] Collections thru February 12, 2020

One Guam Update

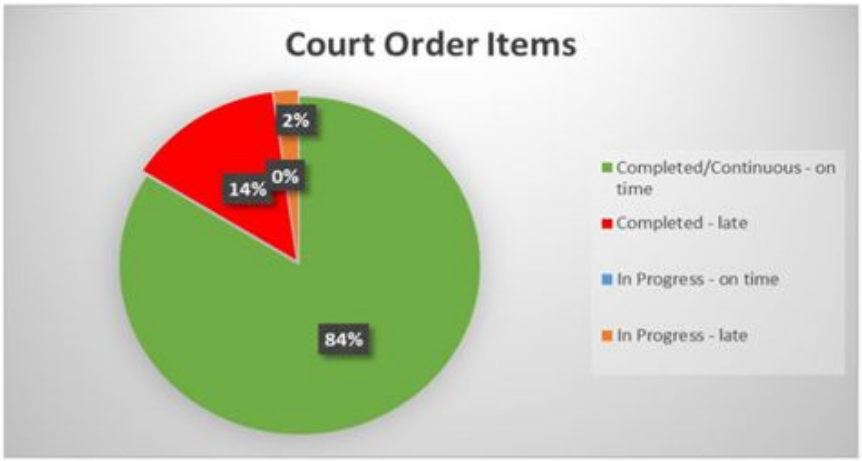
- Tumon Maui Well
  - Well Inspection was completed; Some corrective actions for mostly minor issues.
  - GWA will be replacing the GAC based on sampling data at the vessels; pending the availability of a crane.
  - DOD and GWA discussed formalizing the inspections. Future inspections will need to be signed by someone from GWA & NBG inspector for documentation.
  - Needed repairs to be done within one cycle if possible.
- OEA Projects
  - Observation Wells/NGLA
    - Maria Lewis is still waiting on response on acceptance of well locations. There are no issues on Y well. M1 well is the one adjacent to the training site for the large vehicles. B&C pushed the actual site 30' SW within the 100'x100' Area of Potential Effect that was surveyed (cultural/biological).
    - Need to coordinate the construction schedules. Easements will be granted for all wells.
    - GWA is reviewing the draft MOA on recurring costs for data collection and evaluation.
  - Sewer Interceptor
    - MEC exemption was expiring this month. B&C notified DoD & MEC exemption was extended one more year.
    - Extension on the License has been approved until September 2020.
- Property Transfers
  - Transfer of BPM-1: There is a cloud on the title, however it can still be transfer in its current state. DOD will wait for GWA to make a decision if they are interested in obtaining the property with the issues related to the title.
  - Marbo Areas: verifying property surveys for potential easements from Navy.
  - Transfer of Navy Laterals at Murray Road to GWA: The approval letter is still at Naval Base Guam. Installation Commanding Officer needs to sign, then approval package has to be prepared.

One Guam Update

- Other
  - Cabras Island Water Lines
    - DOD descoped the line upgrade project.
    - GWA will not be accepting the line, if the repairs are not completed.
    - DOD will abandon the line properly if GWA doesn't want it.
  - ACEORP Tunnel
    - The letter and package are being reviewed by Federal GSA before it goes to Congress. The schedule for it to be turned into a quit claim deed is November.
  - Utility Data Sharing: Maria Lewis sent the non-disclosure agreement (NDA) to Miguel Bordallo; needs his approval or his comments. Once received, will put in with MOU for submittal to the CO & then get the signatures.
  - Marine Corps Base
    - Connection at Potts Junction will be in about 5-6 months. Once they connect & test it, they will shut the valve until ready to use it. Don't expect force flow (full base operation) and the increased water requirement until 2024.
    - GWA will provide water to the Operation of Potts Junction intertie based on the Tumon Maui Well MOU.
    - In the future, a contractual agreement to operate it needs to be in place. Need to talk about maximums, requirements, etc. Water exchange is preferred.
  - Andersen AFB
    - Andersen will pursue the installation of a wastewater meter to obtain actual wastewater discharge amounts. Andersen will work with GWA in determining the specification for the meter and the appropriate location for the installation of the meter. The monthly water readings are provided by Andersen to GWA. GWA bills 80% of the water consumption as the charge for wastewater. Andersen will be responsible to purchasing the meter and the cost of installation.
  - AG-1 Access for GWA/GPA
    - DOD is working with GWA to establish easier access to AG-1. This will elevate the issues related to security of the well for GWA personnel.

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	78	2	13	0	97.8%



Court Order

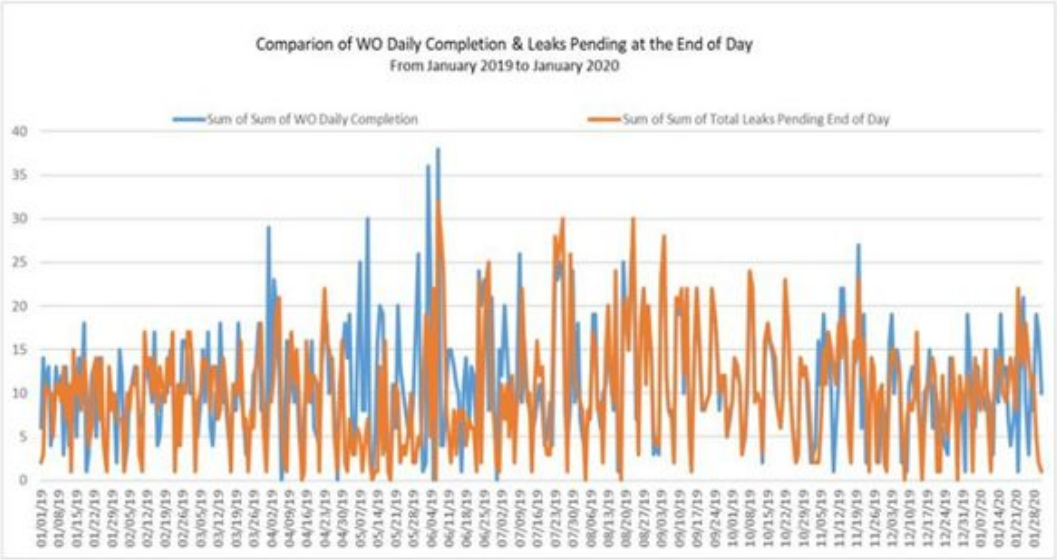
Status Information (for January 2020)

- 2 items delayed
  - Water Reservoir Repair. Replacement or Relocation program, CO II C 29(b)(6)(ii)–(all remaining tanks). (Affects final date of the Court Order.)
  - Umatac-Merizo Wastewater Treatment Plant – completed in December; ribbon cutting held in January.
- Final Date to complete all Court Order items may 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).]
- Overflow or Bypass events reported to USEPA:
  - 01/25/2020 Ignacio P. Quitugua St, -- FOG
  - 01/31/2020 Chalan Nette St. Yigo – FOG
  - 02/01/2020 Roy T. Damien St. – Mongmong – Sensor clogged

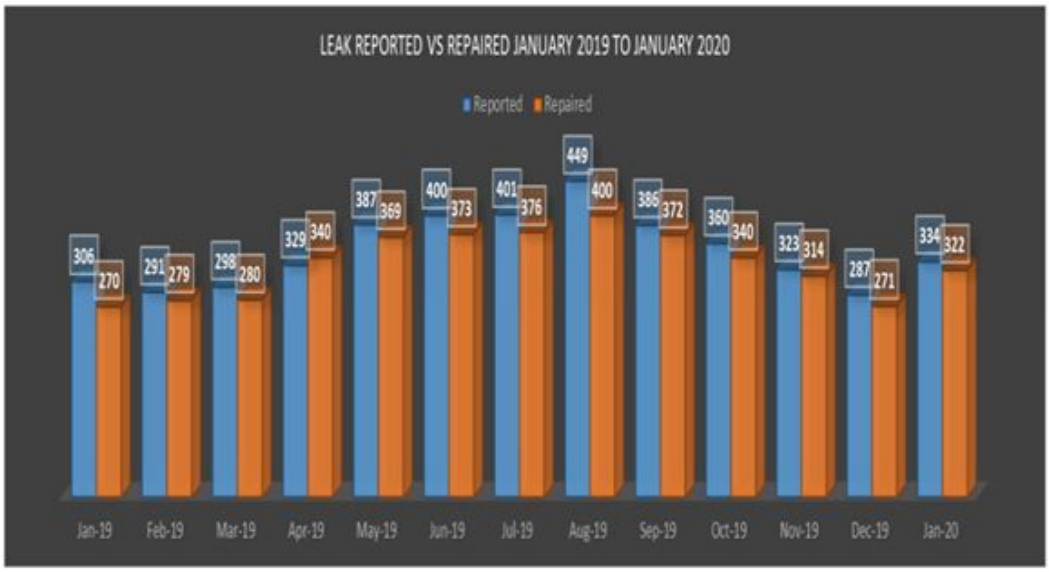
Land Acquisition Summary (as of January 2020 – no changes from Nov/Dec 2019 reports)

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	Pending comments from Federal and GovGuam agencies on Section 106 documents 11/07/19.
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2nd 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	Pending comments from Federal and GovGuam agencies on Section 106 documents 11/07/19.

Leak Repair Summary (January 2020)



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



Monthly Leak Report Cost (January 2020)

Assumptions:

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

4.2 <u>Financials</u> – Not discussed.

4.3 <u>Resolution No. 13-FY2020 Relative to Authorizing the Modernization of the Guam Waterworks Authority Enterprise Resource Planning System</u>

GWA first implemented JD Edwards (JDE) Enterprise Resource Planning system (ERP) in 1998 to manage day-to-day accounting, procurement and human resources business activities. The JDE World ERP v9.3 will no longer be supported or enhanced by the vendor in March 2020. Over the years, GWA employees have developed manual workarounds using stand-alone software applications to perform tasks and create reports because of JDE World's limitations and its complicated and inefficient legacy green screen "command line interface.

GWA has evaluated the DXC Red Projects JDE EnterpriseOne (E1) solution for engineering and construction firms and determined it is a state-of-the-art ERP solution that provides all the tools necessary to transform GWA to paperless digital business processes and integrate with other GWA business systems.

GWA requires a transformational ERP upgrade to automate and integrate business systems and processes that will improve employee productivity, more efficiently streamline operations and provide timely decision support information in order to achieve the objectives in the 2018 Water Resource Master Plan Update (WRMPU).

A major component of the WRMPU is more than 160 Capital Improvement Projects (CIP) for implementation between 2018 and 2037 estimated to cost $1.2 billon. The Red Projects modernization of the ERP will allow GWA to automate CIP project workflow for multi-fund/year

budgeting, procurement, contracting, project management, job forecasting, financial tracking/payments and capitalization of assets. Red Projects will allow the engineering and finance departments to focus on high value work by cutting down on the amount of time spent on gathering and reconciling information from several siloed information systems. It will also enable internal staff, external agencies, contractors and partners to collaborate on both CIP planning and implementation.

The GWA Asset Management program is using a Computerized Maintenance Management System (CMMS) that requires double entry for work orders, inventory and time and labor. The CMMS system is also not integrated with the JDE ERP and thus is unable to track the cost of asset maintenance and reconcile with Fixed Asset valuations. The software program has been problematic to upgrade. Significant IT resources are dedicated to developing and maintaining it and, despite multiple efforts, been unable to implement a mobile solution with simplified forms for use on smart phones by field operations.

Red Projects will completely integrate Asset Management with Fixed Assets, Inventory and Time and Labor functions to allow condition-based maintenance and accurate and historical cost reporting and analysis. Integration of financial information will allow real-time cost of service predictive modeling and reporting. A pre-integrated Mobile Workforce Solution will provide employees in the field with real time access to information to conduct preventive and corrective maintenance on GWA assets. Work orders can be completed in the field using a smartphone by allowing employees to enter job-based time and materials information as well as complete inspections and assessments.

Modernizing the ERP system is necessary and urgent to provide many of the tools necessary to move GWA's organizational performance to the next level. In order to elevate to a well-rounded world class water and wastewater utility, GWA must be more agile in recording, processing and reporting information. Too much time and effort are currently wasted on low-value activity such as manually collecting, modifying, editing and formatting data for reports. The use of paper-based forms and physical routing of documents for approvals also slows processes such as procurement, recruitment, employee evaluations, employee on-boarding and incident reporting to list a few. The Red Projects JDE E1 solutions will completely digitize GWA's work processes, freeing up employees to perform more of the high value work needed to achieve high levels of internal and external customer service.

The project will have two JD Edwards E1 database environments. One environment will reside in the Oracle Cloud in an Arizona data center and the second environment will reside in the Fadian data center. Toward the end of the project implementation, GWA will determine whether the production environment will reside in the Cloud or on-premise at Fadian. The disaster recovery environment will be located at the other location. The disaster recovery design will guarantee a Recovery Point Objective of 1 hour or less. The data replication between the production and backup environment is estimated to be a 15-minute delay.

The proposal to modernize the GWA Enterprise Resource Planning system is Five Million Two Hundred Eighty-Six Thousand Three Hundred Eighty-Five Dollars ($5,286,385). GWA received a $500,000 grant and will apply for an additional grant in April 2020 from the Office of Insular Affairs Technical Assistance Program. The terms of the grant require GWA contribute not less

than a 50% cost share toward the project. The non-grant funding source for the project is from bonds, internally CIP and revenue funds.

The estimated project length is approximately seven months after PUC approval. If the contract is approved as part of the February 27, 2020 docket then the completion date would be January 2021.

GWA was directed by Oracle to work with DXC Redrock, the only Oracle Platinum Partner contractor in the Western Pacific with a proprietary pre-built JDE E1 configuration and implementation plan for engineering and construction firms, to upgrade to E1. In December 2018, a sole source procurement was awarded for first phase of the E1 upgrade implementation labeled the "Discovery Phase." The Discovery Phase included defining scope for both a technical and transformational upgrade and provided several key project planning deliverables including pricing. In October 2019, DXC Red Rock provided pricing for their proprietary product Red Projects to implement a transformational upgrade that could be completed within (7) seven months.

Comm. Sanchez motioned to approve Resolution 13-FY2020 second by Comm. Guthertz. There was no further discussion or objection and the motion carried. The vote was unanimous.

4.4 <u>Resolution No. 16-FY2020 Relative to Approval of Change Order No. 2 for the Route 4 Relief Sewer line Rehabilitation and Replacement Projects S15-006-EPA</u>

The objective of this project is to improve the sewer collection system, which included repairing and/or replacing sewer manholes and over 4,200 linear feet of gravity sewer line along Route 4 and Route 1 in the village of Agana. These sewer infrastructure elements have been identified by GWA, through an SSES investigation, to be subjected to either inactivity due to incomplete construction work or excessive infiltration and inflow (I&I). 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. 2 is necessary to avoid costly delays in the Cured-In-Place-Pipe (CIPP) lining work by the 2nd contractor on this project (Insituform) by accelerating work to resolve infiltration at manholes ahead of the scheduled manhole rehabilitation. Until the infiltration at the manholes is resolved, the lining work cannot happen. There is the potential for liner failure if the CIPP does not cure properly due to the heavy infiltration that this change order will address. Additionally, there is an existing concrete plug at SMH-6897 that needs to be removed to allow that segment of pipe to be lined ahead of when SMH-6897 is scheduled to be rehabilitated. Manhole rehabilitation cannot happen until after lining is completed due to the potential damage of the interior epoxy coating in the manholes from the high heat during the liner curing process.

This project is located along Route 4 and Route 1, from the in front of Vons Chicken in Agana to the Agana Main Pump Station. Construction activities will be limited to the government easements of the sewer infrastructure elements.

The total cost of Change Order No. 2 comes out to the amount of One Hundred Eleven Thousand Eight Hundred Eighty-One Dollars and Thirty-Five Cents ($111,881.35), of which Sixty-Four Thousand Twenty-Four Dollars and Sixty-One Cents ($64,024.61) will come from the remaining

contingency funds. The funding for this project will be from USEPA SRF Grant Funds and, if necessary, GWA Bond Funds with a maximum project budget of Three Million Seven Hundred Ninety-Six Thousand Four Hundred Eighty-Nine Dollars and Fifty-Four Cents ($3,796,489.

GWA Management seeks CCU approval of PPBC's proposal for accelerated construction services in the additional funding amount of Forty-Seven Thousand Eight Hundred Fifty-Six Dollars and Seventy-Four Cents ($47,856.74), to bring the total authorized funding amount to Three Million Seven Hundred Ninety-Six Thousand Four Hundred Eighty-Nine Dollars and Fifty-Four Cents ($3,796,489.54).

The accelerated construction work associated with Change Order No. 2 is estimated to be completed by March 2020.

Comm. Sanchez motioned to approve Resolution 16-2020 second by Comm. Guthertz. There was no further discussion or objection and the motion passed. The vote was unanimous.

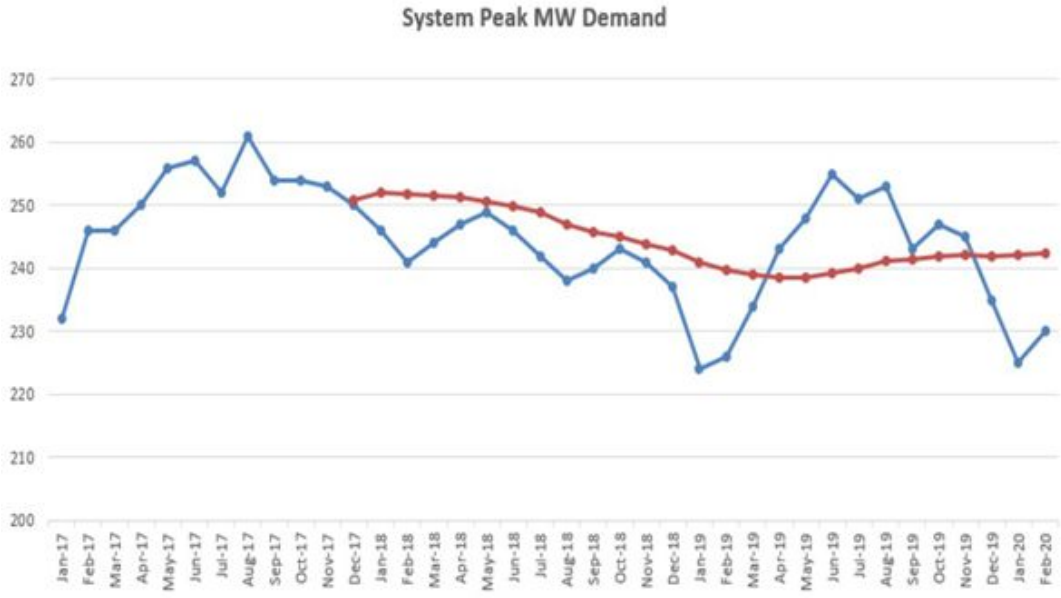
5. GPA

5.1 <u>GM Report</u>

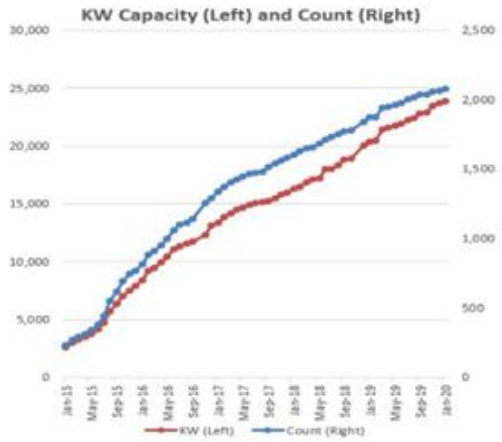
1. **Generation System:** The following is the generation forecast for March 2020:

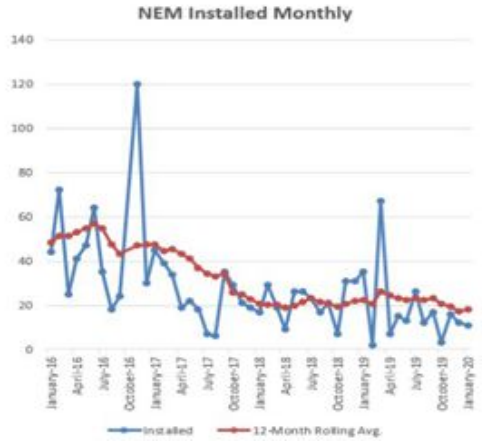
Projected Available Capacity:	321 MW
Projected Demand:	238 MW
Anticipated Reserve Margin:	83 MW

Cabras Unit 2 to undergo 35 days overhaul from March 15th thru April 18th

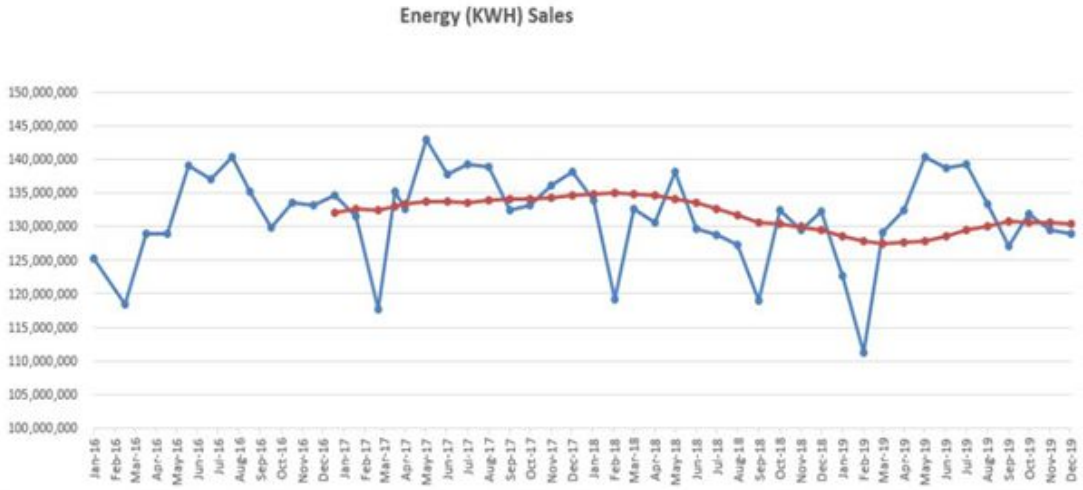


2. **Net Metering (NEM) Growth Thru January 2020:**





3. **Energy Sales Thru December 2019:**



4. 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 1/31/20	Total to Date
Regular/OT Pay	$11,348.80	$22,256.00	$26,121.83	$50,715.19	$11,519.27	$121,961.09
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	$274,575.00	$3,711,025.00
Paid Rebates-Central AC	$3,400.00	$8,200.00	$4,400.00	$6,500.00	$1,000.00	$23,500.00
Paid Rebates-Washer/Dryer	$2,800.00	$7,425.00	$57,200.00	$110,800.00	$23,200.00	$201,425.00
Total Expenses	$200,527.30	$680,706.05	$1,554,524.33	$1,553,190.19	$311,794.27	$4,300,742.14
Bank Interest (+)	$1,676.42	$1,722.74	$1,222.29	$730.05	$127.57	$5,479.07
Bank Fees	$155.00	$1,032.06	$1,085.08	$1,247.54	$145.00	$3,664.68

5. **PUC DOCKETS**
   - **Docket 20-04:** Cabras PMC Bid Invitation was approved. GPA issued a Multi-Step Invitation For Bid (MS-RFP); award recommendation to CCU & PUC targeted for June 2020
   - **Docket 20-03:** LEAC Filing; Approved at $0.134/kWh

6. **AWARD OF RENEWABLES PHASE III**
   - GlidePath's appeals of GPA's intent to award to ENGIE is before the OPA. The formal hearing begins on March 25th.

7. **USEPA CONSENT DECREE**
   - The USEPA filed the complaint and proposed consent decree in federal court on Thursday, Feb 7, 2020. The proposed consent decree now undergoes a 30-day public comment period (from February 12, 2020 to March 13, 2020) after which the federal judge will rule on the decree. CCU/GPA held a press conference on the announcement on Monday, Feb 10, 2020.

8. **UKUDU POWER PLANT UPDATE**
   - KEPCO and GPA/Stanley Consultants continue to prepare and pursue the required environmental impact assessments and permits required before KEPCO can complete project financing. The financial close is targeted for this summer.

9. **ENERGY STORAGE SYSTEM (ESS) UPDATE**

   - The testing of the 40 MW ESS at the Talofofo and Hagåtña substations are scheduled to begin at the end of this month. A third party commissioning team is arriving to oversee the testing. Once commissioned the ESS will help mitigate most of the under frequency outages caused by the tripping of conventional generation and the quick ramp down by Solar PV systems. The ESS system will improve system power quality and decrease spinning reserve cost.

   - Details as follows:
     - $35M funding thru GPA 2014 Bond Issuance
     - Frequency Control Unit 40MW / 10 MWH System
     - Battery Life under 20 Year Warranty
     - LG contracted to provide O&M services over the next 20 Years
     - The 40MW is located at two sites: Hagatna 24 MW ESS and Talofofo 16 MW ESS

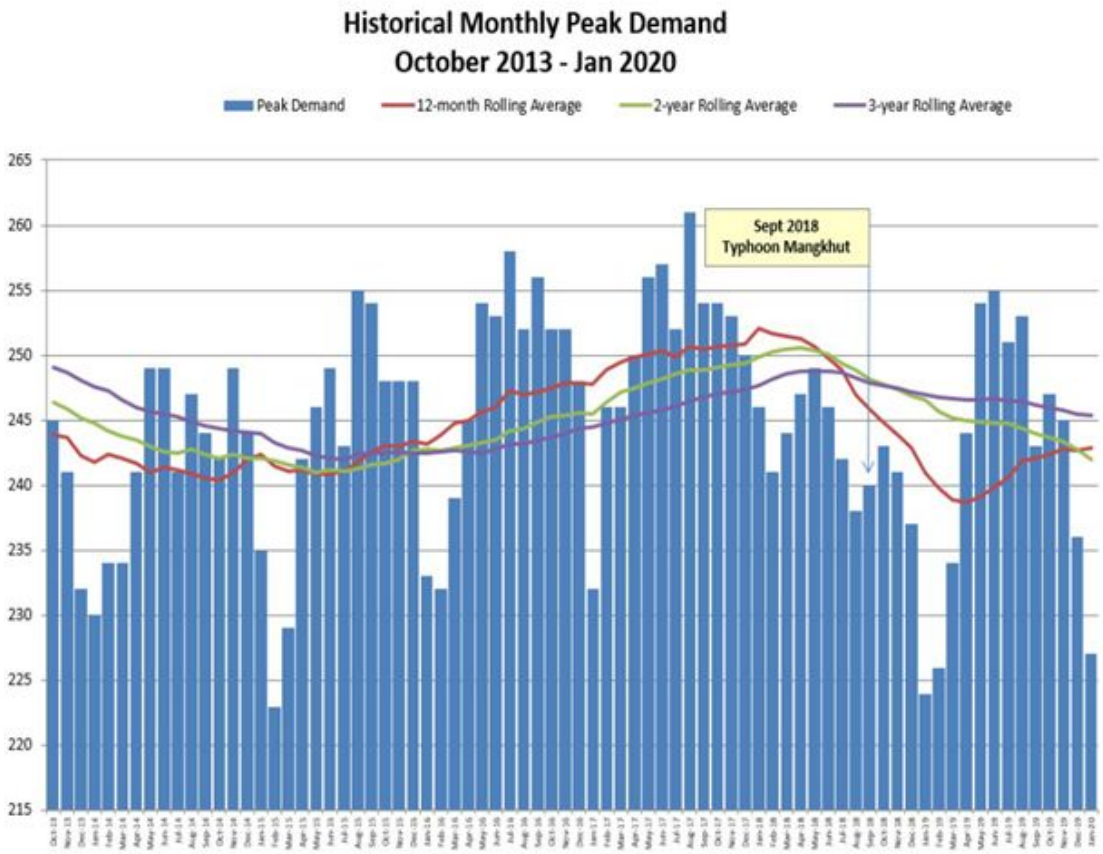
   - The following are pictures of the Hagatna 24 MW and the 16 MW Talofofo Energy Storage System:

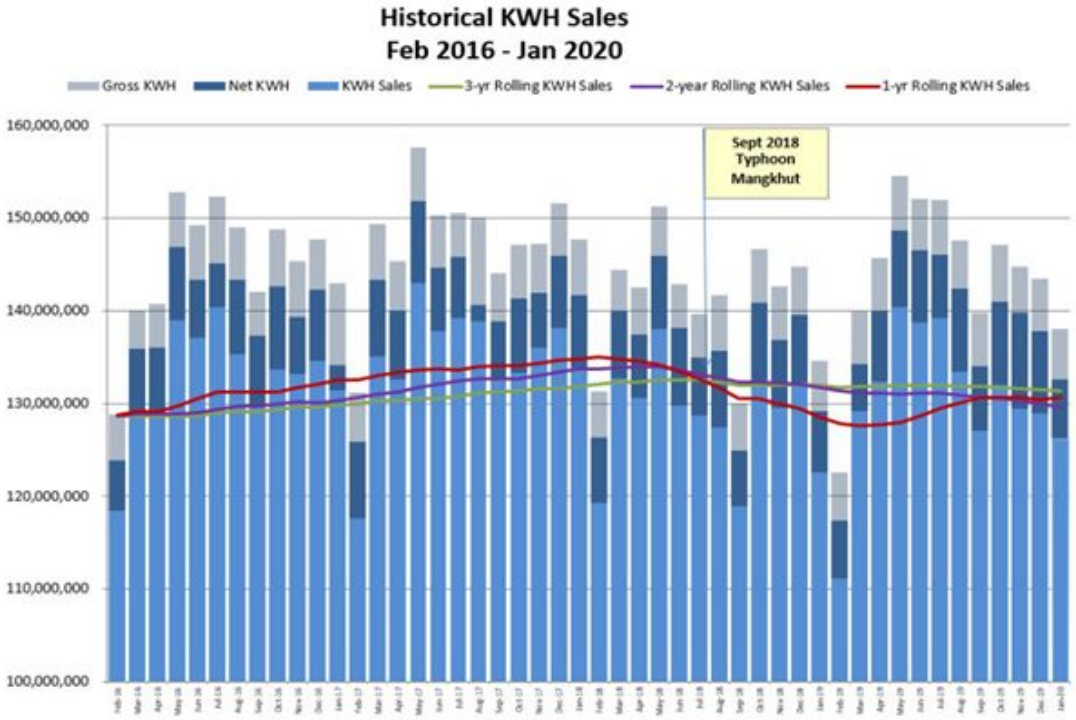
     No pictures available.

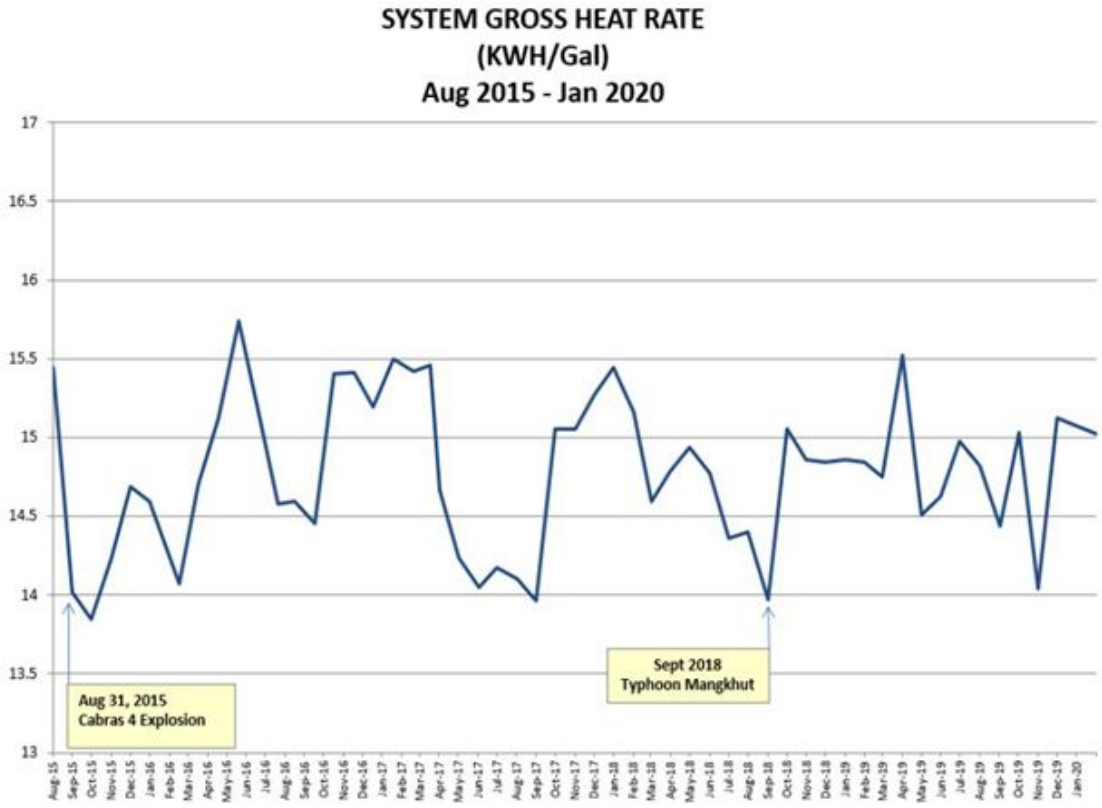
10. LEGISLATIVE ACTIVTY

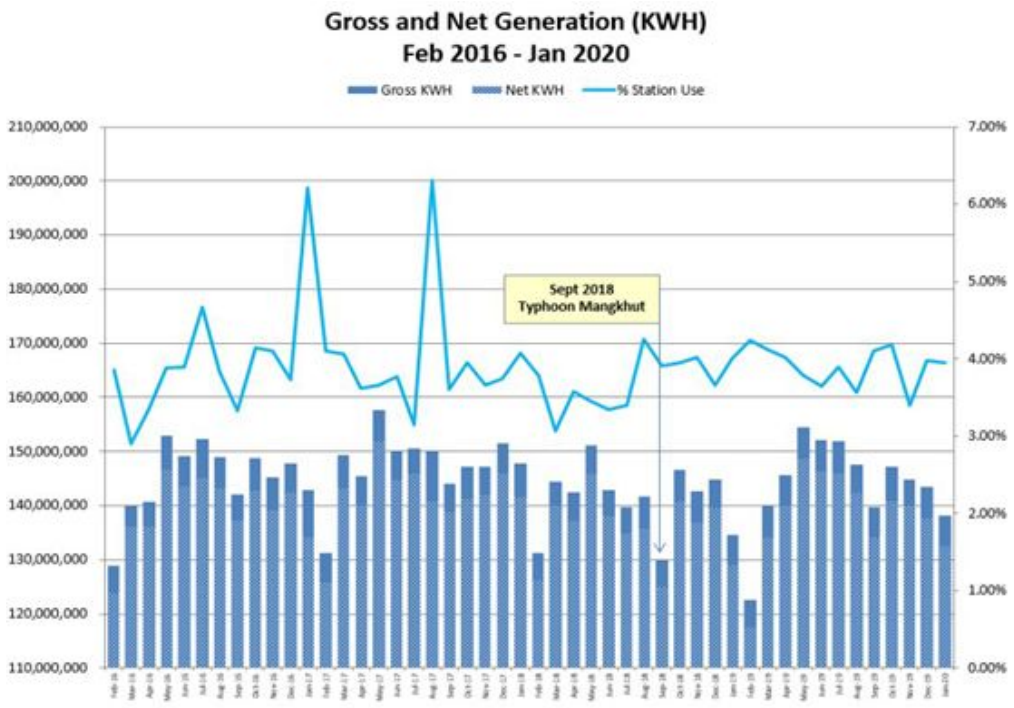
- Bill 196-35: A roundtable was held by Senator Nelson related to providing procurement authority to GDOE to directly procure for Solar PV systems for public schools. I participated in the roundtable discussions and provided testimony with specific recommendations concerning GPA's involvement (attached).
- Bill 219-35: Senator San Agustin held a public hearing on the proposed legislation that would to provide GDOE and other educational institutions (GCC, UOG, charter schools, etc.) similar procurement authority and establish solar PV program rules. I attended the roundtable and provided testimony on the proposed bill. Senator San Agustin has requested for proposed revisions to the bill, as introduced.

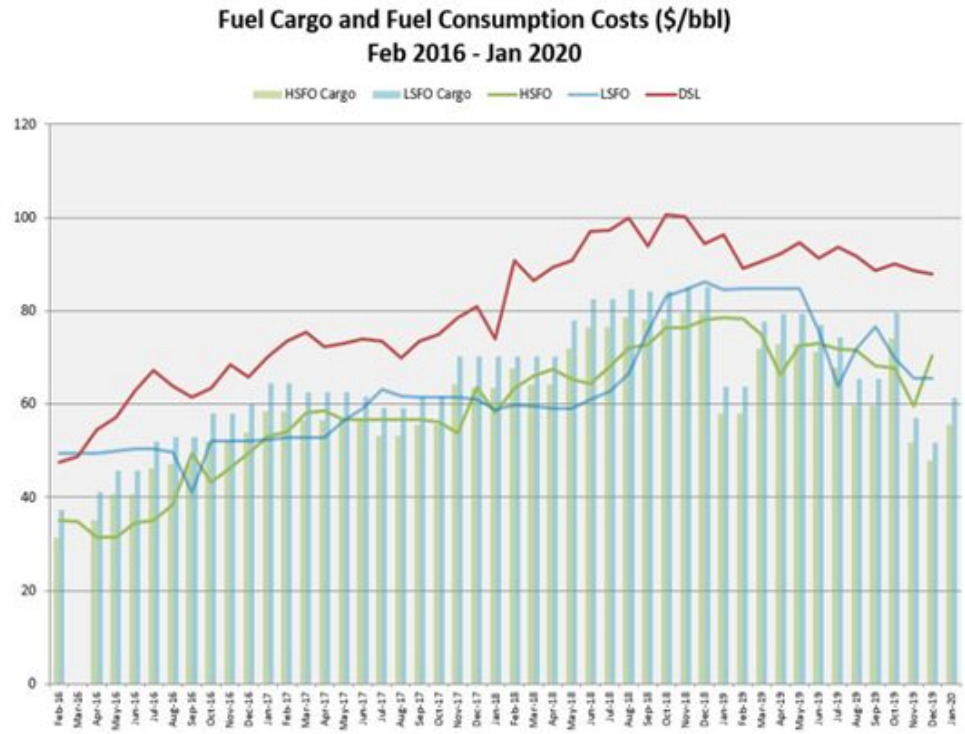
11. The following graphs show the updated system information:




Historical KWH Sales
Feb 2016 - Jan 2020
Gross KWH
Net KWH
KWH Sales
3-yr Rolling KWH Sales
2-year Rolling KWH Sales
1-yr Rolling KWH Sales
160,000,000
150,000,000
140,000,000
130,000,000
120,000,000
110,000,000
100,000,000
Sept 2018
Typhoon
Mangkhut


SYSTEM GROSS HEAT RATE
(KWH/Gal)
Aug 2015 - Jan 2020
17
16.5
16
15.5
15
14.5
14
13.5
13
Aug 31, 2015
Cabras 4 Explosion
Sept 2018
Typhoon Mangkhut


Gross and Net Generation (KWH)
Feb 2016 - Jan 2020
Gross KWH
Net KWH
% Station Use
Sept 2018
Typhoon Mangkhut
210,000,000
200,000,000
190,000,000
180,000,000
170,000,000
160,000,000
150,000,000
140,000,000
130,000,000
120,000,000
110,000,000
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%


Fuel Cargo and Fuel Consumption Costs ($/bbl)
Feb 2016 - Jan 2020
HSFO Cargo
LSFO Cargo
HSFO
LSFO
DSL
120
100
80
60
40
20
0

5.2 Financials – Not discussed.

5.3 Resolution 2020-01 NEM Policy Requiring Installation of ESS for New NEM Solar PV & Wind Turbine Customers

Guam Public Law 27-132 (December 2004) created Net Metering for Guam and assigned the Guam Public Utilities Commission (PUC) the responsibility for setting the Net Metering Rate for excess renewable energy fed into GPA's Distribution System. NEM customers receive services from the grid subsidized by non-NEM customers including but not limited to:

1) Use of the grid to sell power (get credit at full retail rate for excess production);
2) Use of the grid to energize their homes at night, but credited back from their production (uses GPA Grid as storage);
3) Frequency regulation absorbed by grid for intermittencies;
4) Reactive power supply;
5) Voltage regulation;
6) Stand-by power on overcast days when the sun does not shine.

Solar PV production is intermittent and would require an accompanying energy storage system such as a battery or Frequency Control Capability to provide smooth energy into the customer premise or power grid. A 25 MW utility scale solar PV farm and an estimated 24 MW of net metering capacity tied in to the grid without ESS or Frequency Control Capability, resulting in significant intermittency which degrades the reliability of the island wide power system (IWPS). Production graphs of the utility-scale Dandan solar PV farm during several consecutive weeks of rainy weather, aptly illustrates the solar PV production is inconsistent and requires substantial battery storage reserves.

The number of automatic under-frequency load shedding events have increased substantially over the past few years due to intermittency of solar PV tied into the island's power grid. As of October 31, 2019, GPA customers experienced 27 feeder trips or outages due to solar PV systems without ESS or Frequency Control Capabilities. Although, the pending utility-scale 40 MW ESS will control system frequencies and decrease these outages, the addition of more intermittent energy into the grid will continue to degrade system reliability. GPA cannot continue to add intermittent energy production into the grid without requiring all future customer owned solar PV and wind turbine systems to also have ESS or Frequency Control Capability. GPA could provide Energy Storage System (ESS) into the grid at low cost due to its opportunities through economies of scale.

GPA recommends that new utility-scale, and NEM solar PV and wind turbine systems must have ESS or Frequency Control Capability after **June 01, 2020**, in order to be tied into island power grid. However, GPA will petition the PUC to create an Energy Storage Rate Schedule, a new NEM customer may select the new Rate Schedule in lieu of providing ESS or Frequency Control Capability.

GPA recommends the initial Energy Storage Rate Schedule be set at $2.43 per kW per month, as installed. These moves will actually continue to promote the development of renewable energy on Guam and give choices and flexibility to the individual in a way that is in their best economical interest.

GM Benavente said that this process began in November and we have done many outreach program / presentation over the past few months to educate the consumer why it is needed. He said this is needed to ensure that the reliability of the system is maintained. GPA currently has about 49 MW or 25% energy intermittency.at this time. The new energy storage system will be tested in March and will improve the system. He does not want to see a degration due to non controlled intermittency, He recommends that all NEM customers have frequency controlled capability or batteries after June 1, 2020. GPA can provide this and GPA can provide this at low cost – less than 2-cents per kWh.

Comm. Sanchez motioned approve Resolution 2020-01 second by Comm. Guthertz.

In discussion it was discussed that addition to resolution include petitioning PUC and choices and flexibility for customers according to their financial capability and the extension for implementation in June 1st.

Comm. Duenas recommended to amend line 76 to add "GPA to "authorize" petition of the PUC"

Comm. Sanchez motioned to approve the amendment of line 76 second by Comm. Guthertz.

On the amendment there was no further discussion or objection and the amendment passed with 5 ayes

On the main motion as amended there was no further discussion or objection and the resolution passed. The vote was unanimous.

5.4 <u>Resolution 2020-05 Cost of Service Change of Rate</u>

As a Public Corporation and an enterprise fund it is expected that GPA will set its rates in a manner that will cover the costs of operation of the Authority. The rates of the Authority are subject to regulation by the Public Utilities Commission (PUC). Condominium customers are currently charged under Rate Schedules G (General Service Non-Demand), J (General Service Demand), or P (Large Power Service). Several condominium owners, occupants and representatives thereof seek to apply Rate Schedule R (Residential Service, for single phase service metered dwellings) to condominium customers.

The PUC has requested a recommendation from GPA and CCU on the petition before them to provide residential rates for condominium homes. GPA seeks an equitable rate plan which reflects actual cost of service. The Authority is to file a petition to create a rate for condominium with master meter servicing multiple dwelling units not individually metered, and amend Rate Schedule R to include three phase service metered single family dwellings.

The proposed tariff will be available for condominium buildings in service or within the active building permit process as of the approved date of the tariff by Public Utilities Commission. Some condominium customers might not wish to change their Rate Schedule (G, J or P). A customer shall be given a one-time option to elect to transfer to Rate Schedule D.

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

GM Benavente said in the past, condos were built with one master meters and does not allow for individual meters; GPA moving towards policy of individual meters. Rationale - it promotes energy conservation and energy savings allowing individual to control it's on usage

Management has been working on discussions relative to language because there are phrases that conflict such as to Multi-dwelling vs. condominium or apartment vs. condominium. GM recommends to give this more thought.

Comm. Sanchez motioned to approve Resolution 2020-05 second by Comm. Guthertz.

In discussion Comm. Sanchez asked of one has a 6 unit apartment with a single meter do they qualify for this rate and the CFO said yes. It was mentioned that management is not aware of any apartments that exist with a master meter. In the future any multi-family dwellings must apply for individual metes.

Comm. Guthertz asked how many buildings have single master meters for everything. The CFO said about 20.

On the motion there was no further discussion and the motion passed unanimously.

5.5 <u>Resolution 2020-06 Contract for Bulk Supply of Residual Fuel Oil NO. 6</u>

The Guam Power Authority's current contract for Supply of Residual Fuel Oil No.6 for the Baseload Plants is expiring in August 31, 2020. The fuel supply contract is necessary to provide uninterrupted supply of fuel for the Baseload plants namely Cabras 1&2 and MEC 8&9

The 2-year contract is estimated to exceed $1.5M requiring prior approval from the PUC and will be funded with fuel revenue funds.

The contract is planned for an initial period of three (3) years to commence on or about September 01, 2020 and to expire on August 31, 2023, with the option to extend for two (2) additional one-year terms. The IFB solicitation will commence after CCU and PUC approval.

Comm. Sanchez motioned to approve Resolution 2020-06 second by Comm Limtiaco. There was no further discussion or objection and the motion passed. The vote was unanimous.

6. OTHER DISCUSSION - None

7. ANNOUNCEMENTS

7.1 <u>Next CCU Meetings</u>

The Chairman announced that the next meeting would be a GWA Work Session on March 17, a GPA Work Session on March 19. The regular monthly CCU meeting is on March 24.

The Chairman called for a 5-minute recess before executive session. It was 6:01 p.m.

After recess GWA Counsel Kelly Clark made recommendation to move the meeting to Executive Session. It was 6:10 p.m.

8. EXECUTIVE SESSION

8.1 Litigation Matter

8.2 Personnel Matter

After executive session there was discussion about outcomes of executive evaluations and how to move forward re discussion of such in open session and pros and cons of such action. The Commission is trying to determine best practice that can be adopted and that is also within the guidelines of open government law. Their goal is to develop and adopt a policy. Also discussed is the proposed rating system – satisfactory, unsatisfactory etc. It was mentioned that KPI's should be tied into performance evaluations. The discussion also included the definition of "personnel matter". Comm. Duenas mentioned that we have an attorney and we should listen to our attorney. Legal Counsel Guerrero said you cannot discuss personnel matter in open session because you can be subject to a law suit Comm. Limtiaco asked counsel about personnel matters. If there was a metrics that is already being discussed in open session i.e. in the GM reports which is a clear measurement of how a person is performing how are we not able to discuss this in public as part of their evaluation? At the end of the discussion Counsel was asked to do more research re "personnel matter", "liability" and "employment" and return with an opinion for the CCU and the Commission will go from there. Counsel was asked to also look into the Collective Bargaining Law to see if there is any information there that can be helpful.

9. ADJOURNMENT

There being no other business to bring before the Commission, the meeting adjourned at 6:50 p.m.

\\s\\
Bls

Attested

_____ _____

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
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., January 28, 2020

MINUTES

1. CALL TO ORDER

The CCU Chairman called the regular meeting of January 28, 2020 to order at 5:34 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:

Vangie Lujan	Compliance / GWA
Ron Topasna	Operations / GWA
Paul Kemp	AGM Compliance & Safety / GWA
Brian Hess	GWA
Gilda Mafnas	Asst. CFO / GWA
Tom Cruz	Chief Engineer / GWA
Mauryn McDonald	Engineering / GWA
Patti Diego	Communications / GPA
Vien Wong	IT Support / GPA IT
Rick Peredo	IT Support / GPA IT
Joyce Sayama	Mgmt. Analyst / GPA Ex.Office
Antoinette Acfalle	Legal Secretary / GWA Ex.Office
Lou Sablan	Board Secretary / CCU

Guests:

Nestor Licanto	KUAM News
Ann Marie Muna	AM Insurance
Fred Horecky	PUC

2. APPROVAL OF MINUTES

The Minutes of August 27, 2019 and September 4, 2019 were presented for approval.

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

The Chairman announced a change on the Agenda and GPA will present first.

3. COMMUNICATIONS

3.1 <u>Public Comments</u> - None

4. GWA

The Chairman called for a 5-minute recess before going into GWA business; it was 6:35 p.m. The meeting was resumed at 6:41 p.m.

4.1 <u>GM Report</u>

GM Bordallo gave his usual GM Report.

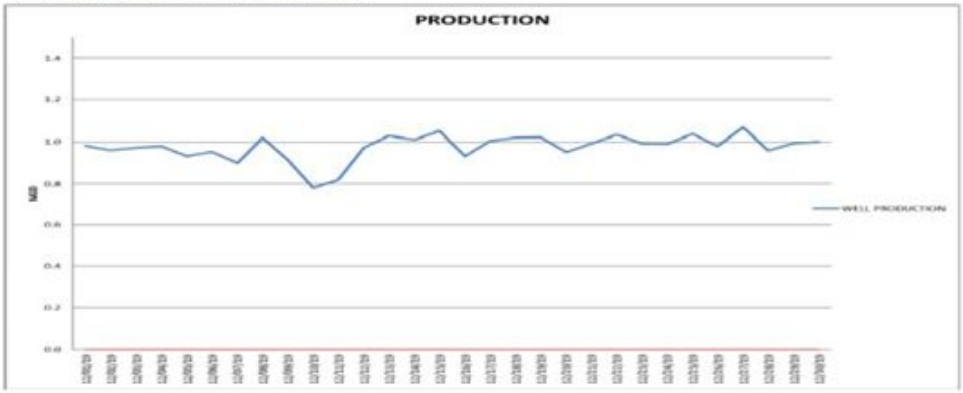
Operations Update

Production (December 2019)

Monthly Production Summary - December 2019				
Deep Wells			35.7	MGD
Active wells =	99	of 120		
Avg days in operation =	31	days		
Total Production =	1,108,046	Kgals		
Springs			0.51	MGD
Avg days in operation =	31	days		
Total Production =	15,953	Kgals		
Ugum Surface Water Plant			2.3	MGD
Avg days in operation =	31	days		
Total Production =	72,019	Kgals		
Tumon Maui Well			0.98	MGD
Avg days in operation =	31	days		
Total Production =	30,280	Kgals		
	1,226,298	Kgals	39.6	MGD

DW Status as of 12/31/2019		
Active	99	
Grounded motor or Pump Failure	6	A26-D03-D08-D20-F06-M17B
Out of commission	8	A02-A07-A28-D05-D13-M14-MU01-MU05
Temporarily Secured	3	A23-A25-F10
Standby	4	A10-A29-F16-M12
TOTAL	120	

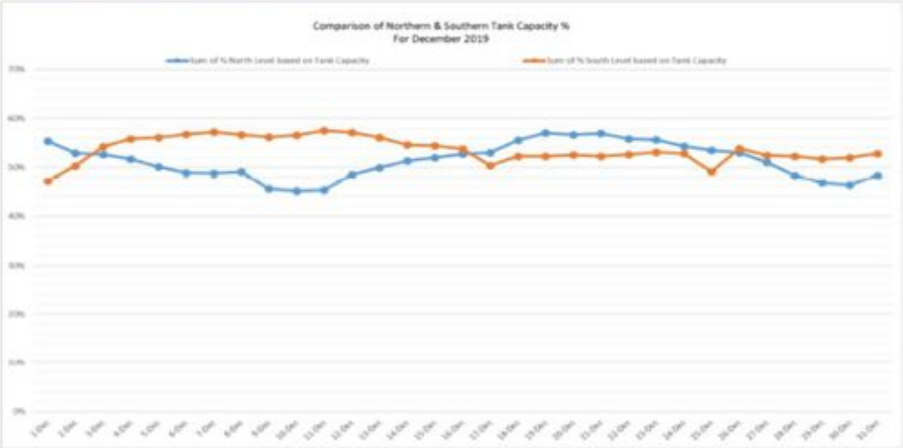
Tumon Maui Well Production (December 2019)



Distribution (December 2019)

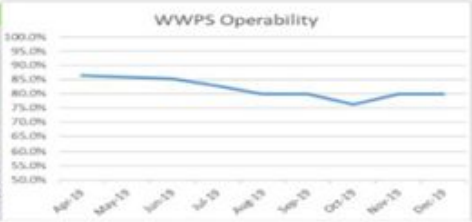
Monthly Distribution Summary - December 2019					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	13	26	25	96.2%
	Central	7	15	15	100.0%
	Southern	7	15	15	100.0%
		27	56	55	98.2%

Distribution – Tank Levels (December 2019)



Wastewater Collections (December 2019)

Monthly Collections Summary - December 2019					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	41	78.8%
	Central	29	63	53	84.1%
	Southern	27	58	49	84.5%
		78	173	143	82.7%



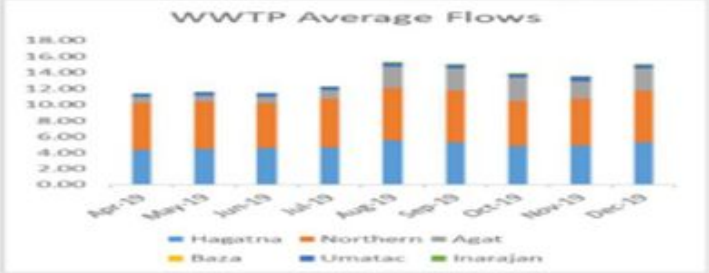
	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Target	5	5	5	5	5	5	5
Total Actual Miles	7.6	6.6	5	5	4.4	2.4	0.65

Wastewater Collections –Cleaning/Jetting (December 2019)

Anigua / Agana - Cleaned Line Areas

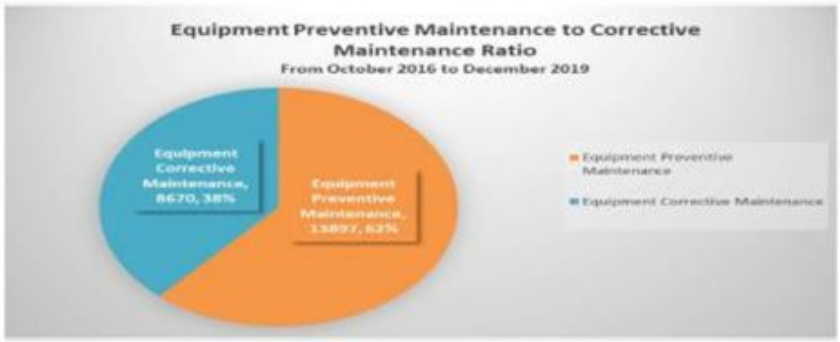
Wastewater Treatment (December 2019)

Monthly Wastewater Treatment Summary - December 2019				
WW Treatment Plants - Flows				
	Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. ($)
	Hagatna	5.30	501,020	$ 45,092
	Northern	6.41	911,480	$ 82,033
	Agat	2.8	86,360	$ 7,772
	Baza	0		
	Umatac	0.39		
	Inarajan	0.15		
		15.05	1,498,860	$ 134,897

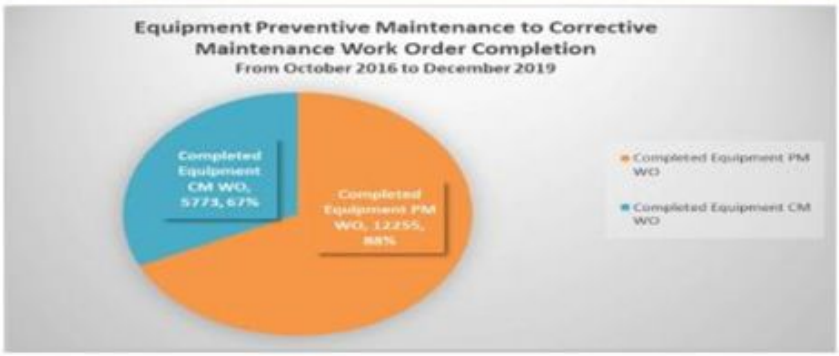


Asset Management (December 2019)

I. Equipment Preventive Maintenance to Corrective Maintenance *Ratio*

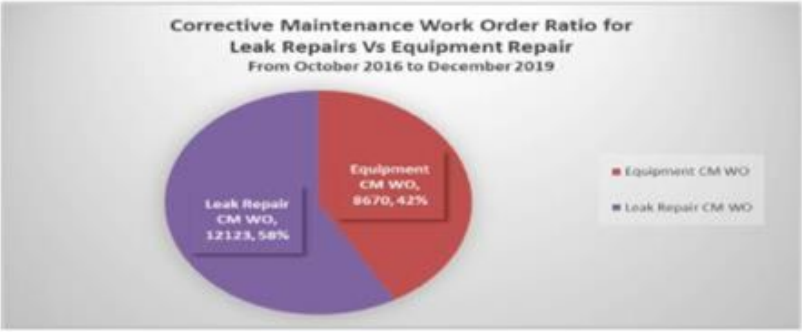


II. Equipment Preventive Maintenance to Corrective Maintenance *Work Order Completion*

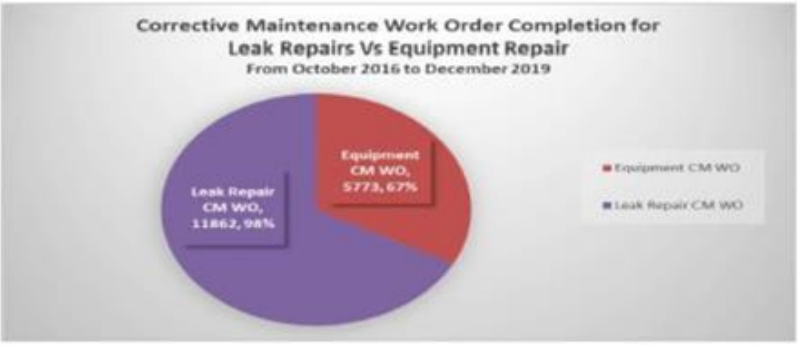


Asset Management (December 2019)

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

- Managed major break in Yigo near Simon Sanchez H.S. on an undocumented main line across school grounds; five (5) wells secured to control flows for repairs; reservoirs were maintained despite problem isolating this unknown line.
- Tropical Storm Kammuri:
  - Ugum was secured during heavy rains;
  - Power outages affected several pump stations and deep wells; rovers responded throughout the storm to address re-sets.
  - Santa Rosa BPS had generator issues, no water in that area for a short period (5-6 hrs)
- Problems with line breaks on older ACP lines in
  - Casimiru (Nov)
  - Tai, Mangilao (Dec)
  - Pago Bay 2x (Dec)

Wastewater Collection & Treatment

- Tropical Storm Kammuri:
  - Baza Gardens pump station had power issues during storm, EQ tank filled
  - Southern ejector stations (no permanent generators) were affected by power outages; no issues reported
  - FEMA PS had electrical issues; trucks used to control flows
  - Barrigada SMH SSO (Wendy's) due to heavy rains
- Collection System:
  - Route 2 project final lateral connections being made
  - Route 1 and Route 4 projects still in progress; traffic impacts are on-going
  - Route 3 and Route 9 interceptor work is about 56% complete
- Hagatna WWTP
  - Two clarifiers awaiting parts for repairs; plant operating satisfactorily on one clarifier
- Umatac-Merizo
  - Project completed, pending minor scope items delayed due to presence of Moorehen
  - Ribbon cutting being held in January
- NDWWTP
  - Major excavation work for clarifiers and ditches on-going
  - Water supply issues continue until lines in the area are upgraded

Meters from January 2017 through December 2019

COMPLETED FIELD ACTIVITY JAN 2017 THRU DEC 2019 (POSTED IN CIS)	2017	2018	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	TOTAL:	COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Meter Exchange	6487	13353	158	140	444	1583	1212	922	862	455	1516	682	1794	1082	30690	242

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	6079	12259	937	730	518	1231	1135	621	643	470	731	1158	619	485	27616
# OF FIELD CREW PERFORMING CHANGE OUTS (MON THRU FRI)	19.4	16.1	1	1	10	8	7	7	7	7	9	7	7	8	
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CI	10	6.3	0	0	4	9	6	6	7	6	6	6	5	5	
TOTAL:	29	22	1	1	14	17	13	13	14	13	15	13	12	13	

REMAINING ACTIVE BADGER LP MODELS TO BE REPLACED AS OF Dec 31 2019: **2716**

3/4" BADGER METERS IN STOCK AS OF JAN 13 2020:

Size	Meter Description	New Meters Passed	New Meters Untested	Passed Field Meters	MMP	Meters Available
3/4"	METER, Badger AMR 5/8" X 3/4" RCDL Model M25 Disc Meter	1122	570	76	0	1768
3/4"	METER, Badger AMR 5/8" x 3/4" ***WARRANTY** RCDL Model M25	0	0	0	0	0
3/4"	METER,Badger 5/8"x3/4" NSF61-G RCDL M25LL Disc Meter Integral	293	0	7	0	300
3/4"	METER, Badger AMR 5/8" x 3/4" RCDL Model M25 ***RMS***	0	0	0	0	0
3/4"	METER, Badger E-SERIES 5/8"X3/4" ULTRASONIC	975	0	0	0	975

Backbilling through December 2019

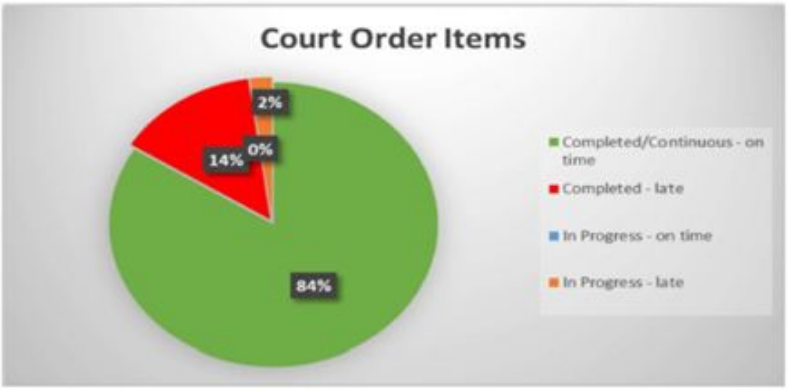
Guam Waterworks Authority
Collections Report[1] on Accounts Backbilled thru December 31, 2019
For fiscal years 2015, 2016, 2017, 2018, 2019 and 2020

Accounts Billed			Collection Status											
			Amounts Collected[1]			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%	45	59,378	8%	62	68,495	9%	47	39,768	5%
FY2019	8,327	$ 3,064,384	7,535	2,416,858	79%	107	95,121	3%	509	385,794	13%	176	166,611	5%
FY2020	575	$ 159,039	212	25,530	16%	6	1,631	1%	350	129,921	82%	7	1,957	0%
Total	10,830	$ 4,363,864	9,456	$ 3,340,500	77%	172	$ 177,098	4%	945	$ 614,043	14%	257	$ 232,223	5%

[1] Collections thru January 10, 2020

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	78	2	13	0	97.8%



One Guam Update

- Santa Rosa Tank
  - No update on AAFB response to request for data substantiating operational improvements.

- OEA Projects
  - Coordination on-going for remaining Rt 3 / RT 9 Interceptor work, access to South Finegayan areas
  - Close to resolving issues with two new monitoring wells sites being affected by MILCON projects;
    - Yigo well – Issues resolved with regard to access.
    - Marbo well – adjustment of well location does not affect clearances for site; Navy assisting with possible protective measure for nearby traffic

- Property Transfers:
  - BPM-1 Monitoring Well: Property was transferred twice; waiting on Navy determination on course of action
  - Cabras waterline: pending completion of Navy CIP replacement
  - Murray Road Sewer Infrastructure: with installation for approval prior to D.C. approval
  - ACEORP water tunnel: Inspections conducted; process for transfer is underway

- Marine Cantonment
  - MOU for Tumon-Maui reserved 210 GPM for Camp Blaz
  - Navy/Marine Corps considering additional supply; will advise GWA if needed

Court Order

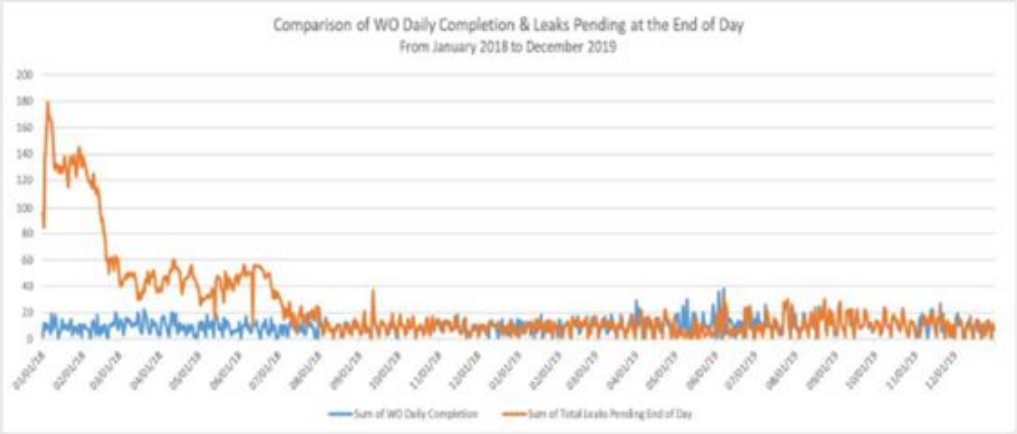
Status Information (for November and December 2019)

- 2 items delayed
  - Water Reservoir Repair. Replacement or Relocation program, CO II C 29(b)(6)(ii)–(all remaining tanks). (Affects final date of the Court Order.)
  - Umatac-Merizo Wastewater Treatment Plant – completed in December; ribbon cutting held in January.
- Final Date to complete all Court Order items may 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).]
- Overflow or Bypass events reported to USEPA:
  - 11-07-2019 Mangilao Mayor's office MH overflow; SSO (FOG)
  - 11-21-2019 Tai Mangilao PS Wet Well overflow. (airlocked pump)
  - 11-25-2019 Pas Street, Tamuning; MH overflow. (FOG)
  - 11-27-2019 Vietnam Veterans Memorial, (Rt. 10) Barrigada; SSO (Rain)
  - 11-27-2019 Serenu Ave, Tamuning; SSO (Rain)
  - 11-27-2019 New Chaot pipeline, Sinajana; SSO. (Rain)
  - 11-27-2019 station-13 Umatac-Merizo Influent Pumps; SSO. (Warranty Issue - control malfunction)
  - 11-27-2019, RR Cruz St. Santa Rita WO# 19-11-1394 Hyundai (Tropical Storm Kammuri)
  - 11-27-2019, #199 Aga St. Hyundai (Tropical Storm Kammuri.)
  - 11-27-2019, Chalan Canton Tasi Station PS #17 WO# 19-11-1398 (Tropical Storm Kammuri)
  - 11-27-2019, Chalan Canton Tasi Station by Merizo Church (Tropical Storm Kammuri)
  - 11-27-2019, Baza Garden Pump Station EQ Tank (Tropical Storm Kammuri) (Warranty Issue).
  - 11-29-2019, Jesus Lujan St# 19-11-1397 (Tropical Storm Kammuri)
  - 12-02-2019 Pas Street Tamuning MH overflow
  - 12-14-2019 124 Tun Jesus Crisostomo St, Tamuning SSO – FOG
  - 12-14-2019, Station 12 Force Main Break WO# 19-12-0556 – Aged infrastructure

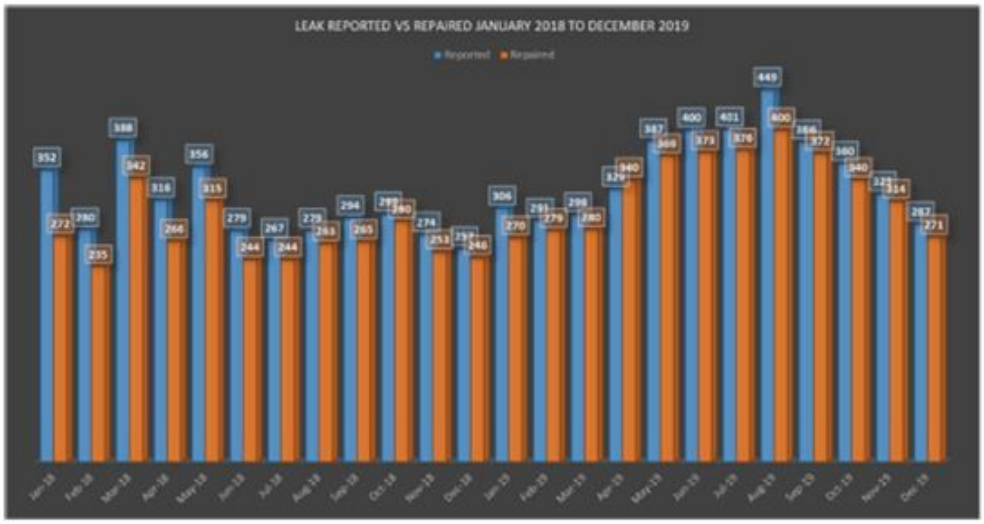
Land Acquisition Summary (as of November/December2019)

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	Pending comments from Federal and GovGuam agencies on Section 106 documents 11/07/19.
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2nd 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	Pending comments from Federal and GovGuam agencies on Section 106 documents 11/07/19.

Leak Repair Summary (December 2019)



Comparison of Leaks Reported vs. Leaks Repaired (December 2019)



Monthly Leak Report Cost (December 2019)

Assumptions:

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

There was a discussion relative to the Stipulation Summary. The GM gave an overview of key factors and milestones that were discussed with PUC consultant Georgetown relative to the Stipulation.

Comm. Sanchez talked about debt service coverage which changed from 1.75 to 1.4 and it says CCU policy has to be revised. He said he does not want to put management in the position where they are dictating to us what our policy should be. The GM clarified that he does not want it to appear that he is dictating to the Board. There was a conflict with PUC vs. CCU policy. Comm. Sanchez said that he is concerned that in the future should the GM bring back to the Commission for input.

In Comm. Sanchez's opinion it is awkward situation when management is negotiating something which ends up making a significant change in policy for the Commission and we may want to think about a way to figure out how to insulate our managers

The GM said his understanding prior to signing the Stipulation was that there never was a resolution approving a Stipulation. In his opinion he was not doing anything that has not been done before. The Stipulation that was signed does not change the policy it only says that GWA is in support of a recommendation to the board to adjust its policy accordingly.

Comm. Duenas does not see this as a policy change. The PUC is the one that will decide if the debt service coverage will be changed. When we do these things the final call is PUC's. The final arbitor is the PUC.

Comm. Simon referred to another example in the Stipulation this one relative to binding GWA to pursue legislation. He said he doesn't think the General Manager intends to usurp the CCU but words mean something.

Comm. Santos said we were not there and that perhaps in the future the Commission should make themselves available.

Comm. Sanchez said he is just voicing his concern for the record.

Comm. Guthertz thanked both Comm. Sanchez and Santos, we got the point and said we should move on.

Comm. Sanchez said he would like to see a sample bill. The GM said he will provide this.

4.2 Financials

It was discussed that the financials were discussed at the GWA work session so it was not discussed again at this meeting.

4.3 Resolution 10-FY2020 Construction Contract for the Tank Repair and Bypass Project

The project's objective is the repair/rehabilitation of eight (8) reservoir locations as mandated by the Order for Preliminary Relief Re: Deadlines for Outstanding Projects Under the Amended Stipulated Order, Paragraph 29. The reservoirs are: Santa Ana, Agat-Umatac, Umatac Subdivision, Pugual Merizo, Malojloj, Windward Hills,Kaiser and Astumbo No. 2 tanks

The reservoirs are under the 2011 Court Order deadline requirements established, and therefore this project is necessary and urgent.

GWA is seeking approval to enter into contract with AIC International, Inc. for the Base Bid work for the bypass and minor repair work on the tanks listed above, and Additive Bid No. 1 (Yigo No. 3 Major Repair). A summary of work for each site under this authorization is presented below.

Santa Ana - *the tank located off Highway 2 in Agat heading South just before the Agat Residential Transfer Station.*

The existing booster pump station onsite will be modified with two new pumps and one new pressure reducing and sustaining valve (PRSV). The modifications are needed to bypass the tank for the inspection and repair. After inspection, the actual repairs will be determined. Minor repairs are covered under the Base Bid. Major repairs are covered under the Additive Bid. If major repairs are required as determined by the inspections, a change order will be negotiated with the Contractor.

Agat-Umatac - *the tank is located off Highway 2 in Umatac heading South before Para I Lalahi Ta Park.*

There is an existing bypass system in place. The tank will be taken offline and inspected. After inspection, the actual repairs will be determined. Minor repairs are covered under the Base Bid.

Major repairs are covered under the Additive Bid. If major repairs are required as determined by the inspections, a change order will be negotiated with the Contractor.

Umatac Subdivision -*the tank is located off Jesus A. Quidachay Street in Umatac heading South uphill from the Umatac bridge. Toguan Booster Pump Station is located off San Dionisio Drive in Umatac heading South downhill.*
The existing booster pump station (Toguan BPS) will be modified with a new pump skid and a new hydro-pneumatic tank. The modifications are needed to bypass the tank for inspection and repair. Minor repairs are covered under the Base Bid. Major repairs are covered under the Additive Bid. If major repairs are required as determined by the inspections, a change order will be negotiated with the Contractor

Pigua Merizo - *the tank is located off Chalan Joseph A. Cruz Street, Highway 4 in Merizo heading South uphill after the Merizo Elementary School. Geus Booster Pump Station is located off Espinosa Avenue, Highway 4 in Merizo heading South at the 3 way-intersection in front of Merizo Shell Gas Station.*
The existing booster pump station (Geus BPS) will be modified with a new pump skid and a new hydro-pneumatic tank. The modifications are needed to bypass the tank inspection and repair. The work will also include a new pressure reducing and sustaining valve (PRSV). Minor repairs are covered under the Base Bid. Major repairs are covered under the Additive Bid. If major repairs are required as determined by the inspections, a change order will be negotiated with the Contractor

Malojloj- *the tank is located off Highway 4 in Malojloj heading South after the Malojloj Residential Transfer Station.*
The existing reservoir inlet and outlet pipping will be modified to bypass the tank for inspection and repair. The work will also include installing a pressure reducing and sustaining valve (PRSV). Minor repairs are covered under the Base Bid. Major repairs are covered under the Additive Bid. If major repairs are required as determined by the inspection, a change order will be negotiated with the Contractor.

Windward Hills - *the tank is located off Camacho Street, Highway 4A in Talofofo heading South after Onward Talofofo Golf Club.*
GWA operations and engineering is currently working on a bypass for the tank site. Cleaning and preparation of the tank for inspection is included in this contract. The condition of tank appears to need major repairs. Under the Additive Bid, major repair items are listed. A change order will be negotiated with the Contactor once the repairs are determined by the inspection.

Kaiser - *the tank is located off Marine Corps Drive in Dededo, heading North before Lucky Supplies.*
Under the Pressure Zone Realignment Phase I construction project, a bypass for the Kaiser tank will be completed. Cleaning and preparation of the tank for inspection is included in this contract. Under the Additive Bid, major repair items are listed. A change order will be negotiated with the Contactor once the repairs are determined by the inspection.

Astumbo No. 2 - *the tank is located off Chalan Palauan street, Y-Sengsong Road in Dededo.*
The major tank repair work involves installing a double bottom tank floor, drip rings to floor chimes, replacing tank shell manway nozzle, replacing tank exterior fill gauge and interior float

system, new tank hatch cover, tank vent and screen, roof guardrails, exterior tank ladder with cage, interior ladder with fall arrest assembly, complete exterior and interior coating, cathodic protection, and miscellaneous repairs.

Additive Bid Work - Included in this Authorization

- Additive Bid No. 1: Yigo No. 3 (formerly named Yigo No. 2 – 2.5 MG) Major Repair

  GWA will seek additional approval from the CCU at a later time for additional Additive Bid Work for major repairs shown below. Major repair work includes new double bottom floor, complete exterior and interior coating, cathodic protection, vent, hatch, ladder, column and base plate repair, and miscellaneous repair items. The items below may be added to the Contract, depending on the findings during bypass and inspection work in the base bid as described above.

  Additive Bid Work – Not Included in this Authorization

  - Additive Bid No. 2: Santa Ana Major Repair
  - Additive Bid No. 3: Umatac Subdivision Major Repair
  - Additive Bid No. 4: Pigua Merizo Major Repair
  - Additive Bid No. 5: Malojloj Major Repair
  - Additive Bid No. 6: Agat-Umatac Major Repair
  - Additive Bid No. 7: Windward Hills Major Repair
  - Additive Bid No. 8: Kaiser Major Repair

The Base Bid and Additive Bid No. 1 proposal submitted by AIC International, Inc. is $4,208,197.00 and $1,194,129.00, respectively. The total requested funding amount is $5,942,559.00. The total requested amount includes a 10% contingency. It will be funded by the water reservoir internal / external corrosion assessment program and the water system reservoir 2005 improvements.

The following are projected completion dates

Site(s)	Completion / Substantial Completion
• Santa Ana • Umatac Subdivision • Pigua Merizo • Malojloj	NTP + 390 calendar days
Agat-Umatac	NTP + 180 calendar days
Astumbo No.2	NTP +270 calendar days
• Windward Hills • Kaiser	Inspection preparation only
Yigo No. 3 Major Repair (Additive Bid No.1)	To Be Determined at C/O Issuance

The GM added that these are Court Ordered projects at 8 locations.

Comm. Santos motioned to pass Resolution 10-FY2020 second by Comm. Guthertz. There was no further discussion or objection and the motion passed unanimously.

4.4 Resolution 11-FY2020 Construction Contract for the Pressure Zone Realignment Construction Phase I Project

The project is spread across seven (7) different sites in the Base Bid – Carnation PRV(s), Okkodo PRV, Ysengsong PRV, Clara PRV, Kaiser PRV(s), Yigo Reservoir, and Astumbo Reservoir

1. Carnation - The existing Carnation pressure reducing valve (PRV) will be replaced with a new PRV, and a new Marbo PRV will also be constructed. The work will also include the construction of a new control building and line upgrades in the surrounding service area. The work is listed in the Base Bid. Carnation and Marbo work will be located near the Route 15 and Carnation Ave. intersection

2. Okkodo - The work will include the construction of a new Okkodo PRV to replace the existing PRV, a new meter in vault, and new control pedestal. The work is listed in the Base Bid.
   Okkodo work will be located along Route 3, up the road from Okkodo High School.

3. Ysengsong - The work will include the construction of a new Ysengsong PRV and line upgrades in the surrounding service area. The work is listed in the Base Bid.. Ysengsong work will take place at the intersection of Ysengsong Rd., Chalan Balako, and Chalan Koda.

4. Clara - The work will consist of constructing a new Clara PRV and line upgrades. The work is listed in the Base Bid. Clara site work will be constructed along Ysengsong Rd., in front of GWA well D-11.

5. Kaiser - The work will consist of constructing a new Kaiser Bypass PRV, Kaiser PRV, new inlet and outlet meter vaults for Kaiser reservoir, a new control building, and line upgrades. The work is listed in the Base Bid. Kaiser PRV work will take place in front of GWA's Kaiser reservoir and at the intersection of Access Rd. and Route 1.

6. Yigo Reservoir - The work will consist of implementing the SCADA system for existing instrumentation. The work is listed in the Base Bid. Yigo and Astumbo reservoir work will take place at the GWA reservoirs for which the sites are named.

7. Astumbo Reservoir - The work will consist of implementing the SCADA system for existing instrumentation. The work is listed in the Base Bid.

This project is necessary in order for GWA to provide the appropriate pressures within the various service areas within its water distribution system. The work is also urgent, being critical to reducing background leaks through pressure control as a means to reduce GWA's non-revenue water, and accomplishes Level-of-Service (LOS) goals as defined in the GWA Water Resource Master Plan.

The bid proposal submitted by Sumitomo Mitsui Construction Co. LTD. is $4,120,000.00. With a 10% contingency of $412,000.00, the total project funding amount will be $4,532,000.00. There will be three (3) funding sources – the water audit program, the master metering program and USEPS grants.

For all sites - Base Bid Substantial Completion: The Contractor shall begin work upon issuance of the Notice to Proceed (NTP) and base bid work shall be substantially complete as specified no later than 305 calendar days from NTP. Final Completion shall be no later than 60 calendar days following substantial completion.

Comm. Santos motioned to approve Resolution 11-FY2020 second by Comm. Guthertz. There was no further discussion or objection and the motion passed unanimously.

4.5 Resolution 12-FY2020 Change Order No. 1 for the Pressure Zone Realignment and Tank Repair/Replacement Design Project

The objective of this change order is to develop a water loss control program based on the island-wide implementation of the District Metered Area (DMA). The design services will include the development of a plan to implement Phase 3 of the DMA island-wide and the construction documents to execute four tested sites that resulted from the DMA conversion reports prepared during Phase 1 and 2. The pressure zone realignment and district metered areas work are complementary.

The following are part of this proposed change order:

1. Task 1: Review of Existing Plans and Models
2. Task 2: Identification of Potential DMAs
3. Task 3: Customer Identification per DMA
4. Task 4: Identification of DMA Infrastructure Requirements
5. Task 5: Prioritization of Proposed DMAs
6. Task 6: Develop DMA Implementation Plan
7. Task 7: Develop Draft Scopes for Implementation Project Contracting Elements

This project is necessary for GWA to improve it control of water losses by establishing proper pressure zones, zone metering, and a comprehensive water loss control program plan to guide GWA towards a properly functioning water system.
The cost for the change order is $373,670.00.and will be funded by Pressure Zone Realignment/ Development 2005 Improvements; Water Reservoir Internal/External Corrosion Rehabilitation Program; Water System Reservoir 2005 Improvements; Water Audit Program and Water Loss Control Plan

This phase of work will be completed within 6 months of Change Order No. 1 approval; however, the date may be adjusted depending on field investigations for the zoning.

Comm. Guthertz motioned to approve Resolution 12-FY2020 second by Comm. Santos. There was no further discussion or objection and the motion passed.

4.6 Resolution 13-FY2020 Re Modernization of the Guam Waterworks Authority Enterprise Resource Planning System

This resolution was tabled until next month. More time was needed to bring cost down.

4.7 Resolution 14-FY2020 Re Fund Increase to the Construction Management Contract for the Route 4 Relief Sewerline Rehabilitation and Replacement Project

The objective of this project is to improve the sewer collection system, which included repairing and/or replacing sewer manholes and over 4,200 linear feet of gravity sewer line along Route 4 and Route 1 in the village of Agana. These sewer infrastructure elements have been identified by

GWA, through an SSES investigation, to be subjected to either inactivity due to incomplete construction work or excessive infiltration and inflow (I&I). Successful completion of this project will result in proper maintenance and operation of the sewer collection system and USEPA agree that efforts to rehabilitate, repair or replace the sewer line are necessary. The construction management services are required for the duration of the project which is expected to be completed in June 2020.

This project is located along Route 4 and Route 1, from the base of the hill near well A-23 in Agana to the Agana Main Pump Station. Construction activities will be limited to the government easements of the sewer infrastructure elements. The construction is estimated to be completed by June 2020.

GWA management is seeking funding increase for the construction management services contract with EMPSCO for an additional not-to-exceed amount of Two Hundred Thirty Thousand Seven Hundred Fifty-Nine Dollars and Sixty-Two Cents ($230,759.62), which brings the total authorized funding to a maximum not-to-exceed amount of Nine Hundred Thirty-Three Thousand Four Hundred Thirty-Seven Dollars and Seventy-Five Cents ($933,437.75). The funding for this project will be from USEPA SRF Grant Funds and, if necessary, GWA Bond Funds with a maximum project budget of Nine Hundred Thirty-Three Thousand Four Hundred Thirty-Seven Dollars and Seventy-Five Cents ($933,437.75).

Comm. Guthertz motioned to approve Resolution 14-FY2020 second by Comm. Santos

In discussion Comm. Limtiaco asked the cause of the delays and the GM said one reason is working hours. The contract allows the contractor only to work during the day. Another reason is a permitting issue – DPW took longer than normal. It was mentioned that there are liquidated damages but management said to expect unforeseen delays and possibly award the contractor an extension and if they go beyond the extension date, the liquidated damages will apply.
On the motion the vote was unanimous and the Resolution passed.

4.8 Resolution 15-FY2020 Issuance and Sale of Guam Waterworks Authority Water and Wastewater System Revenue Bonds, Approving Forms of Related Documents, Agreements and Actions, and Authorizing the Execution and Delivery

In accordance with the CCU-adopted *GWA Five Year Financial Plan and Capital Improvements Program (FY20-FY24)*, GWA requires the issuance of additional bonds to fund needed capital improvement projects which include:

- Projects to complete the 2011 Court Order: $39,550,000
- Projects to address upcoming regulatory priorities which are the subject of on-going enforcement negotiations with US EPA: $38,625,000
- Projects to address reduction of non-revenue water in GWA's water distribution system: $11,637,000
- Other projects needed to address environmental safety and compliance, system capacity, operational efficiency and other requirements: $13,860,000

GWA had intended to obtain all necessary approvals for this bond issuance at the beginning of FY20 in order to meet the schedule requirements of the 2011 Court Order. There have been undue delays in the approval process, and therefore, the need for issuance of the bonds to

obtain funding necessary to complete Court Order related projects is very urgent and necessary.

GWA is also seeking authorization to evaluate/confirm the feasibility of refunding bonds to redeem or otherwise retire outstanding GWA revenue bonds (Series 2013) and, if deemed feasible, subsequently reissue for potential cost savings concurrent with the issuance of new revenue bonds.

The *GWA Five Year Financial Plan and Capital Improvements Program (FY20-FY24)* calls for the 2020 Series Bonds to be issued at a par value equal to GWA's remaining legal authorization for financing at One Hundred Thirty-Four Million dollars ($134,000,000). The Series 2020 Bonds will be funded through the purchase of the bonds as investments through the financial markets. GWA may realize cost savings on debt service for existing Series 2013 bonds should the evaluation of refunding bonds indicate so. Cost savings will be dependent on market conditions at the time of projected issuance.

The Series 2020 revenue bonds, and any refunding bonds, are anticipated to be issued in mid-May of 2020. The CIP projects to be funded with the Series 2020 bonds are scheduled over the 5-year period covered by the *GWA Five Year Financial Plan and Capital Improvements Program (FY20-FY24).* It will provide needed funding outlined in the 5-Year Capital Improvement Program for projects island-wide.

The GM said this resolution is urgent in order to meet the Court Order deadline.

Comm. Sanchez motioned to approve Resolution 15-FY2020 second by Comm. Guthertz.

In discussion Comm. Duenas said he thinks management is doing good relative to time. When the Court Order was being discussed back in 2000, it was mentioned that GWA will try to meet the dates assigned and feels good at our progress and where we are at now.

On the motion, there was no further discussion or objection and the motion passed.

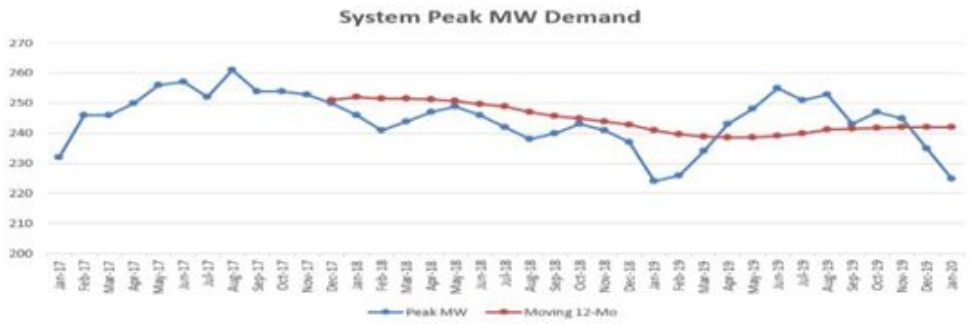
5. GPA

5.1 GM Report

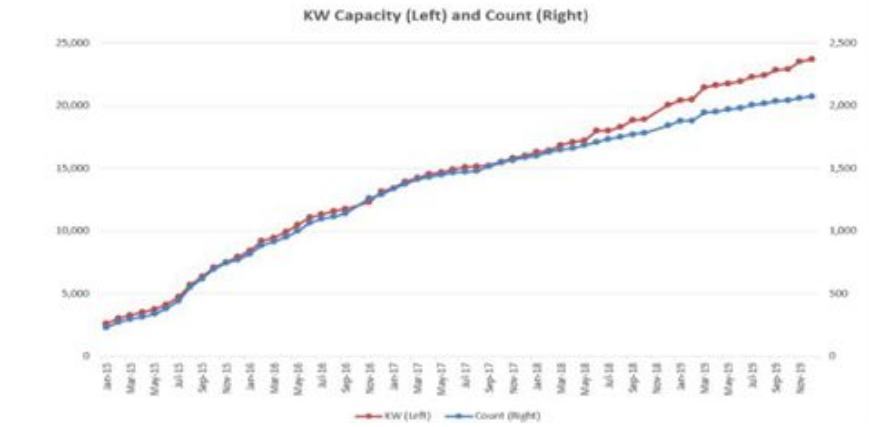
1. **Generation System:** The following is the generation forecast for February 2020:

Projected Available Capacity:	352 MW
Projected Demand:	228 MW
Anticipated Reserve Margin:	124 MW

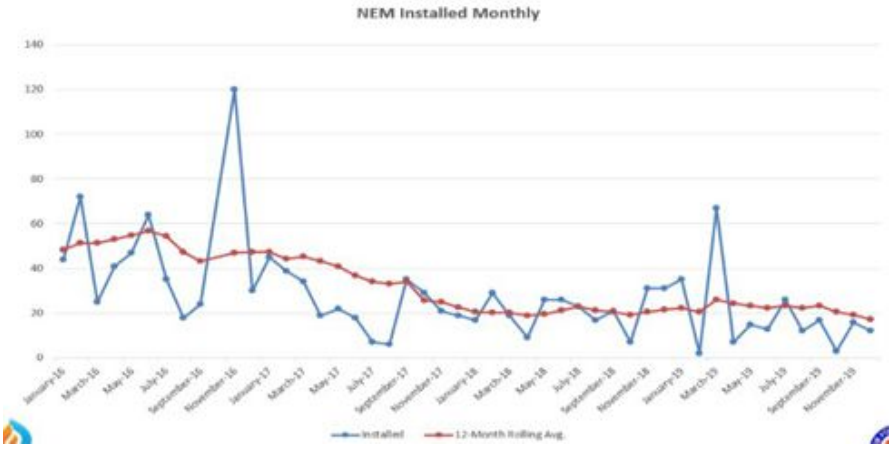
- The following updates monthly peak MW demand ending January 14, 2020:



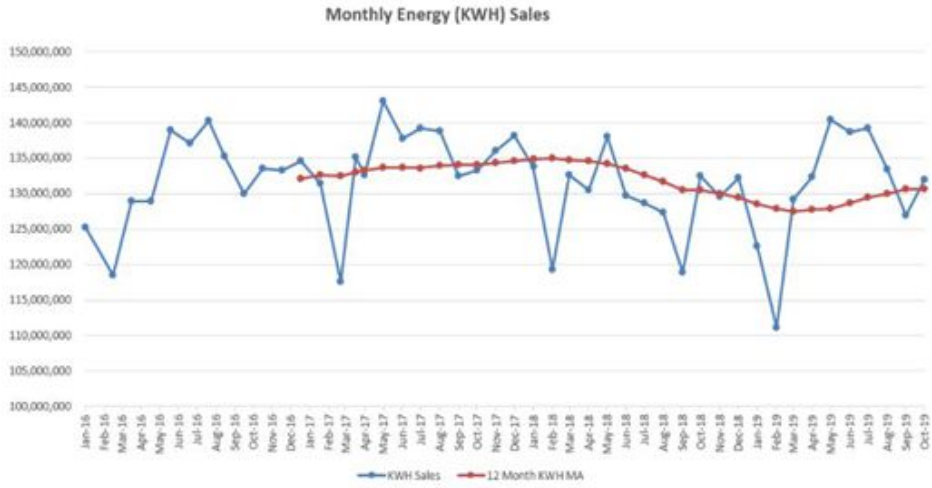
2. **Net Metering (NEM) Growth Thru December 2019:**



2. **Net Metering (NEM) Growth Thru December 2019 (Cont'd):**



3. **Energy Sales Thru October 2019:**



4. 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 Thru December 31, 2019	Total to Date
Regular/OT Pay	$11,348.80	$22,256.00	$26,121.83	$50,715.19	$6,059.80	$116,501.62
Other Contractual	$28,278.50	$85,550.05	$116,977.50	$3,025.00	$0.00	$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	$237,925.00	$3,674,375.00
Paid Rebates-Central AC	$3,400.00	$8,200.00	$4,400.00	$6,500.00	$1,000.00	$23,500.00
Paid Rebates-Washer/Dryer	$2,800.00	$7,425.00	$57,200.00	$110,800.00	$21,200.00	$199,425.00
Total Expenses	$200,527.30	$680,706.05	$1,554,524.33	$1,553,190.19	$267,684.80	$4,256,632.67
Bank Interest (+)	$1,676.42	$1,722.74	$1,222.29	$730.05	$127.57	$5,479.07
Bank Fees	$155.00	$1,032.06	$1,085.08	$1,247.54	$145.00	$3,664.68

5. **PUC DOCKETS:**
   - **GPA Docket 20-01**: The PUC approved the proposed Consent Decree with USEPA at their meeting on December 5, 2019. Both MEC and myself have signed the approved Consent Decrees.

6. **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 denied the protest and the procurement is currently before the OPA for hearings and decision.

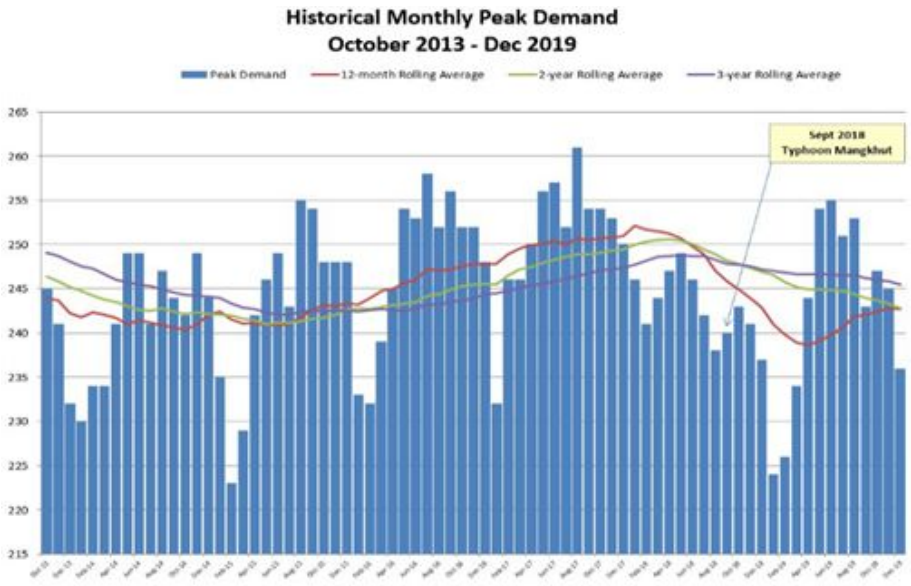
7. **Informational Briefings Conducted:**
   - Powering the Future to Members, Guam Association of Government Accountants (AGA) was conducted on Wednesday January 22, 2020.

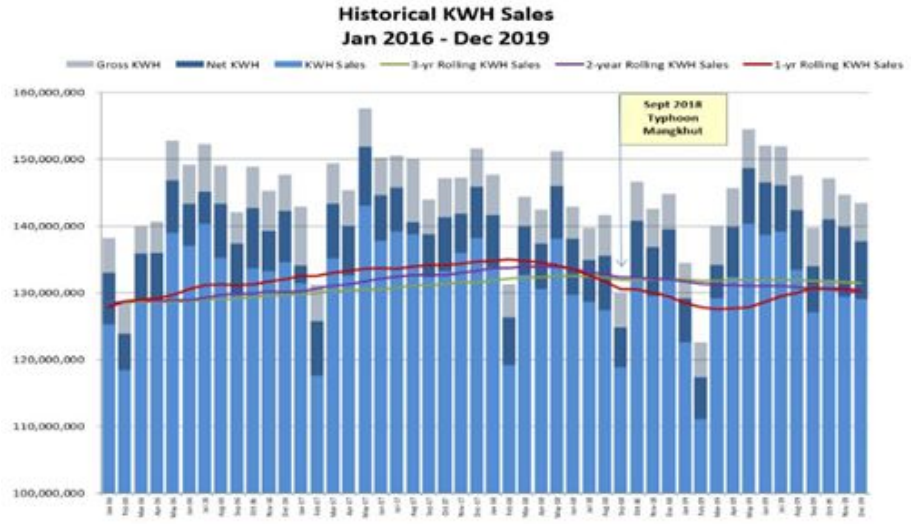
8. **Integrated Resource Plan:**
   - GPA has begun the process of updating the IRP considering that almost all the significant task within the current IRP have been achieved or contracted for. The AGMET has begun the process which would include stakeholder participation. We hope to complete a draft for the CCU consideration this summer. The key features of the updated IRP include an updated load forecast, fuel forecast, conventional generation mix, renewable generation mix, diversified fuel source, reliability amongst other factors including investments required to support the updated IRP.

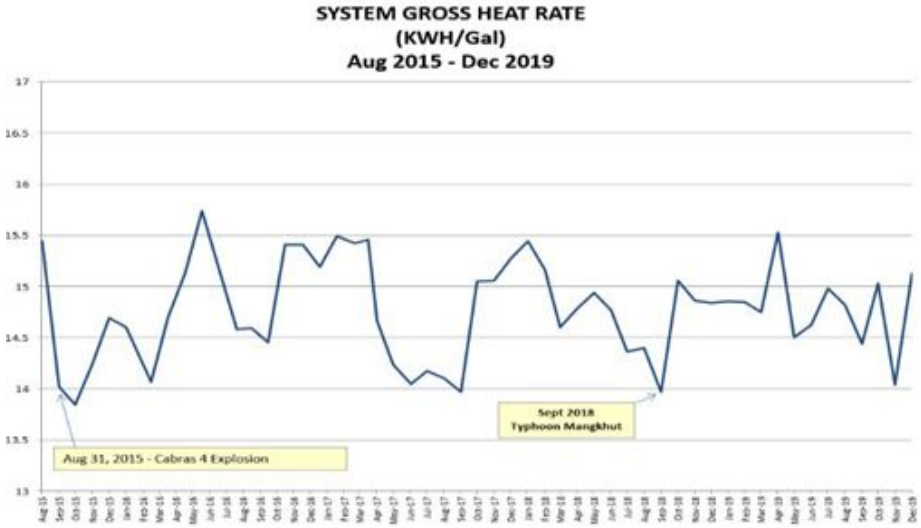
9. **Bond Ratings:**
   - **GPA bond rating was upgraded by Fitch from BBB- to BBB Stable this week.** This is a significant upgrade which will save ratepayers borrowing cost when in the near future we look at refinancing our 2012 bonds or if we had to issue bonds for upgrades in the transmission system to accommodate more renewables.

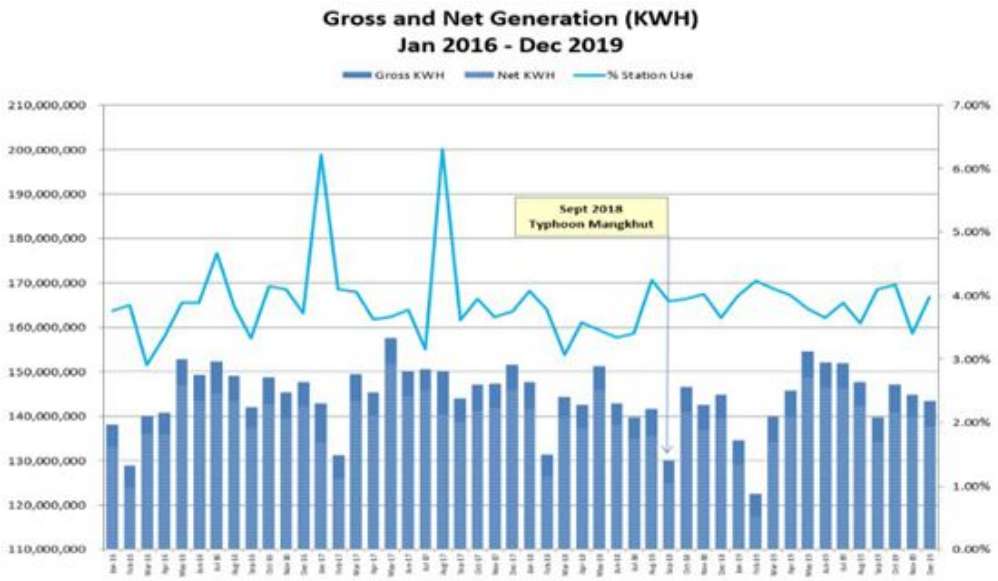
   - We also recently had a conference call with Moody's updating them on the latest accomplishments similar to the presentation we did for Fitch. However, because one of Moody's criteria is that GPA bond ratings will not be rated more than two notches above the GovGuam ratings, we don't anticipate any upgrades from Moody's because this is currently the situation.

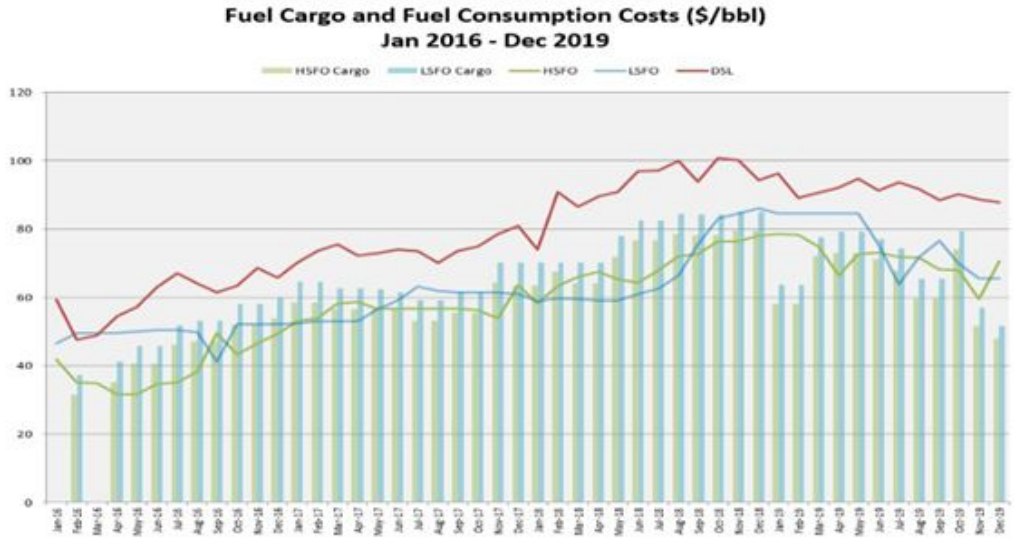
10. **The following graphs show the updated system information:**


Historical Monthly Peak Demand
October 2013 - Dec 2019
Peak Demand
12-month Rolling Average
2-year Rolling Average
3-year Rolling Average
Sept 2018
Typhoon Mangkhut


Historical KWH Sales
Jan 2016 - Dec 2019
Gross KWH
Net KWH
KWH Sales
3-yr Rolling KWH Sales
2-year Rolling KWH Sales
1-yr Rolling KWH Sales
Sept 2018
Typhoon
Mangkhut


SYSTEM GROSS HEAT RATE
(KWH/Gal)
Aug 2015 - Dec 2019
Sept 2018
Typhoon Mangkhut
Aug 31, 2015 - Cabras 4 Explosion





GM Benavente said a petition was filed at PUC relative to condominium owners wanting to have their rates changed to residential. He said solicited rate consultant Mark Beauchamp to do a cost of service study for a recommendation. There is a lot of information to digest and where do we begin. He said he thought to star with what are key differences to see of anything stands out. He said CFO John Kim will update the Commission on status.

CFO Kim said that they looked at sample sizes using actual customer billing and did comparisons using schedule P and J. Based on the study there is not much variance between condo rates and residential rates.

Comm. Limtiaco said what may happen is what may be a lower rate for some may be higher rate for others.

.
Comm. Duenas said to give some thought to advertise builders to ne aware that certain designs will cause certain problems.

CFO Kim said it is a challenge to make a recommendation and management is not ready at this time. More discussion needs to happen.

Comm. Limtiaco asked if management is advising those that come in for permitting. The GM said that everyone basically knows that individual meters is the better scenario. GPA does not impose this.

Comm. Sanchez said load natters and builders need to know this. His observation is that the size of load matters and GPA can help design their load but they still will pay their load size. Demand charges are not going away.

5.2 Financials

The CFO said he did not do financial highlights but the Nov ember financial statement is attached. Debt service is 1.62; Days in cash is about 20-30 days; energy sales is $32M and YTD is $66M; O&M is $28.6M; Net and income is $3.8 and higher than 2018.

Comm. Sanchez said the electrical sales are trending down because it is cooler which impacts sales. Also noticed in the balance sheet $22M was expensed – where did it go? CFO Kim said a principal payment was made.

Relative to receivables, there are some accounts that are lagging but this is always work in progress.

5.3 Resolution 2020-01 NEM Policy Requiring Installation of ESS for New NEM Solar PV & Wind Turbine Customers

Guam Public Law 27-132 (December 2004) created Net Metering for Guam and assigned the Guam Public Utilities Commission (PUC) the responsibility for setting the Net Metering Rate for excess renewable energy fed into GPA's Distribution System. NEM customers receive services from the grid subsidized by non-NEM customers including but not limited to: 1) Use of the grid to sell power (get credit at full retail rate for excess production); 2) Use of the grid to energize their homes at night, but credited back from their production (uses GPA Grid as storage); 3) Frequency regulation absorbed by grid for intermittencies; 4) Reactive power supply; 5) Voltage regulation; 6) Stand-by power on overcast days when the sun does not shine.

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 Dandan. In addition, there are about 2,035 net metering customers with a total capacity of about 22 MW of net metering customers tied in to the grid without batteries. The result of all these intermittent productions has degraded the reliability of the system. Solar PV Production is inconsistent and requires substantial battery reserves. The number of under frequency automatic load shedding due to solar PV systems has increased substantially over the past few years.

As of October 31, 2019, there has been 27 caused feeder trips or outages due to solar PV systems without batteries. Although, the new 40 MW frequency control batteries GPA is installing would decrease these outages, we cannot continue to add intermittent energy production into the grid because uncontrolled solar PV energy will degrade system reliability again. GPA cannot continue to add intermittent energy production into the grid without requiring all future customer owned solar PV and wind turbine systems to also have Frequency Control Capability or Energy Storage System (ESS). The lack of ESS in the system substantially degrades the reliability of non-solar customers.

Therefore, effective June 01, 2020, all new NET Metering Solar PV and Wind Turbine systems must also have Frequency Control Capability or Energy Storage System (ESS) in order to be tied in to GPA's grid. In the event that PUC sets a rate for energy storage per user, the new user may choose to pay the rate instead of providing Frequency Control Capability or Energy Storage System (ESS).

GM Benavente gave a brief update on status to date and asked the Commission to table vote on this resolution until February. He said he needs a little more time on this because there are other issues coming forth that he would like to consider. He will move the start date for June 1.

Comm. Limtiaco asked of the 2 different options do they both need PUC approval. GM confirmed the 1st option is technical and does not need PUC approval. However, the 2nd option does need PUC's approval.

5.4 Resolution 2020-02 Procurement of a Contractor for the Bulk Supply of Diesel Fuel Oil No.2 for Power Generating Plants

The fuel supply contract is necessary to provide uninterrupted supply of fuel for TENJO VISTA Power Plant. The 3-year contract is estimated to exceed $1.5M requiring prior approval from the PUC. The contract is planned for an initial period of two years to commence on or about June 01, 2020 and to expire on May 31, 2023, with the option to extend for two (2) additional one-year terms. The source of funding for this procurement is fuel revenue funds. The IFB solicitation will commence after CCU and PUC approval.

Comm. Santos motioned to approve Resolution 2020-02 second by Comm. Guthertz. There was no further discussion or objection and the motion passed.

5.5 Resolution 2020-03 Extension of the Existing Contract for the Mgmt., Operations and Maint. of the Fuel Bulk Storage Facility with IP&E

IP&E Guam LLC has been awarded the contract through a multi-step IFB process. The objective is to continue and exercise the second (2nd) and third (3rd) year extension of the contract to ensure uninterrupted, reliable operation of the facility for the supply of fuel to the GPA plants.

The first (1st) year extension of the contract with IP&E for the Management, Operation, and Maintenance of the GPA Fuel Bulk Storage Facility under GPA-014-17 is set to expire on September 30, 2020. This contract includes up to three optional one-year extensions.

The second (2nd) year contract extension is estimated to cost about $885,108.88 and the third (3rd) year contract extension is estimated to cost about $911,662.13 for the required services under the contract (Exhibit A).

The contract extension shall be for a period of two (2) consecutive years, commencing in October 1, 2020 and will expire in September 30, 2022. The contract fees for the Management, Operation, and Maintenance of the facility will be funded under the fuel budget. Other services will be funded through O&M, and some through CIP if it involves procurement of equipment, construction, modification and others.

The GM said Comm. Limtiaco questioned the O&M variable charges and the GM said this becomes a reimbursable item. Comm. Limtiaco asked if receipts are provided and the GM confirmed yes.

Comm. Guthertz motioned to approve Resolution 2020-02 second by Comm. Sanchez. There was no further discussion or objection and the motion passed unanimously.

5.6 Resolution 2020-04 Recognizing & Congratulating GPA's Recent Professional Engineers

GPA requires highly skilled professionals especially in the area of Engineering. GPA Engineers provide professional and technical engineering expertise in planning, designing and managing projects required for the upgrade and maintenance of transmission and distribution lines, substation and generation facilities and for renewable energy production. Engineers communicate effectively, oversee special projects, develop economical solutions to technical problems and improve the reliability of electricity and power grids.

GPA currently has a total of 45 Engineers throughout the organization performing electrical, civil, mechanical, and environmental/regulatory work. Of the 45 Engineers in GPA, 14 Engineers are licensed Professional Engineer (PE). According to the National Society of Professional Engineers, a Professional Engineer is an individual, who has fulfilled education and experience requirements and passed a rigorous exam that, under State licensure laws, permits them to offer engineering services directly to the public.

A Professional Engineer (PE) license matters if you work in the electric power and renewable energy industry. Only a licensed Professional Engineer, may prepare, sign, seal and submit engineering plans and drawings to any public authority for approval, or to seal engineering work for public and private clients. The National Society of Professional Engineers best summarizes the power of the PE designation stating: "Licensure is the mark of a professional. It's a standard recognized by employers and their clients, by governments and by the public as an assurance of dedication, skill and quality." It tells the public that you have mastered the critical elements of your profession.

Within the last 5 years, 3 GPA Engineer employees have achieved the distinct designation of Professional Engineer (P.E.), they include Mr. Louis C. Camacho, P.E., Engineer III with the Distribution Section of Engineering, Mrs. Kristy C. Cuenca, Engineer III with the Substation/Transmission section of Engineering, and Special Projects Engineer, Mrs. Paz A. Tison with SPORD.

There is an additional team of 11 other current professional engineers on staff at GPA who continue to mentor and guide other prospective engineers to attain professional licensure. All of GPA's professional engineers' level of expertise contribute to the progress GPA has made

and will continue to make to provide outstanding energy solutions to benefit our ratepayers and island community.

The number of GPA professional engineers is the largest concentration within the Government of Guam and is comparable with the concentration of registered professional engineers employed by the federal government and engineering firms on Guam.

The GM announced the professional engineers who have recently received their P.E. Paz Tison / mechanical engineer, Kristy Cuenca / electrical engineer, and Luis Camacho / electrical engineer. This brings to 15 the number of professional engineers at GPA. Coupled with GWA the overall total is 20+

Comm. Guthertz motioned to approve Resolution 2020-04 second by Comm. Santos. There was no further discussion or objection and the motion passed unanimously

6. OTHER DISCUSSION

6.1 CCU Rules Committee Update

Comm. Limtiaco updated that he has created a working draft of the CCU Rules to include requirements of the Open Government Law especially those from lessons learned from actions from earlier in the year. It will also have segments related to ethics and travel. The Rules Committee will meet through the month of February and then will have a work session for discussion and then the draft will be brought to the Board. The Goal is to adopt the Rules in open session at a CCU meeting.

6.2 Management Pay Issues

Comm. Limtiaco said this Committee has not met yet so there's been no related discussion

Comm. Limtiaco also gave an update on the Cyber Security Committee. He said they have met twice and several SOP's have been drafted or completed already for both GPA and GWA. An RFP is being drafted and will be released in February with award at the end of March.

7. ANNOUNCEMENTS

7.1 Next CCU Meetings: GWA WS – Feb 18; GPA WS – Feb 20; CCU Mtg – Feb25

The Chairman announced a change in the meeting date for the February. The CCU meeting will move from February 25 to February 21. There is no change on the GWA and GPA work sessions.

The Chairman called for a 5-minute recess before Executive Session. It was 8 p.m.

8. EXECUTIVE SESSION

The meeting resumed at 8:08 p.m. with Executive Session. Those present included the (5) CCU members, General Managers John Benavente and Miguel Burdallo, GWA Counsel Kelly Clark and GPA Counsel Graham Botha and Court Reporter Lorraine Cruz.

8.1 GWA Litigation Matters

8.2 GPA Litigation Matter

9. ADJOURNMENT

There being no other business to bring before the Commission, the meeting adjourned at 9p.m.

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Attested

_____	_____
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
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., November 26, 2019

MINUTES

1. CALL TO ORDER

The CCU Chairman called the regular meeting of November 26, 2019 to order at 5:38 p.m. He said all five (4) Commissioners were present; Comm. Santos was absent and excused. Others in attendance include:

Commissioners:

Joseph T. Duenas	CCU 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
Cora Montellano	CFO (A) / GPA
Taling Taitano	CFO / GWA
Graham Botha	Legal Counsel / GPA

Management & Staff:

Art Perez	Communications / GPA
Melvyn Kwek	Manager / IT GPA
Ron Topasna	Operations / GWA
Gilda Mafnas	Asst. CFO / GWA
Vince Pangelinan	Procurement/GWA
Vangie Lujan	Compliance & Safety / GWA
Patti Diego	Communications / GPA
Zina Pangelinan	Personnel Admin. / GWA HR
Heidi Ballendorf	Communications / GWA
Joyce Sayama	Mgmt. Analyst / GPA Ex.Office
Lou Sablan	Board Secretary / CCU

Guests:

Jerry Johnson	Brown & Caldwell

Orlean Arriola	AXS
Angelica Perez	AM Insurance
Lorraine Cruz	Court Reporter
Ann Marie Muna	AM Insurance
Nestor Licanto	KUAM
John O'Conner	Guam Post

2. APPROVAL OF MINUTES

The Minutes of August 9, 2019 was presented for approval

Comm. Limtiaco motioned to approve the Minutes subject to written correction second by Comm. Sanchez. There was no objection and the motion passed.

3. COMMUNICATIONS

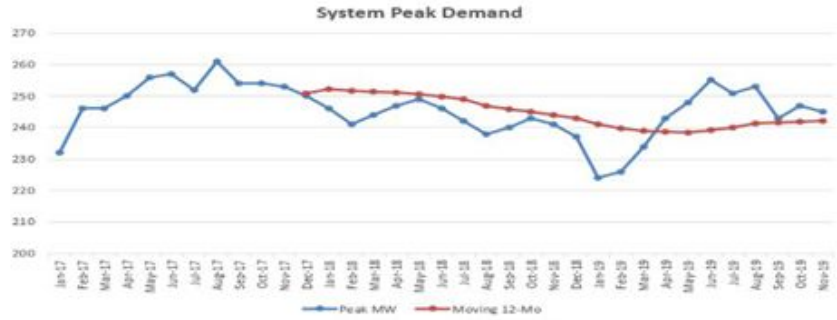
3.1 <u>Public Comments</u> – None

4. GPA

4.1 <u>GM Report</u>

1. **Generation System:** The following is the generation forecast for December 2019:
   Projected Available Capacity: 319 MW
   Projected Demand: 242 MW
   Anticipated Reserve Margin: 77 MW
   Significant Outage: Cabras 2 undergoing boiler tube repairs for 14 days.

   - The following updates the monthly peak demands ending November 25, 2019:



3. **Energy Sales Thru October 2019:**

Demand Side Management (DSM)

5

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

DSM PROGRAM SUMMARY

Description	FY16	FY17	FY18	FY19	FY20 As of 10/31/19*	Total to Date
Regular/OT Pay	$11,348.80	$22,256.00	$26,121.83	$50,715.19	$414.15	$110,855.97
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Ads & Radio Announcements	-	-	-	$7,500.00	-	$7,500.00
Paid Rebates-Split AC	$154,700.00	$557,275.00	$1,349,825.00	$1,254,550.00	$119,100.00	$3,435,450.00
Paid Rebates-Central AC	$3,400.00	$8,200.00	$4,400.00	$6,000.00	$500.00	$22,500.00
Paid Rebates-Washer/Dryer	$2,800.00	$7,425.00	$57,200.00	$100,000.00	$10,600.00	$178,025.00
Total Expenses	$200,527.30	$680,706.05	$1,554,524.33	$1,421,790.19	$130,614.15	$3,988,162.02

5. **PUC DOCKETS:**
   - GPA Docket 20-01, Petition for PUC Approval of Consent Decree with USEPA is on the PUC agenda for December 5, 2019 meeting. PUC indicated to GPA that PUC approval of the Consent Decree is required and GPA has made the filing accordingly.

6. **New Power Plant:** The PUC approved for GPA to contract with KEPCO for the 198 MW power plant at their October 31, 2019 meeting. I signed the contract on November 5, 2019. KEPCO has been provided the notice to proceed. KEPCO is currently proceeding to acquire permits required and financing.

7. **Employee Briefings Conducted:**
   - Semi-annual Employee Briefings were held on November 13 & 14, 2019.
   - Briefing covered the many issues GPA faced over the past several months and the near term goals we are pursuing.
   - We thanked employees for their excellent work during these past few months.
   - Key concern amongst generation employees understandingly is the retirement of plants by 2020. GPA is currently preparing plans on rightsizing which we would bring to the commission for consideration between March and June 2020.
   - GPA is working to determine which plants to recommend operating after the commissioning of the new plant.
   - An updated Integrated Resource Plan is being worked on in order to answer our future generation mix question. The IRP is scheduled for completion by June 2020.

8. **New Apprentices:**
   - GPA welcomed on board 18 new apprentices for the T&D division. They are being trained in key difficult to recruit areas such as overhead lines, underground lines, meter and relay, and substation. It is estimated that 46% of T&D employees will be eligible for retirement within the next 10 years. These brings the number of apprentices to 38.

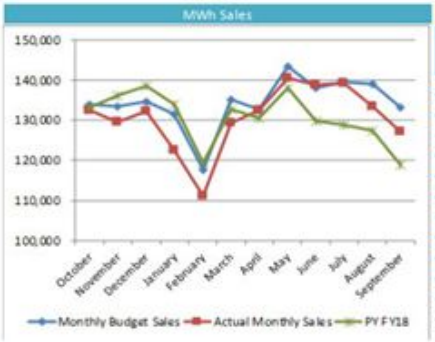
9. **Phase III renewables Project:**
   - The lowest bidder was determined to be Engie at about $0.11/Kwh. However, there was a protest filed with GPA by GlidePath. Protest was denied by GPA. Glidepath has since filed their protest with the OPA. GPA will work with the OPA for the resolution of this significant project whose unit price is substantially below current LEAC.

4.2 Financials

September 2019 Monthly Financial Highlights

Through September 30, 2019

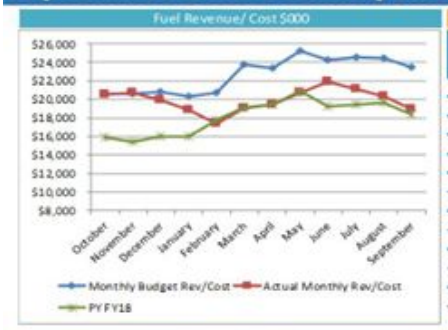
$000	Monthly Budget Revenues	Actual Monthly Revenues	Variance		PY FY18	CY vs PY Variance	
October	$ 13,811	$ 13,564	$ (246)	↓	$ 13,625	$ (61)	↓
November	13,723	13,203	$ (519)	↓	13,827	$ (624)	↓
December	13,833	13,467	$ (365)	↓	13,968	$ (501)	↓
January	13,321	12,616	$ (705)	↓	13,534	$ (918)	↓
February	12,114	11,915	$ (199)	↓	12,522	$ (607)	↓
March	13,790	13,926	$ 135	↑	13,776	$ 150	↑
April	13,562	13,520	$ (42)	↓	13,351	$ 169	↑
May	14,630	14,057	$ (573)	↓	14,011	$ 46	↑
June	14,196	13,977	$ (219)	↓	13,201	$ 776	↑
July	14,152	13,951	$ (202)	↓	13,446	$ 504	↑
August	14,280	13,595	$ (685)	↓	13,041	$ 554	↑
September	13,590	13,073	$ (517)	↓	12,707	$ 366	↑
Total	**$ 165,002**	**$ 160,865**	**$ (4,137)**	↓	**$ 161,010**	**$ (145)**	↓



Through September 30, 2019

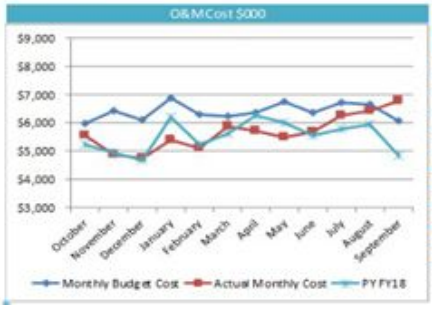
gwh	Monthly Budget Sales	Actual Monthly Sales	Variance		PY FY18	CY vs PY Variance	
October	133,797	132,489	(1,308)	↓	133,262	(773)	↓
November	133,346	129,537	(3,809)	↓	136,044	(6,506)	↓
December	134,715	132,190	(2,525)	↓	138,587	(6,397)	↓
January	131,547	122,590	(8,958)	↓	133,882	(11,292)	↓
February	117,775	111,159	(6,616)	↓	119,241	(8,082)	↓
March	135,196	129,170	(6,026)	↓	132,693	(3,523)	↓
April	132,763	132,396	(367)	↓	130,565	1,830	↑
May	143,236	140,412	(2,824)	↓	138,085	2,327	↑
June	138,016	138,704	688	↑	129,728	8,976	↑
July	139,434	139,204	(230)	↓	128,681	10,523	↑
August	139,030	133,422	(5,608)	↓	127,348	6,074	↑
September	133,149	127,050	(6,100)	↓	118,935	8,115	↑
Total	**1,612,003**	**1,568,322**	**(43,681)**	↓	**1,567,052**	**1,269**	↑

September 2019 Monthly Financial Highlights (Continued)



Through September 30, 2019

$000	Monthly Budget Rev/Cost	Actual Monthly Rev/Cost	Variance		PY FY18	CY vs PY Variance	
October	$ 20,637	$ 20,550	$ (87)	↓	$ 15,936	$ 4,615	↑
November	20,568	20,711	$ 143	↑	15,400	$ 5,310	↑
December	20,779	19,969	$ (810)	↓	16,007	$ 3,961	↑
January	20,290	18,822	$ (1,468)	↓	16,036	$ 2,785	↑
February	20,718	17,368	$ (3,350)	↓	17,763	$ (395)	↓
March	23,783	19,017	$ (4,765)	↓	19,180	$ (163)	↓
April	23,354	19,442	(3,912)	↓	19,441	2	↑
May	25,197	20,711	(4,486)	↓	20,854	(143)	↓
June	24,279	21,932	(2,347)	↓	19,252	2,680	↑
July	24,528	21,082	(3,446)	↓	19,457	1,624	↑
August	24,457	20,331	(4,126)	↓	19,608	723	↑
September	23,422	18,935	(4,488)	↓	18,390	544	↑
Total	**$ 272,011**	**$ 238,868**	**$ (33,143)**	↓	**$ 217,324**	**$ 21,544**	↑



Through September 30, 2019

$000	Monthly Budget Cost	Actual Monthly Cost	Variance		PY FY18	CY vs PY Variance	
October	$ 5,986	5,551	435	↑	5,239	(312)	↓
November	6,419	4,875	1,544	↑	4,941	66	↑
December	6,119	4,762	1,358	↑	4,694	(68)	↓
January	6,882	5,399	1,483	↑	6,204	805	↑
February	6,291	5,114	1,177	↑	5,252	138	↑
March	6,231	5,869	362	↑	5,638	(231)	↓
April	6,374	5,704	670	↑	6,269	565	↑
May	6,753	5,485	1,268	↑	6,005	520	↑
June	6,373	5,703	670	↑	5,558	(145)	↓
July	6,710	6,276	434	↑	5,797	(479)	↓
August	6,648	6,421	227	↑	5,961	(460)	↓
September	6,079	6,797	(718)	↓	4,836	(1,961)	↓
Total	**$ 76,866**	**$ 67,956**	**$ 8,910**	↑	**$ 66,394**	**$ (1,562)**	↑

September 2019 Monthly Financial Highlights (Continued)

Through September 30, 2019

	3Q2018	4Q2018	1Q2019	2Q2019	3Q2019	4Q2019
Residential	44,074	43,887	43,920	44,144	44,329	44,479
Commercial	5,278	5,261	5,273	5,291	5,303	5,289
Government	1,092	1,077	1,090	1,074	1,075	1,070
Streetlights	1,091	1,152	1,151	1,152	1,138	1,138
Navy	1	1	1	1	1	1
Total	51,536	51,378	51,435	51,662	51,846	51,977

Debt service coverage (DSC) calculation-indenture	2013	2014	2015	2016	2017	2018	2019
Senior lien coverage	3.36	3.16	3.62	3.28	2.65	2.53	1.97
Aggregate debt service coverage	1.88	1.98	2.62	3.28	2.65	2.53	1.97
Debt service coverage (DSC) calculation-IPP as O&M							
Senior lien coverage	2.16	2.55	2.56	2.45	1.79	1.65	1.64
Aggregate debt service coverage	1.21	1.41	1.85	2.45	1.79	1.65	1.64

Comm. Limtiaco was concerned about aging and asked to review Schedule G in more detail. In discussion GM Bordallo said there was a claim of double billing for Guam Int;l Airport and that he was looking into the matter and is confident it can be resolved.

4.3 Resolution 2019-15 Creation of Supervisory Control and Data Acquisition [SCADA] Technician Series of Positions

The installation and utilization of GPA's Supervisory Control and Data Acquisition (SCADA) system at PSCC significantly changed the GPA's Power System Control Center's processes and structure. Current employees holding Computer Technician series positions are performing technically distinct SCADA duties. The Authority seeks to create new positions to reflect its current processes and structure. The job series creation is not expected to exceed the current budget, is expected to be in place by December 30, 2019 and will be funded by revenue funds.

Comm. Guthertz motioned to approve Resolution 2019-15, second by Comm. Limtiaco.

In discussion it was mentioned that these positions are for GPA specific. Comm. Limtiaco asked if these positions will result in new FTE's and GM said there are 2 positions already in house and will re reclassed to this position and 2 vacancies that will be filled from outside. The GM confirmed that the FTE budget is 500 and currently we are at 455. This is not new budgeted positions.

On the motion there was no further discussion or objection and it passed with a vote of 4 ayes and 1 absent

4.4 Resolution 2019-16 Levelized Energy Adjustment Clause [LEAC] Adjustment

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 deadline for the next filing is December 15, 2019. For the LEAC period covered from August 1, 2019 through January 31, 2020, GPA requested to maintain the LEAC rate of $0.154242/kWh that was approved for meters read on or after May 1, 2018 in anticipation of projected declining prices of black oil in the fuel market and to recover about 30% of 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 $78.61/bbl for the (6) six-month period ending January 31, 2020, the current projection for the same period is $77.06/bbl. The projected average price of residual fuel oil and diesel for the period February 01, 2020 to July 31, 2020 is $65.71/bbl.

The most recent Morgan Stanley market projections indicate falling fuel prices over the next year. However, according to S&P Global Platts, "OPEC and its allies are leaning towards their 1.2 billion b/d supply cut agreement through the end of 2020" in the hopes of boosting the global economy. Based on this information, GPA anticipates an increase in fuel price by 15% from the current market. Under this proposal, GPA will fully recover the current under-recovery of about $9.3 million based on the Morgan Stanley Asia Morning Call forward pricing for the period of February 1, 2020 to July 31, 2020 adjusted with anticipated 15% increase in price due to continued supply cut agreement by OPEC. Under this approach, the projected LEAC rate for Secondary voltage customers is $0.138542/kWh or a 10.18% decrease from the current LEAC rate. An estimated $1.5 million is included for costs associated with the Demand Side Management rebate program which has an estimated impact of $0.002/kWh for the anticipated LEAC period. DSM under LEAC represents a 1.48% of the anticipated fuel cost for the period.

Management recommended to adjust the projected LEAC rate for Secondary voltage customers is $0.138542/kWh or a 10.18% decrease from the current LEAC rate.

There was lengthy discussion and review of the exhibits presented by management showing under recovery levels related to the various adjusted LEAC rate options. At the end the Commission decided that the best scenario to give ratepayers substantial relief and a manageable under recovery [worst case scenario] would be a LEAC factor of $0.131145.

Comm. Sanchez motioned to set LEAC at $0.131145 per kWh [inclusive of DSM rate of $0.002 per kWh], second by Comm. Guthertz.

There was discussion to amend the resolution to reflect this motion.

Legal Counsel stated the amendment to line 24, page 2 to change LEAC factor to $0.131145 [inclusive of DSM charge kWh] and delete paragraph 2 under the resolve section.

Comm. Guthertz motioned to approve the amendment, second by Comm. Sanchez.

On main motion as amended the vote was 4 ayes; 1 absent; the motion passed.

4.5 Resolution 2019-17 Cabras 1&2 Performance Mgmt. Contract [PMC]

GPA's current PMC contract for the Cabras Units #1 and #2 Steam Turbine Power plant expires on September 30, 2020 and no more options for extension as the maximum extension of 5 years past the base period will be reached by the same date. Although CCU approval has been approved for another year, PUC only approved the extension up to September 30, 2020.

GPA's new power plant and the new renewable energy contracts are expected to be placed online end of 2022. Therefore, to ensure adequate installed capacity to meet the MW demand on island, GPA would need to continue operating and maintaining the Cabras Power Plants at least until the new power plant is online.

The term of the new contract will start in October 2020, for a base period of three years with the last year of the base contract in 2023 designated as the commencement of de-activation and/or decommissioning planning and activities. There is an option to extend for two (2) additional 1-year extension if deemed necessary. The related costs includes Fixed Management Fees - $1.6M - $1.76M per year, total of $6,730,682.61 for the past 4 years based on historical costs. The funding source is revenue funds.

The anticipated schedule is as follows:
Contract Commencement: October 1, 2020
Contract Base Period End: September 30, 2023
Optional Extension Year 1: Oct 2023 – Sept 2024
Optional Extension Year 2: Oct 2024 – Sept 2025

Comm. Sanchez motioned to approve Resolution 2019-18 second by Comm. Guthertz.

Comm. Limtiaco asked if this complies with compliance of the consent decree and management said yes. Comm. Limtiaco asked if there is a need for 2 option years [1 plus 1] and the GM said he just wants to be conservative. He said he doesn't think he needs it but just in case.

Comm. Sanchez motioned to amend the resolution to add "as described herein" to Resolved line 10, after word "plant", second by Comm. Guthertz.

On main motion the vote was 4 ayes; 1 absent and the motion carried.

4.6 Resolution 2019-18 Demand Side Mgmt. [DSM} Funding

This resolution seeks approval to fund the DSM Program under LEAC. The current funding source is Base Rate Revenues and Insurance Premium Savings. PUC's approval of GPA's recommendation results in DSM expenses being revenue neutral and will be affected upon approval of the Guam Public Utilities Commission. Management recommends this for the following reasons:

The DSM Program is experiencing exponential growth. Although perhaps not truly unexpected, this DSM Program exponential growth is volatile: subject or characterized by

rapid change. The LEAC decoupling from base rates addresses expenses like fuel that have a volatile nature.

DSM rebate expenses may likely double every year and would soon place great pressure on GPA base rate funding affecting GPA Debt Service Coverage requirements. At that point, GPA would have to severely curtail the growth of the DSM rebate program. This curtailment would not comport with CCU and PUC policy and their mutual desire to reduce customer energy consumption, demand, and cost.

Similar to renewable energy, the DSM is predicated on the avoidance of fuel costs, and it also defers the need for capacity additions.

The PUC has allowed GPA to recover its Utility Scale Renewable Energy Program costs through LEAC and all savings achieved credited to LEAC.

To date, annual energy fuel savings from the program is approximately 4,012,000 kWh, and demand reduction achieved from the program is approximately 3,108 kW.

Managing consumer growth in its energy consumption and demand is critical until 2022 upon the commissioning of the new power plant.

GM Benavente presented some information on a power point presentation – key factors include monthly rebates paid with historical data, related rebate expenses and an annual rebate summary and fuel cost savings summary.

EXHIBIT A

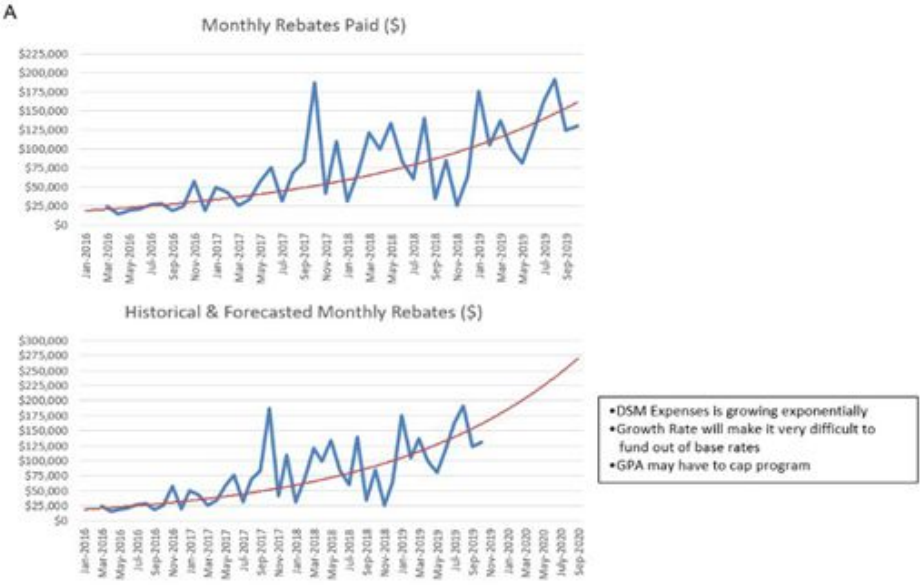


Figure A-1. Historical and Forecast Monthly DSM Rebate Expenses

EXHIBIT A

Figure A-2. Historical and Forecasted Annual DSM Rebate Expenses

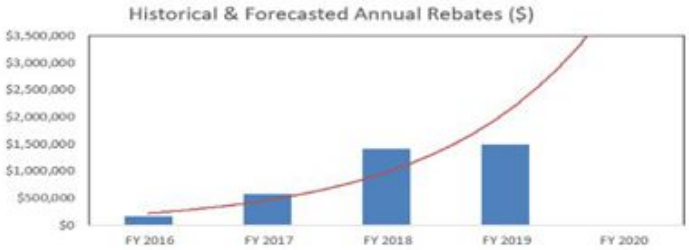


Table A-1. Annual Rebate Summary

Description	Year Paid	Total Rebate Amount	Count of Applications	Avg. Rebate per Application
Rebates-Split A/Cs	2016	$ 253,500	693	$ 366
	2017	$ 798,426	2519	$ 317
	2018	$ 1,073,575	3385	$ 317
	2019	$ 1,275,975	4484	$ 285
Rebates-Split A/Cs Total		**$ 3,401,477**	**11081**	**$ 307**
Rebates- Washer/Dryers	2016	$ 4,700	36	$ 131
	2017	$ 7,325	29	$ 253
	2018	$ 57,400	212	$ 271
	2019	$ 103,800	434	$ 239
Rebates- Washer/Dryers Total		**$ 173,225**	**711**	**$ 244**
Rebates-Central A/Cs	2016	$ 7,200	8	$ 900
	2017	$ 5,800	8	$ 725
	2018	$ 3,600	6	$ 600
	2019	$ 6,500	10	$ 650
Rebates-Central A/Cs Total		**$ 23,100**	**32**	**$ 722**
Grand Total		**$ 3,597,802**	**11824**	**$ 304.28**

Fuel Cost Savings Summary:

Average KW Reduction per Applicant	0.26
Total Applicants	11,824
Total KW Reduction	3,108
Residential Load Factor	57.0%
Annual KWH Avoided	15,519,193
Average Diesel Production $/kWh	$0.196
Annual Savings	$3,046,418
Total Rebate Paid	$2,283,652
Payback in Years	0.7
Equipment Life in Years	**7**
Total Fuel Savings over Life	**$21,324,923**

Requested DSM Funding Annually	**$3,000,000**
Estimated Fuel Cost	**$202,101,459**
Estimated Civilian kWh Annually	**1,285,463**
Estimated $/kWh	**0.002**
DSM Percent of LEAC Annually	**1.48%**

Comm. Guthertz said this resolution will help ratepayers and the environment.

Comm. Guthertz motion to approve Resolution 2019- 18 second by Comm. Sanchez.

In discussion Comm. Sanchez said he supports this resolution because it has a compounding effect of getting people to put more energy efficient appliances in their homes. He said management is also planning to expand the program to include ore potential beneficiaries like apartment dwellers. The analytics are excellent. If these funds are not spent it will go back to lowering the LEAC.

Comm. Duenas had questions in the resolved section and recommended to include in the first resolve to petition PUC to place DSM under LEAC and to mention the .002 of every LEAC factor be embedded in the LEAC factor as DSM funding.

It was discussed to amend the resolution to add another whereas to say that for every $2.3M of rebate paid there will be fuel savings of $21M

Comm. Sanchez motion to amend the resolutions page 1 after whereas on line 22 and 23 to add a new whereas stating for every $2.3M paid in rebates there is an estimated fuel savings of $21.3M over the useful life of the equipment; second by Comm. Guthertz. There was no objection.

Comm. Sanchez motioned for a second amendment on page 2, line 47 to state that the initial rate for DSM should be .002 per kWh, second by Comm. Guthertz. There was no objection.

On the main motion as amended, there was no further discussion or objection and the motion passed.

4.7 Resolution 2019-19 Net Metering [NEM] Policy Requiring Installation of Energy Storage System [ESS]

Guam Public Law 27-132 (December 2004) created Net Metering for Guam and assigned the Guam Public Utilities Commission (PUC) the responsibility for setting the Net Metering Rate for excess renewable energy fed into GPA's Distribution System. NEM customers receive services from the grid subsidized by non-NEM customers including but not limited to: 1) Use of the grid to sell power (get credit at full retail rate for excess production) 2) Use of the grid to energize their homes at night, but credited back from their production (uses GPA Grid as storage) 3) Frequency regulation absorbed by grid for intermittencies 4) Reactive power supply 5) Voltage regulation 6) Stand-by power on overcast days when the sun does not shine.

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 Dandan.

In addition, there are about 2,035 net metering customers with a total capacity of about 22 MW of net metering customers tied in to the grid without batteries. The result of all these intermittent productions has degraded the reliability of the system. Solar PV Production is inconsistent and requires substantial battery reserves. The number of under frequency automatic load shedding due to solar PV systems has increased substantially over the past few years.

As of October 31, 2019, there has been 27 caused feeder trips or outages due to solar PV systems without batteries. Although, the new 40 MW frequency control batteries GPA is installing would decrease these outages, we cannot continue to add intermittent energy production into the grid because uncontrolled solar PV energy will degrade system reliability again. GPA cannot continue

to add intermittent energy production into the grid without requiring all future customer owned solar PV and wind turbine systems to also have Frequency Control Capability or Energy Storage System (ESS). The lack of ESS in the system substantially degrades the reliability of non-solar customers.

Therefore, effective January 01, 2020, all new NET Metering Solar PV and Wind Turbine systems must also have Frequency Control Capability or Energy Storage System (ESS) in order to be tied in to GPA's grid.

Comm. Sanchez and Limitaco voiced that they want to do more outreach to inform the industry before passing this resolution. Comm. Sanchez said he does not disagree with the policy but is concerned that not enough outreach was done. The industry does not know that we are thinking of this and that we are going to implement it this soon. He recommended to management to conduct the outreach in January and give community time to respond. Comm. Guthertz recommended moving the start date to March 1. Chairman Duenas advised to change the start date to March 1 rather then January 1, to place the resolution on the January meeting agenda and do outreach in December.

GM Benavente said he will amend the resolution extending the implementation date to March 1 and do public outreach as recommended

Resolution 2019-19 was tabled until January meeting.

4.8 Resolution 2019-20 Net Metering Tariff

The Guam Public Utilities Commission (PUC) ordered GPA to execute the Interim Net Metering (NM) Rider under Docket No. 08-10 (December 29, 2008). Under Docket 08-10, Exhibit A (paragraph 1), the PUC states: "The NM Rider may be amended or modified in the future by GPA, with the approval of the Guam Public Utilities Commission (PUC)." Under Docket 08-10, Exhibit A (paragraph 3), the PUC orders: "The NM Rider is available to all customers without limitation as to the aggregate capacity of Customer-Generator installations on the GPA System. However, at the time the number of Customer-Generators exceeds one-thousand (1000) customers this issue will be reviewed by the PUC and a determination made as to the continued offering of the NM Rider for new 'net metering' customers." GPA achieved the milestone of 1000 net metering (NEM) customers in June 2016. NEM customers receive services from the grid subsidized by non-NEM customers including but not limited to:

- Use of the grid to sell power (get credit at full retail rate for excess production);
- Use of the grid to energize their homes at night;
- Frequency regulation absorbed by grid for intermittencies;
- Reactive power supply;
- Voltage regulation; and
- Stand-by power on overcast days when the sun does not shine.

GPA has 2,040 net metering customers (October 31, 2019) resulting in an approximate $3,527,745 annual subsidy going forward. Expiration of customer credit was revised in docket 08-10 on December 10, 2015 which gave customer an option to elect to have GPA carry the credits forward, or have GPA purchase from the customer all kWh credits remaining on their account.

GPA is requesting to **revert** to the original language contained in the Net Metering Rider, under "MONTHLY BILLING," which states: "In no event shall the excess credit from a single month be carried forward beyond twelve (12) months as a credit against the current monthly billing. At the end of each calendar year, or in the event of termination of service under this Rider, any excess kWh credits; if any will be granted by the customer to the GPA without compensation to the customer"

The payment or carry over of excess credits tend to encourage net metering customers to install larger capacity which results in receiving payments for excess energy thereby resulting in increased cost to non-NEM customers.

Typically, in other jurisdictions NEM excess credits are zeroed out annually as was done by GPA prior to the change in December 2015. GPA has 2,040 net metering customers (October 31, 2019) resulting in an approximate $3,527,745 annual subsidy going forward.
GPA refunded $86,283 and carried forward $241,217 in calendar year 2018.

The GM said this resolution is relative to PUC Docket 08-10. With most net metering programs stateside, at the end of every 12mos period excess production stays with the utility they do not get paid or allowed to carry over because for the same energy that they carry over is produced at $0.154 cents but we pay out at higher rate $0.24cents. We are buying a product we don't need at a higher price. This resolution will ask PUC to approve to revert back to this scenario.

Comm. Sanchez motioned to approve Resolution 2019-20 for discussion, second by Comm. Guthertz.

Comm. Sanchez said the most compelling whereas is the last one which is missing that all NEM excess credit is zeroed out annually and to include in the 2nd resolved section copy lines 35-39

Comm. Sanchez motioned to amend the resolution to state that all excess NEM excess credit be zeroed out annually and to add a new resolved #2 the revision shall be and copy lines 35-39, second by Comm. Guthertz.

Comm. Limtiaco questioned the analysis and how much as been paid out. He asked if the number quoted is full retail. GM Benavente confirmed yes and explained the breakdown of the amount in question.

Comm. Limtiaco asked about the phrase “revert back” and GM Benavente explained that the PUC will be petitioned to go back to the original language thus this phrase. It was mentioned that the PUC changed this on December 2015, 4 years ago.

On the amendment there was no further discussion or objection and the motion passed 4 ayes and 1 absent.

On the main motion as amended, there was no further discussion or objection and the motion carried, ayes 4 and absent 1.

At this point Comm. Sanchez recognized Asst. CFO Cora Montellano in her retirement at the end of the calendar year and wished her a wonderful retirement. She said she has been with GPA for 28 years and thanked management and the Commission for the opportunity.

5. GWA

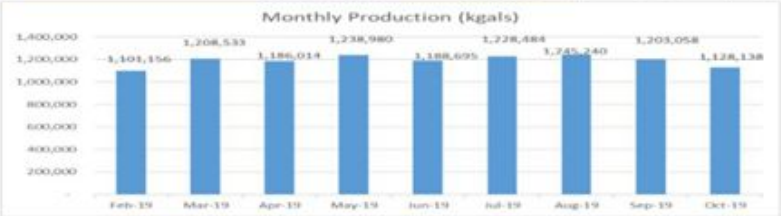
5.1 GM Report

Operations Update

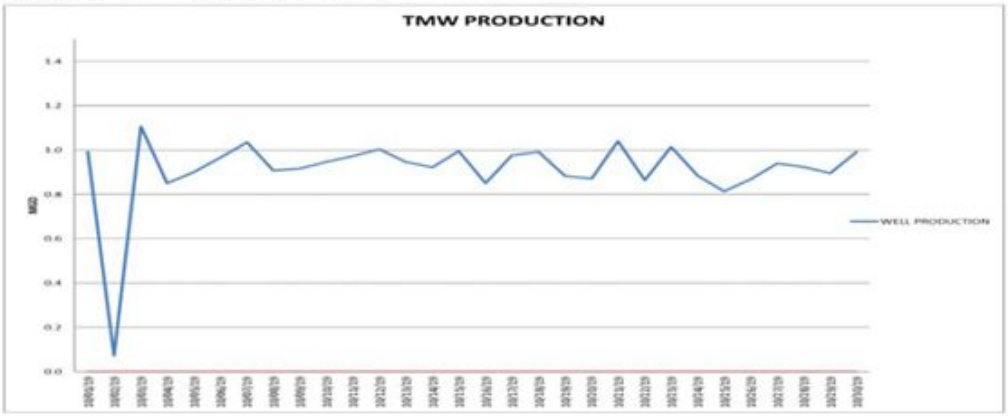
Production (October 2019)

Monthly Production Summary - October 2019				
Deep Wells			36.4	MGD
Active wells =	98	of 120		
Avg days in operation =	31	days		
Total Production =	1,128,608	Kgals		
Springs			0.37	MGD
Avg days in operation =	31	days		
Total Production =	11501	Kgals		
Ugum Surface Water Plant			2.2	MGD
Avg days in operation =	31	days		
Total Production =	69,725	Kgals		
Tumon Maui Well			0.91	MGD
Avg days in operation =	31	days		
Total Production =	28,304	Kgals		
	1,128,138	Kgals	39.9	MGD

DW Status as of 10/31/2019		
Active	98	
Grounded motor or Pump Failure	3	A26-D03-F06
Out of commission	8	A02-A07-A28-D05-D13-M14-M-01-M-05
Temporarily Secured	3	A23-A25-F10
Standby	8	A10-A29-D01-D20-F16-F18-M12-M17B
TOTAL	120	



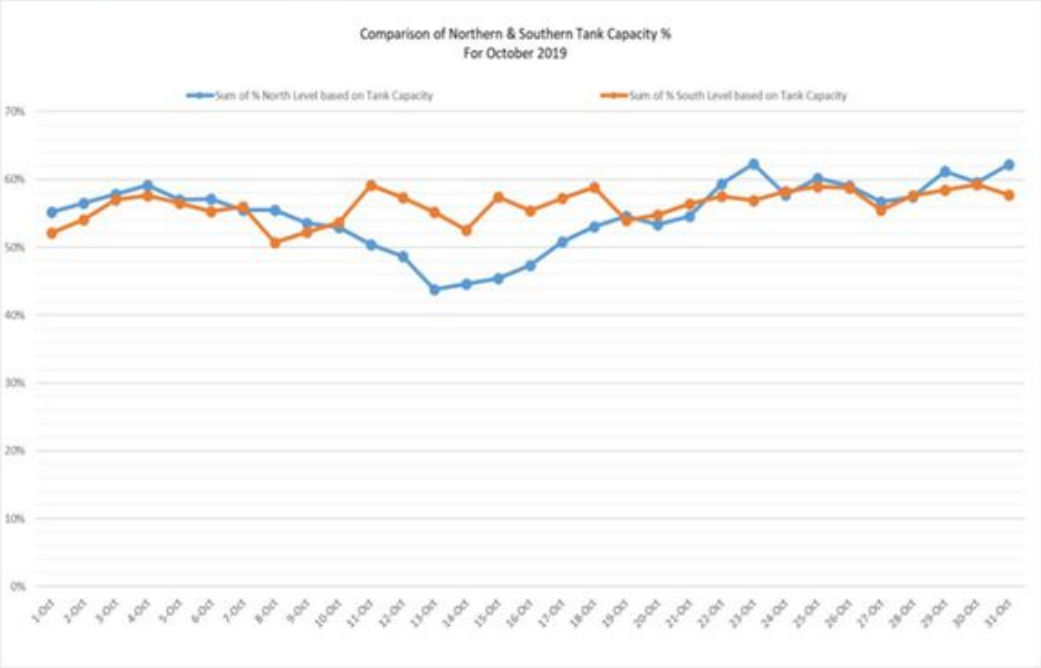
Tumon Maui Well Production (October 2019)



Distribution (October 2019)

Monthly Distribution Summary - October 2019					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	20	18	90.0%
	Central	7	15	15	100.0%
	Southern	7	15	14	93.3%
		25	50	47	94.0%

Distribution – Tank Levels (October 2019)



Wastewater Collections (October 2019)

Monthly Collections Summary - October 2019					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	38	73.1%
	Central	29	63	50	79.4%
	Southern	27	58	44	75.9%
		78	173	132	76.3%

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
Target	5	5	5	5	5	5	5
Total Actual Miles	6.3	4.8	7.6	6.6	5	5	4.4

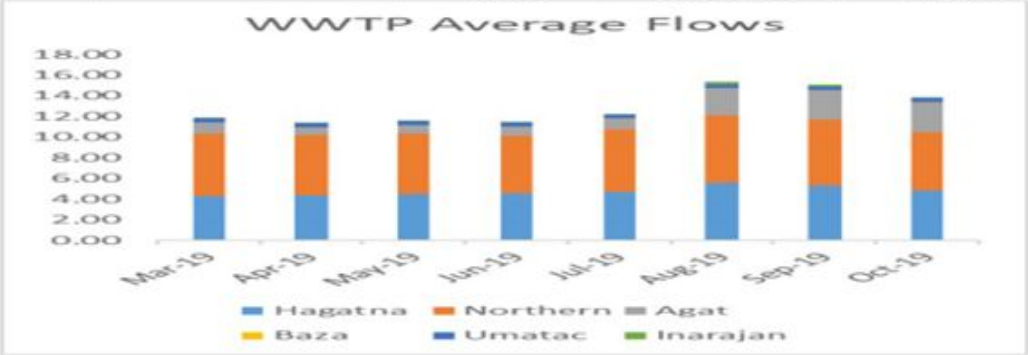
Wastewater Collections –Cleaning/Jetting (October 2019)

Agana Heights / Sinajana

Mongmong-Toto-Maite

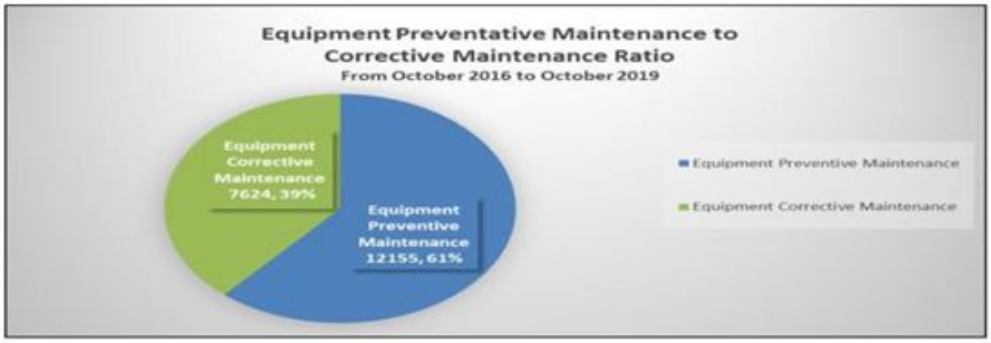
Wastewater Treatment (October 2019)

Monthly Wastewater Treatment Summary - October 2019			
WW Treatment Plants - Flows			
Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. ($)
Hagatna	4.83	532,200	$ 47,898
Northern	5.62	697,260	$ 62,753
Agat	2.93		
Baza	0		
Umatac	0.39		
Inarajan	0.12		
	13.89	1,229,460	$ 110,651



Asset Management (October 2019)

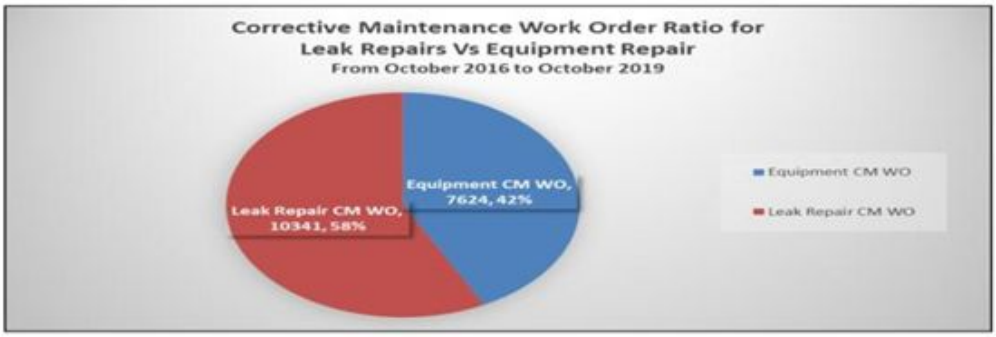
I. Equipment Preventive Maintenance to Corrective Maintenance ***Ratio***



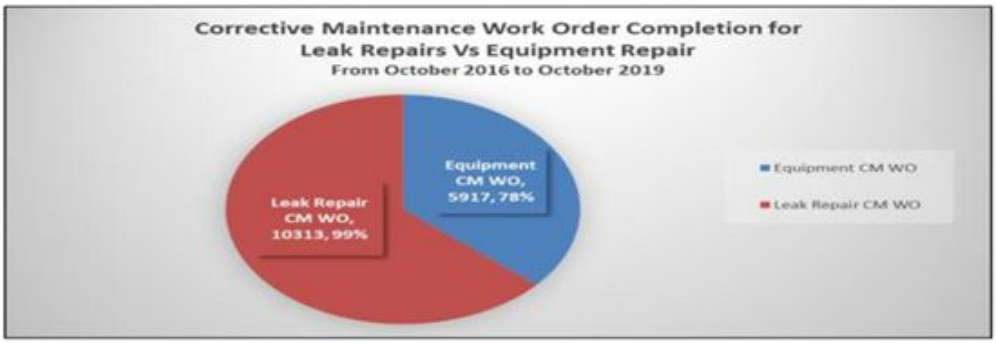
II. Equipment Preventive Maintenance to Corrective Maintenance ***Work Order Completion***

Asset Management (October 2019)

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



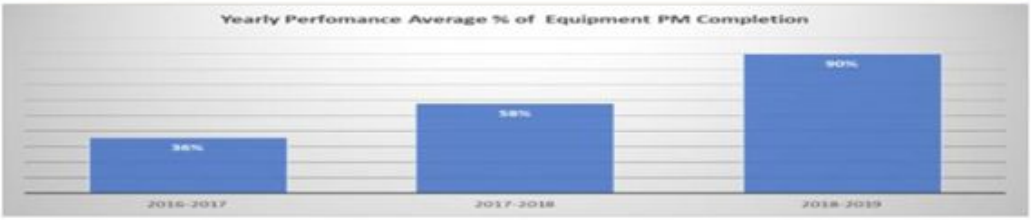
IV. Corrective Maintenance Work Order ***Completion*** for Leak Repairs vs. Equipment Repair



Asset Management (October 2019)

V. Yearly Summary % of Equipment PM Completion by Division

Division	2016-2017 % of PM Completion	2017-2018 % of PM Completion	2018-2019 % of PM Completion
O&M Support	5%	69%	100%
Wastewater Collection	25%	37%	76%
Wastewater Treatment	90%	95%	100%
Water Distribution	40%	58%	95%
Water Production	20%	33%	78%
Yearly % Average	**36%**	**58%**	**90%**



Operational Issues

Production & Distribution

- Handled storm preparation in early October well; reservoir levels were topped off without major issues using standby wells.
- Lost several wells during the storm; some distribution adjustments made to maintain reservoir levels because of Y-9 and F-11 wells going down
- Problems with line breaks on older ACP lines in
  - Toto-Canada
  - Casimiru (multi-day outage)

Wastewater Collection & Treatment

- Pump stations
  - Route 1 pump stations and bypasses continue to be an on-going challenge
  - Still waiting on pump and motor inventory
- Collection System:
  - Route 2 project nearing completion
  - Route 1 and Route 4 projects still in progress; traffic impacts are on-going
  - Route 3 and Route 9 interceptor work is about 41% complete
  - SSO in Mangilao (wetland area behind softball field) related to FOG buildup
    - GWA secured GEPA approval for maintenance of line in wetland in September
    - Cleaning and maintenance of line was scheduled, but spill occurred before we could get it done
    - Mitigation efforts coordinated with GEPA and Army Corps to get equipment access
- Hagatna WWTP
  - Clarifier #1 underwent repairs in October
  - Clarifier #3 change drive repairs in November
- Umatac-Merizo
  - Processes are on-line
  - Substantially complete
  - Ribbon cutting being scheduled for January

Meters from January 2017 through October 2019

COMPLETED FIELD ACTIVITY JAN 2017 THRU OCT 2019 (POSTED IN CIS)	2017	2018	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	TOTAL:	COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Meter Exchange	6487	13353	158	140	444	1583	1212	922	862	455	1516	682	27814	217

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	6079	12259	937	730	518	1231	1135	621	643	470	731	1158	26512
# OF FIELD CREW PERFORMING CHANGE OUTS (MON THRU FRI):	19.4	16.1	1	1	10	8	7	7	7	7	9	7	
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CI	10	6.3	0	0	4	9	6	6	7	6	6	6	
TOTAL:	29	22	1	1	14	17	13	13	14	13	15	13	

REMAINING ACTIVE BADGER LP MODELS TO BE REPLACED AS OF Oct 31, 2019: **5408**

3/4" BADGER METERS IN STOCK AS OF OCT 31 2019:

Size	Meter Description	New Meters Passed	New Meters Untested	Passed Field Meters	MMP	Meters Available
3/4"	METER, Badger AMR 5/8" X 3/4" RCDL Model M25 Disc Meter	981	912	13	0	1906
3/4"	METER, Badger AMR 5/8" x 3/4" **WARRANTY** RCDL Model M25	0	0	0	0	0
3/4"	METER,Badger 5/8"x3/4" NSF61-G RCDL M25LL Disc Meter Integral	582	0	3	0	585
3/4"	METER, Badger AMR 5/8" x 3/4" RCDL Model M25 ***RMI***	0	0	0	0	0
3/4"	METER, Badger E-SERIES 5/8"X3/4" ULTRASONIC	975	0	0	0	975

Backbilling through October 31, 2019

Guam Waterworks Authority

Collections Report[1] on Accounts Backbilled thru October 31, 2019

For fiscal years 2015 through 2020 (Oct)

Accounts Billed			Collection Status											
			Amounts Collected[1]			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	$ 397,245	472	322,558	81%	14	20,967	5%	24	29,833	8%	27	23,887	6%
FY2018	1,374	$ 742,109	1,218	574,467	77%	44	58,154	8%	65	70,172	9%	47	39,315	5%
FY2019	8,327	$ 3,064,384	7,448	1,704,218	56%	100	90,200	3%	614	1,188,420	39%	165	81,547	3%
FY2020	57	$ 8,259	18	1,720	21%	0	-	0%	39	6,539	79%	0	-	0%
Total	**10,312**	**$ 4,212,879**	**9,173**	**$ 2,603,845**	**62%**	**158**	**$ 169,321**	**4%**	**742**	**$ 1,294,964**	**31%**	**239**	**$ 144,750**	**3%**

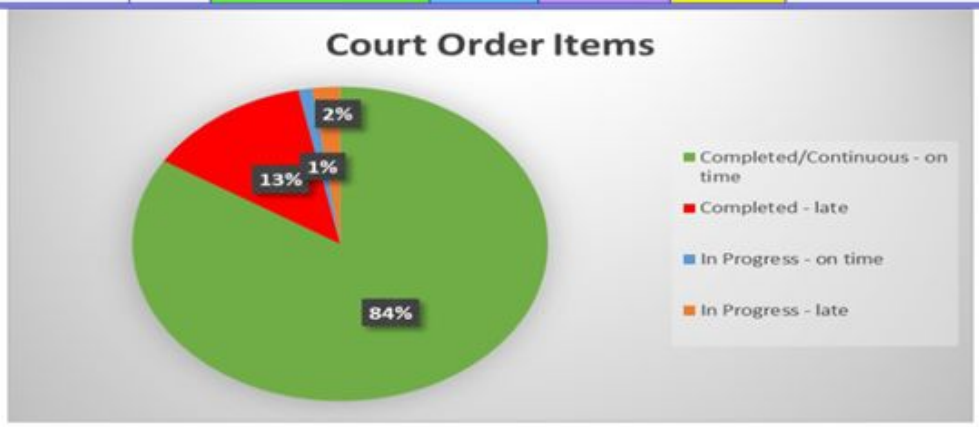
[1] Collections thru November 18, 2019

One Guam Update

- Santa Rosa Tank
  - No update on AAFB response to request for data substantiating operational improvements.
- OEA Projects
  - Working to coordinate remaining Rt 3 / RT 9 Interceptor work
  - Two new monitoring wells sites are being affected by MILCON projects; may have to slightly adjust sites – Navy assisting
- Property Transfers:
  - BPM-1 Monitoring Well: Property was transferred twice; waiting on Navy determination on course of action
  - Cabras waterline: pending completion of Navy CIP replacement
  - Murray Road Sewer Infrastructure: with installation for approval prior to D.C. approval
  - ACEORP water tunnel: Inspections are scheduled for this month
- PUC Rate Case Intervention
  - Navy willing to stipulate
  - Wants COS study

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	78	2	12	1	97.8%



Court Order

Status Information (for August 2019 and September 2019)

- 2 items delayed
  - Water Reservoir Repair. Replacement or Relocation program, CO II C 29(b)(6)(i) – (10 additional tanks by 7th CO anniversary). (Affects final date of the Court Order.)
  - Umatac-Merizo Wastewater Treatment Plant – **Being Commissioned *(formal upgrade startup)* this month (October)**
- Final Date to complete all Court Order items may 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).]
- Overflow or Bypass events reported to USEPA:
  - (Note: GWA has contracted security services that continue to prevent well-site break-ins.)
  - 08-26-2019 CD-18 Barrigada PS, Barrigada; SSO
  - 08-26-2019 CD-25 Mamajanao PS, Tamuning; SSO.
  - 08-26-2019 CD-25 2nd Mamajanao PS, Tamuning; SSO
  - 08-26-2019 543 RT 1, Piti; SSO.
  - 08-26-2019 Serenu Avenue, Tamuning; SSO.
  - 08-26-2019 183 Rameriz St, Ordot; SB.
  - 09-02-2019 CD-20-Mongmong-SSO.
  - 09-05-2019 Mangilao baseball field SSO.
  - 08-04 to 09-05-Umatac Bypass Ends **(Note: this end-of-bypass coincides with the startup of the upgrade of Pump Station 19 which is expected to end this kind of bypass.)**

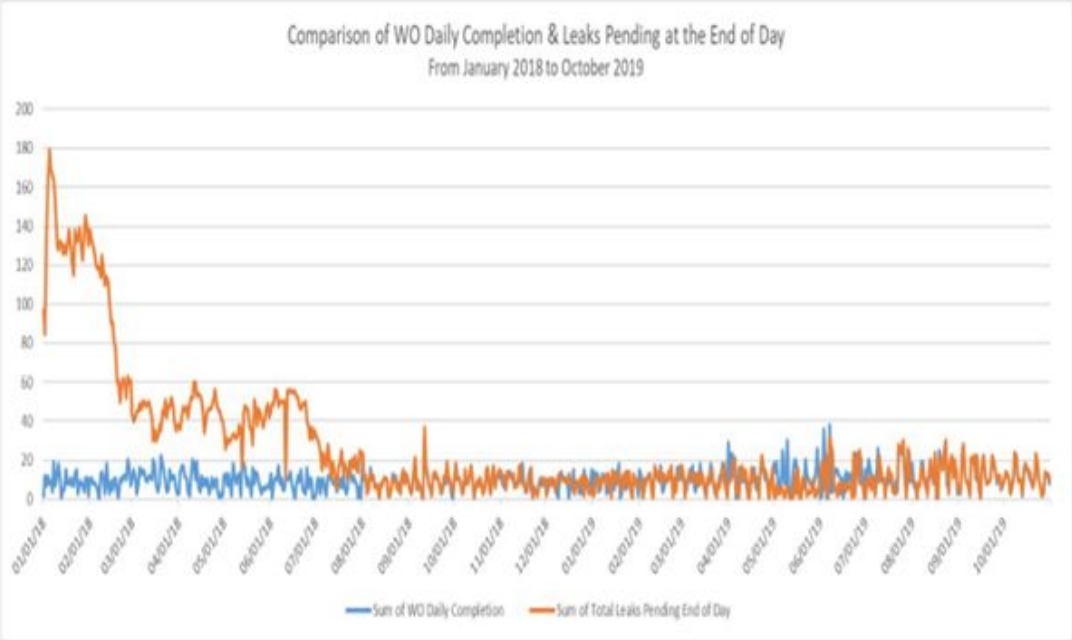
Status Information (for October 2019)

- 2 items delayed
  - Water Reservoir Repair. Replacement or Relocation program, CO II C 29(b)(6)(i) – (10 additional tanks by 7th CO anniversary). (Affects final date of the Court Order.)
  - Umatac-Merizo Wastewater Treatment Plant –**Formal Commissioning *(formal upgrade startup)* is under way.**
- Final Date to complete all Court Order items may 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).]
- Overflow or Bypass events reported to USEPA:
  - 10-21-2019, Chalan Canton Tasi - PS-19 Merizo – Rain
  - 11-07-2019 MH behind Mangilao Mayor's office – FOG.

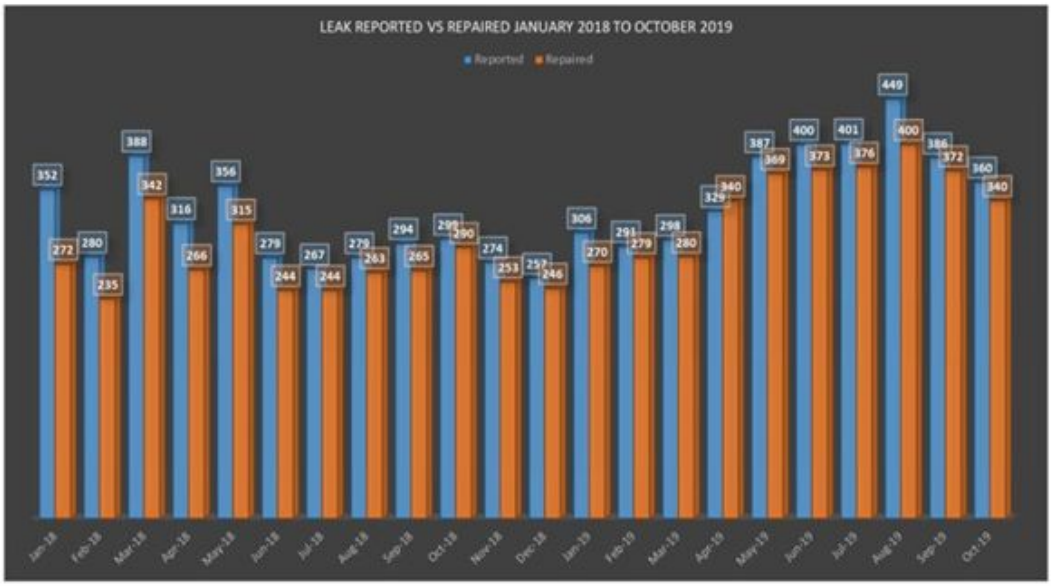
Land Acquisition Summary (as of October 2019)

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	Pending comments from Federal and GovGuam agencies on Section 106 documents 11/07/19.
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2nd 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	Pending comments from Federal and GovGuam agencies on Section 106 documents 11/07/19.

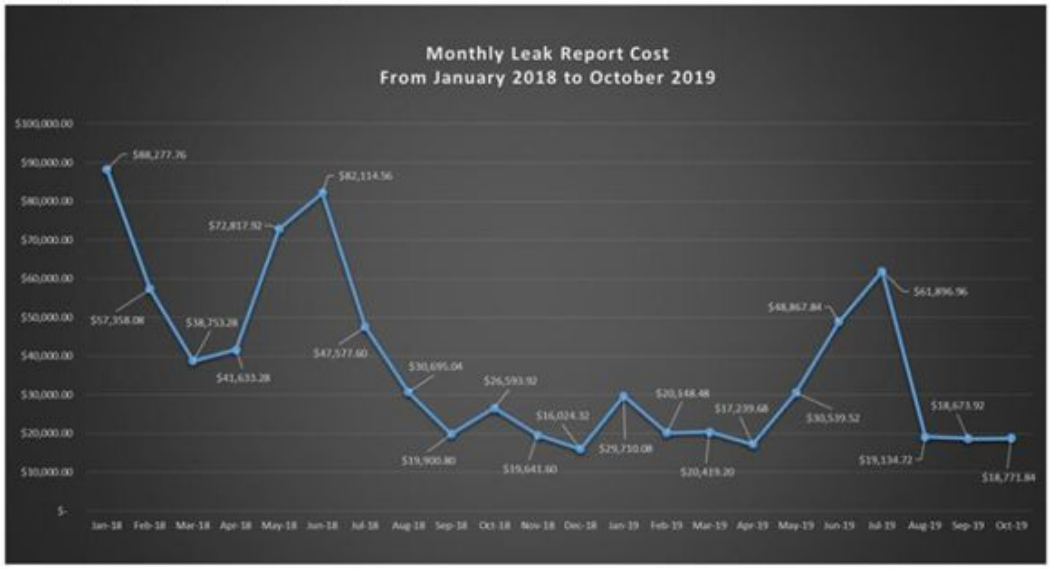
Leak Repair Summary (October 2019)



Comparison of Leaks Reported vs. Leaks Repaired (October 2019)



Monthly Leak Report Cost (October 2019)



Assumptions:

3. Leak rate = 4 gpm
4. Cost per kgal = $4.00

5.2. Financials

CFO Taling Taitano gave a brief report on the financials. She said this is first month of FY so the month to date and year to date are the same. Operating revenues are down and we are

lacking 1 day billing vs. last year – 28 vs. 29. Year over year, operation expenses are down so earnings from operations are 1.9 vs. 2.1. She added that management is trying to hold the expenses down.

RE Schedule G – all line agencies are required to pay their bills with purchase orders. If there is no purchase order DOA will not pay. DOA is using this so the agencies are adhering to their budgets. There was concern voiced about this affecting aging receivables and discussion followed on specific accounts i.e. GIAA, DOA and Agat Mayor Office.

5.3 Resolution No. 07-FY2020 Contract Renewal with JMI Edison for Submersible Pumps and Motor Inventory for Deep Wells

This request will be used to purchase pumps and motors to improve reliability of GWA's water supply system. The project is to provide submersible pumps and motors to GWA Deep Wells Production Facilities to ensure adequate stock is available at all times and bring back online existing down wells. The objective is to maintain adequate pumps and motors in inventory at all times.

The cost of this procurement is Seven Hundred Fourteen Thousand One Hundred Two Dollars and Eleven Cents ($714,102.11) and the funding source is internally funded CIPs

Actual Total Purchases	Motors	Pumps	Total	Ave / Qtrly	Start Date	End Date
	91	123	214			
3 Year contract	$679,389.14	$403,511.28	$1,082,900.42	$120,322.27	5-Jun-15	4-Jun-18

**2019 Estimated Order	Est Qty Qtrly Order	2019 Revised Order	One Year Order
2019 Motor Spares	13	$103,965.05	$415,860.18
2019 Pump Spares	24	$80,251.59	$321,006.37
TOTAL AMOUNT		**$184,216.64**	**$736,866.55**

**PUC Docket 19-02, Approved Nov. 29, 2018.

***2020 TOTAL	Est Qtrly Order	Est Qtryl Cost		2020 TOTAL Qty	2020 T
2020 Motor Spares	15	$111,742.44		60	$44
2020 Pump Spares	20	$66,783.09		79	$26
	35	**$178,525.53**		**139**	**$71**

The indefinite quantity contract was in place for an initial term of 3 years and two (2) years one-year option to renew. Purchases will be ongoing on an as-needed basis over the life of the contract term. Below is detailed breakdown:

Contract term is three (3) years and Notice to Proceed on June 4, 2015
Start of 3 Year Contract – June 5 2016; End of 3 Year Contract – June 4, 2018
1st Year Renewal – August 10, 2018; End of 1 Year Renewal – August 9, 2019
2nd Year Renewal – August 23, 2019; End of Year 2 Renewal – August 22, 2020

Comm. Guthertz motioned to approve Resolution 07-FY2020 second by Comm. Sanchez. There was no objection or further discussion and the motion carried with the vote 4 ayes, 1 absent.

5.4 **Resolution No. 08-FY2020 Contract for Construction of the Outfall Effluent Diffuser Installation Project for Upgrade of the Northern District Wastewater Treatment Plant**

The objective of the Upgrade of the Outfall Effluent Diffuser Installation Project for Northern District Wastewater Treatment Plant project is to install the effluent diffuser which is required to meet the NPDES Discharge permit for the plant. The diffuser will connect to the current outfall pipe which has a single discharge point for all the WWTP effluent. The diffuser is 400 feet long with forty (40) 6" outlets that will distribute the effluent over a much larger area to take advantage of the dilution requirements specified in the NPDES Permit.

This project is an essential component of the infrastructure upgrades necessary to provide adequate treatment in compliance with current regulatory requirements for the protection of Guam's water resources and marine environment, as well as to support the new facilities to be constructed as part of the military build-up. The project is urgent as it is required in order to meet the schedule requirements in the Grants and for the opening of the Marine Cantonment from which the plant will receive wastewater flows.

The work will be completed at the existing outfall location which is near Tanguisson Beach. The majority of the work will be completed offshore with some valve replacements required just north of Tanguisson Beach.

GWA Management seeks CCU approval for the total negotiated amount of Seven Million Seventy-Seven Thousand Six Hundred Dollars ($7,077,600.00); plus a seven point three percent (7.3%) contingency of Five Hundred Sixteen Thousand Nine Hundred Forty-One Dollars and Twenty Cents ($516,941.20), to bring the total authorized funding amount to Seven Million Five Hundred Ninety-Four Thousand Five Hundred Forty-One Dollars and Twenty Cents ($7,594,541.20);

The anticipated completion of the construction activities by the contractor is December 31, 2021 and the funding for the NDWWTP Upgrade will be from the U.S. Department of Defense, Office of Economic Adjustment, General Assistance Grant (OCON676-16-02) after reallocation of grant funds by OEA from General Assistance Grants (OCON676-16-01 and OCON-18-05).

This project was bid on two separate occasions and on each bid, only one bid was received. The only bidder in each case was Healy Tibbetts Builders Inc. In both cases the bids received exceeded the available budget and were rejected.

Following rejection of the bids and the fact that only one bid was received on each bid, and by the same bidder, the project was deemed a sole source procurement and a final scope and price was negotiated with Healy Tibbetts Builders Inc. for the project.

Healy Tibbetts Builders Inc. is recommended for award of the Outfall Effluent Diffuser Installation Project for Upgrade of the Northern District Wastewater Treatment Plant project.

Comm. Limtiaco inquired if the sole source resulted in cost lower than others by how much? The GM said yes and by $2M.

Comm. Guthertz motioned to approve Resolution 08-FY2020 second by Comm. Limtiaco. There was no further discussion or objection and the motion passed 4 ayes and 1 absent.

5.5 Resolution No. 09-FY2020 Adoption of General Provisions to Guam Waterworks Authority Operating Budgets

General provisions to the budget will allow the General Manager to transfer up to ten percent (10%) of the total budget between and among budget categories to address changing priorities throughout the fiscal period. The provisions request to increase the General Manager's contractual authority from $750,000 up to $1,000,000 without first obtaining CCU approval. This request allows GWA to expeditiously finalize contracts following lengthy procurement processes.

FY2020 Budget implementation started on October 1, 2019. Expenses at this time are based on FY2019 Budget revenues. Until superseded by the CCU, the provisions included in this resolution will apply to matters going forward. The funding source for the budget is O&M

Comm. Guthertz motioned to approve Resolution 09-FY2020 second by Comm. Sanchez. The vote was 4 ayes, 1 absent

6. ANNOUNCEMENTS

6.1 Next CCU Meetings

The Chairman announced that the next CCU meeting would be a GWA work session on Jan. 21; a GPA work session on Jan. 23 and the CCU meeting on Jan 28.

Legal Counsel recommended the meeting move to Executive Session

7. EXECUTIVE SESSION

7.1 Litigation Matter

Comm. Sanchez motioned to recess the meeting until 8:00 a.m. on December 4, 2019 second by Comm. Guthertz. The motion passed unanimously and the meeting was recessed.

CONTINUATION of Regular CCU Board Meeting of November 26, 2019
CCU Conference Room, Gloria B. Nelson Public Service Building
8 a.m., December 4, 2019

The CCU Chairman called the meeting to order at 8:10 a.m. He said three (3) Commissioners were present and that there was a quorum. Comm. Limtiaco and Guthertz were absent and excused. He said this is a continuation of the meeting of November 26th..

Others in attendance include:

Commissioners:

Joseph T. Duenas	CCU Chairman
Francis Santos	CCU Vice Chairman
Simon A. Sanchez	Commissioner

Executive Management:

Miguel Bordallo	General Manager / GWA
Kelly Clark	Legal Counsel / GWA

Management & Staff:

Lou Sablan	Board Secretary / GPWA

Guest:

Lorraine Cruz	Court Reporter

The chairman asked for a motion to move the meeting to executive session. Comm. Sanchez motioned and second by Comm. Santos.

After executive session the meeting was moved back to open session. It was 10:00 a.m. The Chairman called for a motion to adjourn.

Comm. Sanchez moved and second by Comm. Santos.

8. ADJOURNMENT
There being no other business to bring before the Commission, the meeting adjourned at 10:00 a.m.

\\s\\
Bls

Attested

_____ _____
JOSEPH T. DUENAS, Chairman MICHAEL T. LIMTIACO Secretary

GENERAL MANAGER'S REPORT

APRIL 28, 2020

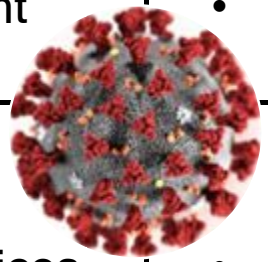
COVID-19
Operational Updates

OPERATIONAL CONTINUITY

- Power generation steady & reliable
- Transmission & distribution steady & reliable
- Divisional support continued
- Employee availability Excellent

HEALTH & SAFETY

- Work sites restricted to essential and authorized employees
- Customer lobbies closed
- Work areas reconfigured to ensure distancing
- Evolve to virtual participation/work



SERVICE CONTINUITY

- Customer payments and services available online, by telephone, drop-off, social media
- Urgent/critical customer work orders completed

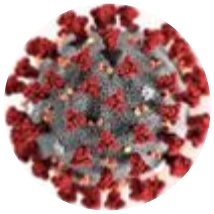
PANDEMIC ASSISTANCE

- Assisting Governor, GMH, Public Health, and DPW through Emergency Operations Center (GHS)

DAYS SHUTDOWN
41

DAYS TIL REOPEN
7

COVID-19 - Operational Updates

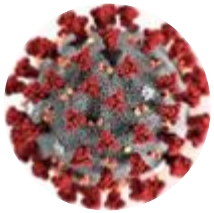


Mission-critical functions directly related to generation, transmission, and distribution of electric service continue

Key Projects	• Cabras #2 minor overhaul completed. Online as of March 29 • Ukudu Plant permitting continues but potential delay • ESS commissioning suspended temporarily
Key Activities	• LEAC reduction ($0.110039/kwh) approved eff. April 1st billings • Consent Decree entered into judgement eff. April 20, 2020 • Additional fuel oil ordered to take advantage of depressed pricing
Employees	• 3 known/presumed confirmed cases. All have recovered • Unavailability peaked at 27 and currently 11 of 494 unavailable
Customers	• Expanded payment methods: GWA drive-thru, GPWA pay-by-phone, Fadian drop box, paygpa, temp VISA option for business accounts • Services provided via telephone, email, social media, mail, drop box
Communication	• Public service announcements, website, social media • Targeted SMS/email for prepaid customer • Employee emailed daily updates • Daily availability, energy, fuel, outage reporting

DAYS SHUTDOWN
41

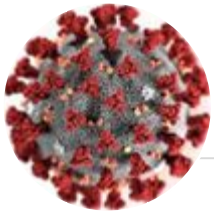
COVID-19 - Operational Updates

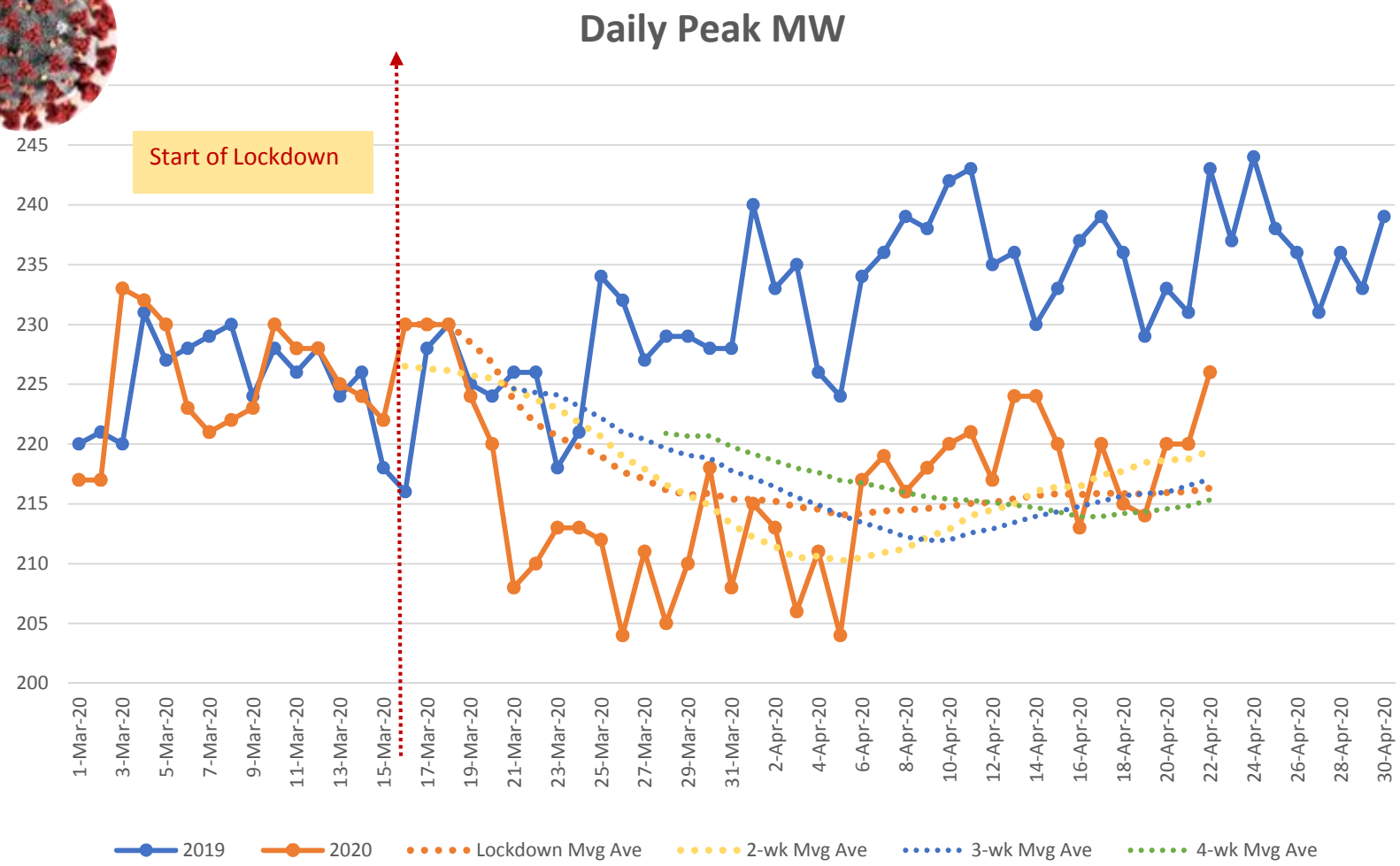


IMPACTS

Financial	• ↓ 9% Sales for late March and April • ↓ 18% Customer Bills reduced April 1st due to lower fuel prices
Demand	• Peak Demand dropped to lowest point (204 MW) in March but has increased in April (226 MW)
Business Operations	• Adjustment of physical workspaces and schedules to accommodate new public health protections and guidelines • Backlog of customer work orders
Key Projects	• UKUDU potentially delayed • ESS delayed • Fuel tank refurbishment delayed • Phase II projects delayed • Phase III OPA Hearings delayed

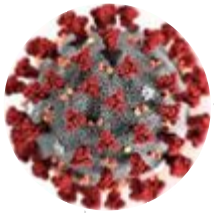
PEAK DEMAND RECOVERING

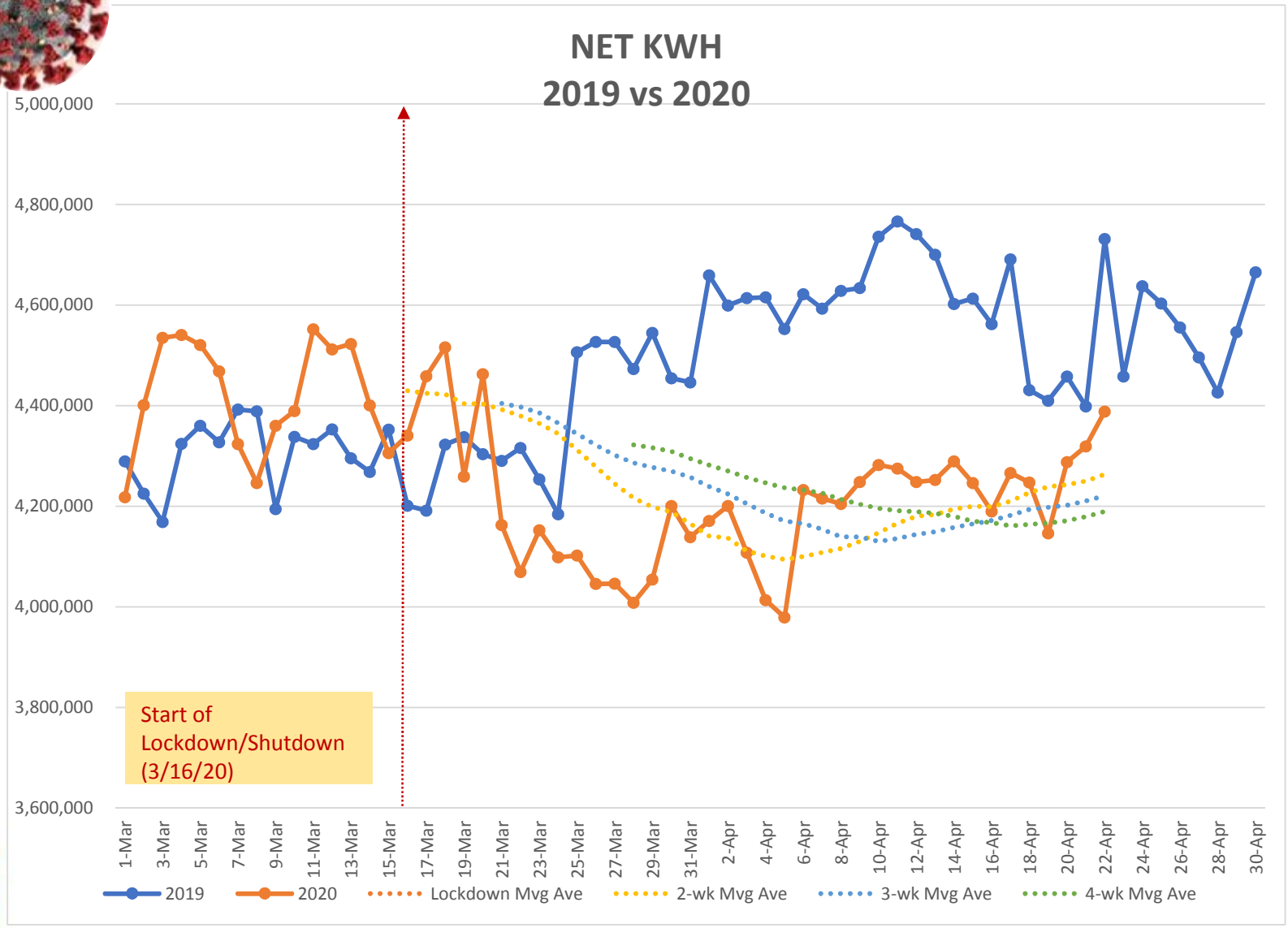




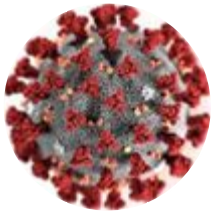
NET KWH PRODUCTION RECOVERING

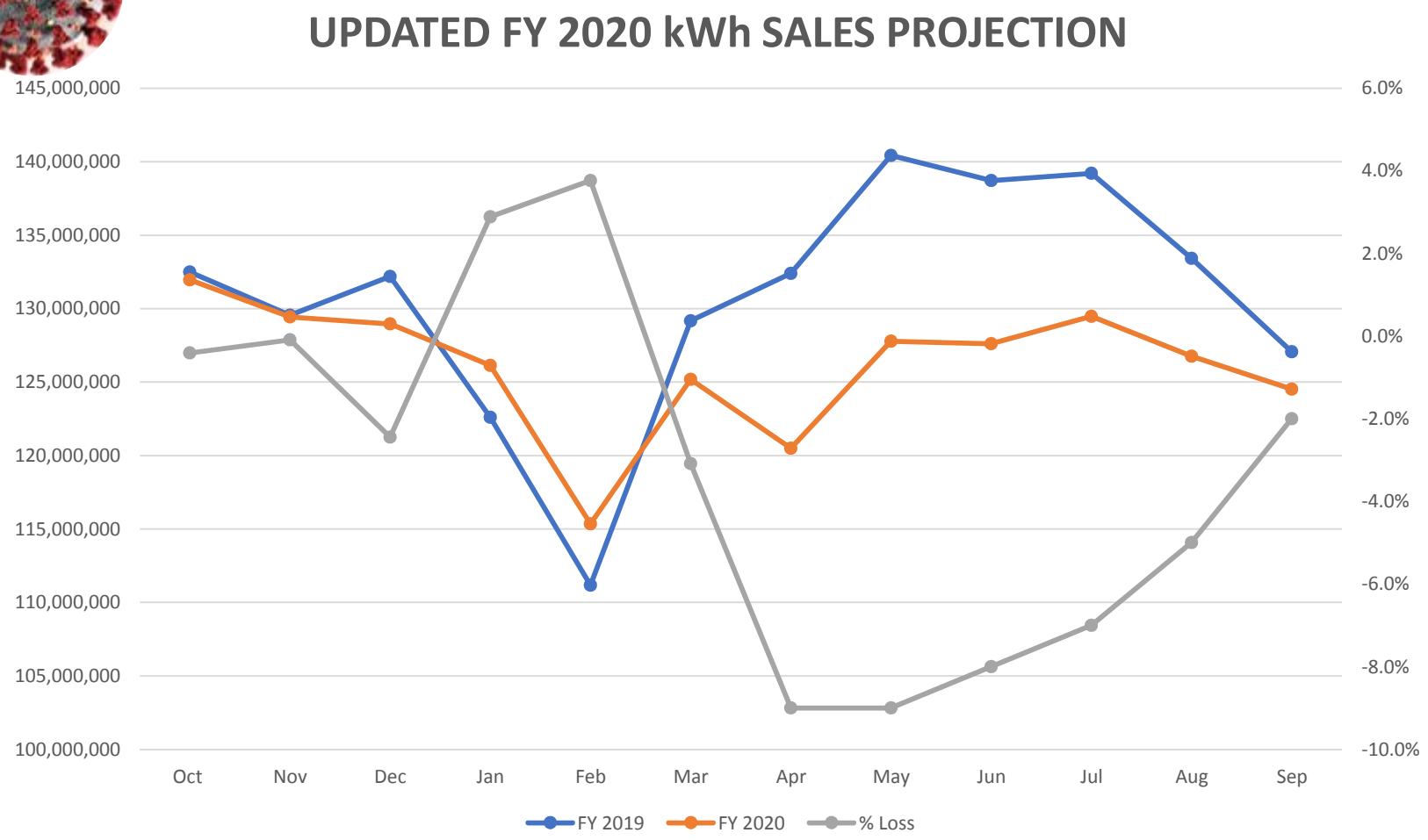
Sales Tracks about 94% of Net kWh



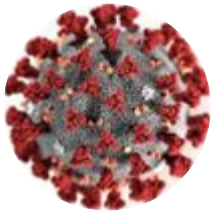


COVID-19 - IMPACT ON SALES





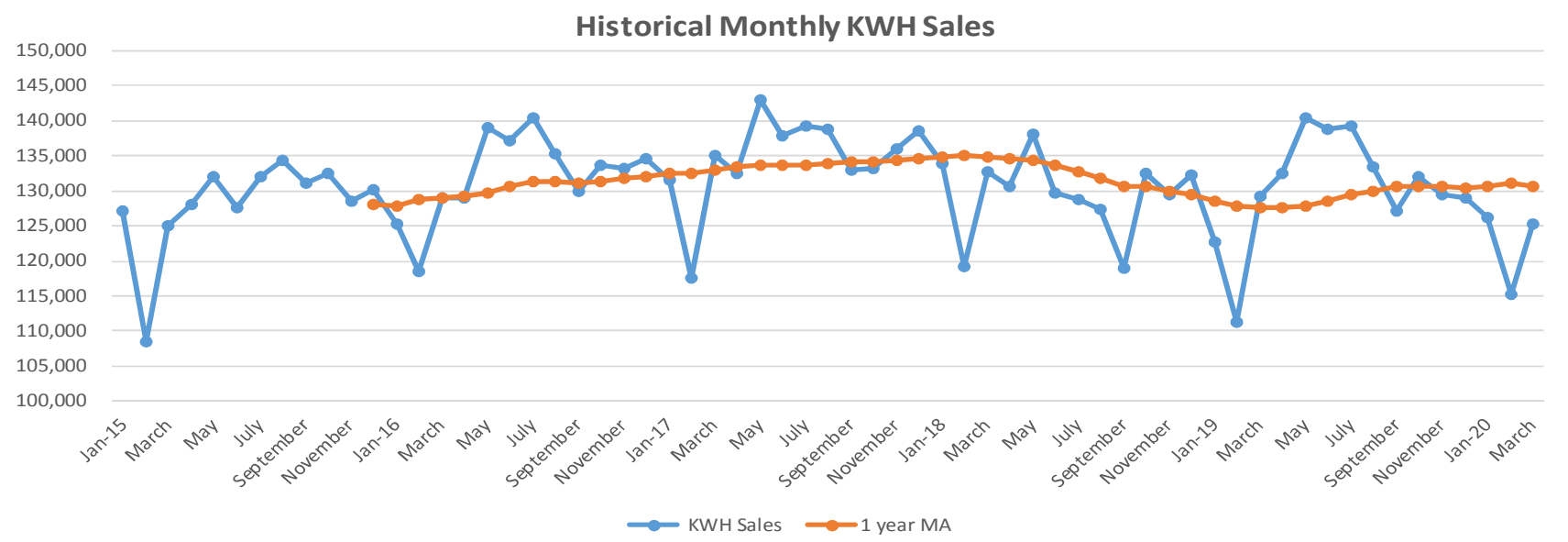
FY 2020 REVENUE LOSS - $5.7M



PROJECTED REVENUE LOSS:

Month	FY 2019 KWH	FY 2020 KWH	% Change	KWH Variance	Base Revenue Variance Base @$0.098/Kwh
Oct	132,488,734	131,952,844	-0.4%	(535,890)	
Nov	129,537,402	129,421,048	-0.1%	(116,353)	
Dec	132,189,902	128,957,692	-2.4%	(3,232,210)	
Jan	122,589,564	126,130,305	2.9%	3,540,741	
Feb	111,158,952	115,346,464	3.8%	4,187,511	
Mar	129,170,318	125,185,262	-3.1%	(3,985,056)	($390,535)
Apr	132,395,702	120,480,088	-9.0%	(11,915,613)	($1,167,730)
May	140,411,830	*127,774,765*	-9.0%	(12,637,065)	($1,238,432)
Jun	138,703,568	*127,607,282*	-8.0%	(11,096,285)	($1,087,436)
Jul	139,203,828	*129,459,560*	-7.0%	(9,744,268)	($954,938)
Aug	133,421,884	*126,750,790*	-5.0%	(6,671,094)	($653,767)
Sep	127,049,848	*124,508,851*	-2.0%	(2,540,997)	($249,018)
TOTAL	**1,568,321,532**	**1,513,574,952**	**-3.5%**	**(54,746,580)**	***($5,741,857)***

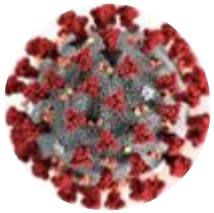
SALES BY RATE CLASS

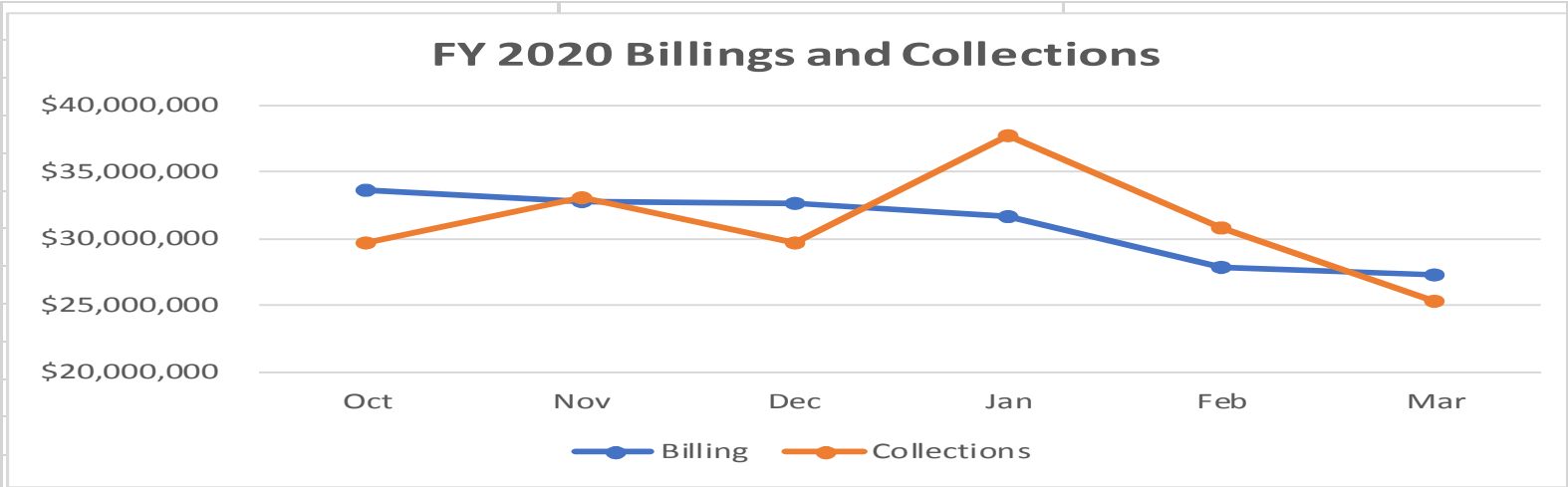


Rate Class MWH:

Rate Class	Mar-18	Mar-19	Mar-20	Mar 2020 versus Mar 2019
Residential	41,542	40,400	43,576	7.9%
Small General Non Demand	6,977	6,549	5,016	-23.4%
Small General Demand	15,917	15,251	14,833	-2.7%
Large Power	26,155	24,794	21,598	-12.9%
Government Small Non Demand	1,194	1,193	667	-44.1%
Small Government Demand	7,889	8,145	8,360	2.6%
Government Large	6,266	5,984	5,578	-6.8%
Navy	25,998	26,078	24,905	-4.5%

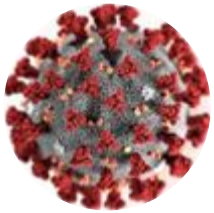
FY 2020 BILLINGS AND COLLECTIONS





FY 2020	Billing	Collections
Oct	$ 33,590,910	$ 29,641,313
Nov	$ 32,756,688	$ 33,066,937
Dec	$ 32,648,275	$ 29,708,886
Jan	$ 31,659,839	$ 37,674,261
Feb	$ 27,870,482	$ 30,805,800
Mar	$ 27,350,894	$ 25,352,559
April as of April 23th:		$ 17,900,000

COVID-19 - Operational Updates



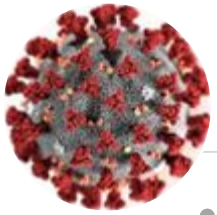
PROJECTED FY 2020 FINANCIALS

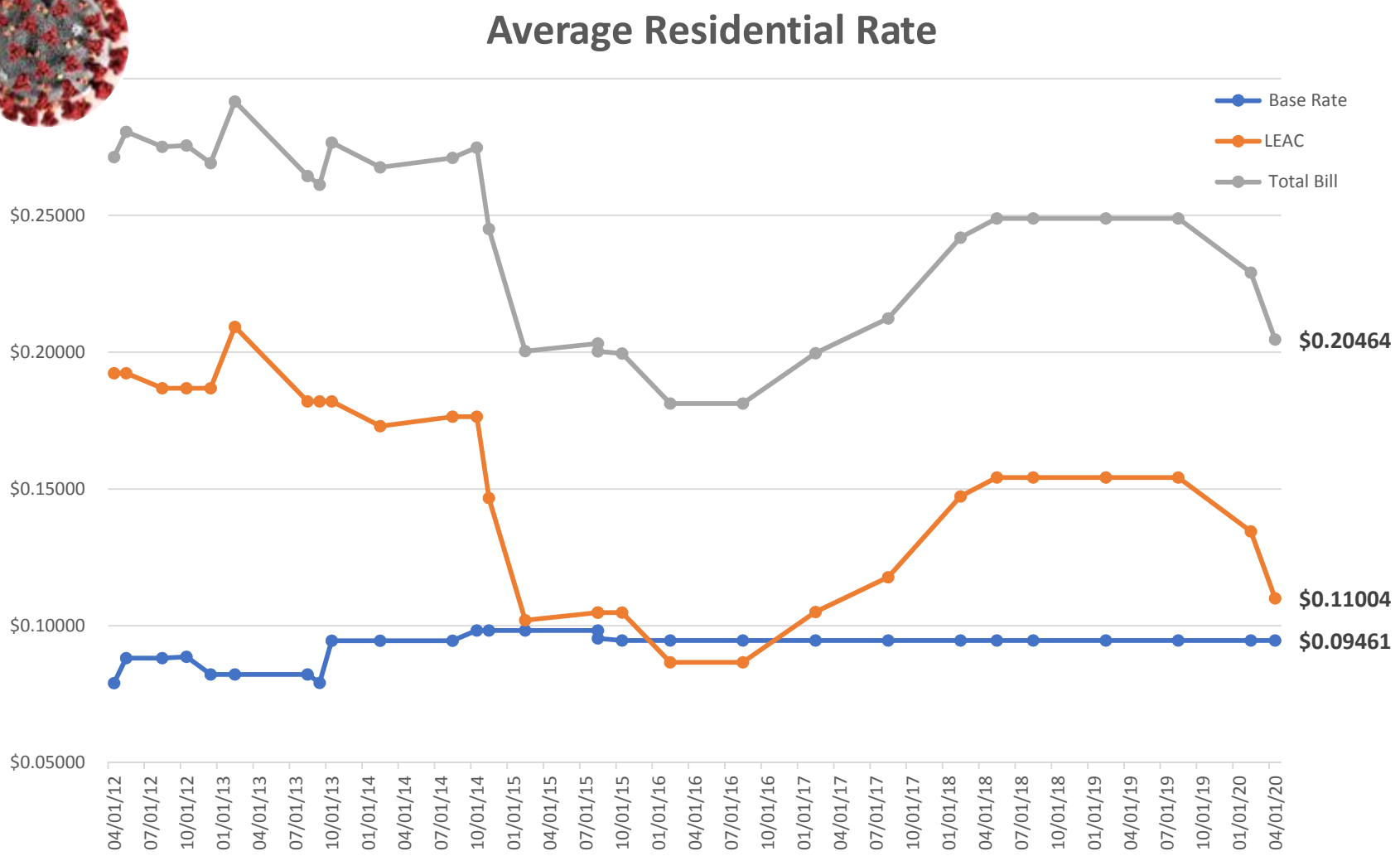
Proforma Income Statement	Actual 2019	Budget FY2020	Projected to Year End	Varince to Budget	% Change
Existing Base Rate Revenues	$ 160,863	$ 163,763	$ 151,671	$ (12,092)	-7%
Fuel Revenues	238,870	270,418	188,500	(81,918)	-30%
Miscellaneous Revenues	3,219	2,160	2,243	83	4%
Total Revenues	402,952	$ 436,341	$ 342,413	(93,928)	-22%
Bad Debt Expense	(415)	$ (1,091)	$ (1,091)	0	0%
Net Operating Revenues	**402,537**	**435,250**	**341,323**	**(93,927)**	-22%
Total Operating Expenses	363,483	404,878	313,388	91,490	23%
Earnings From Operations	**39,054**	**30,372**	**27,935**	**(2,437)**	-8%
Interest expense and other expenses	(23,886)	(24,110)	(24,110)	-	0%
Change in net position	**$ 15,169**	**$ 6,262**	**$ 3,825**	**$ 2,437**	39%

Debt Service Coverage Calculation

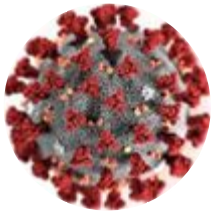
Debt Service Coverage (Bond Method)	**1.84**	**1.56**	**1.51**
Debt Service Coverage (S&P Method)	**1.51**	**1.37**	**1.32**

COVID-19 - LEAC Updates

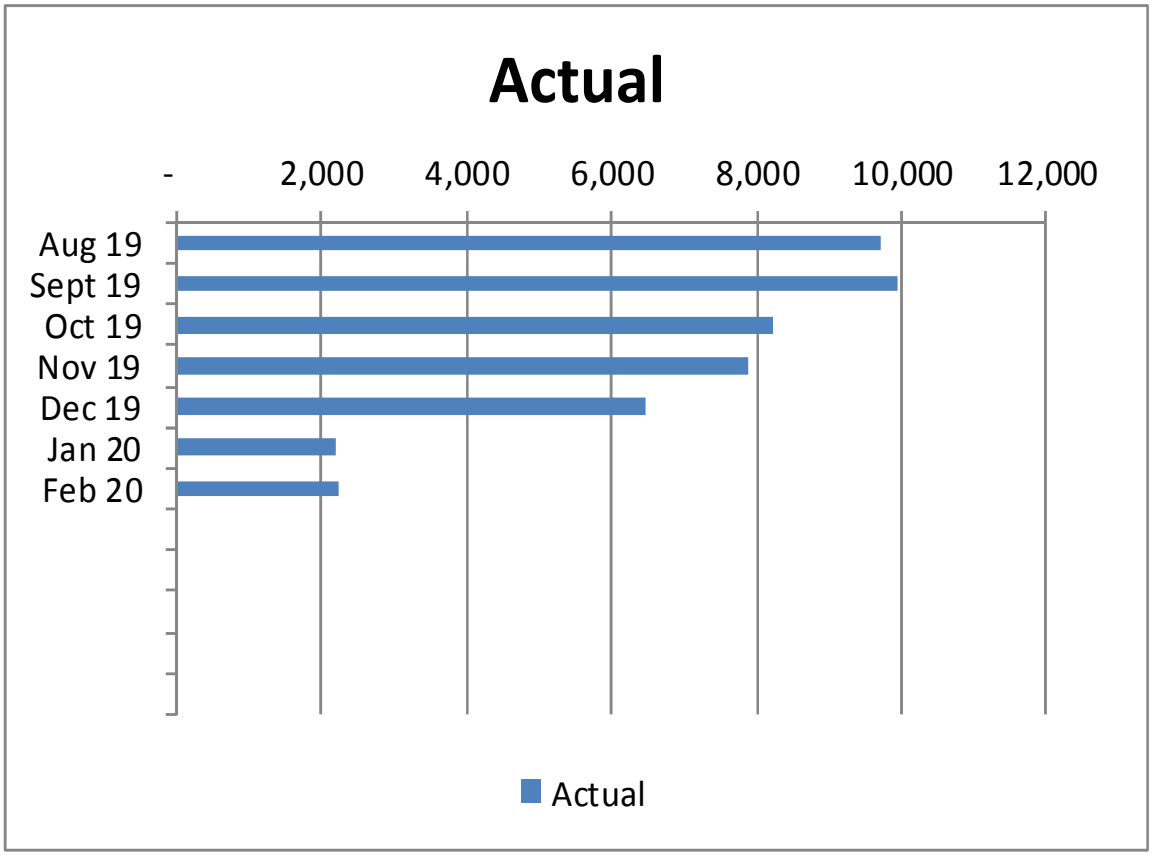




COVID-19 - LEAC Updates



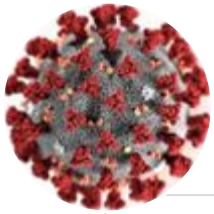
LEAC



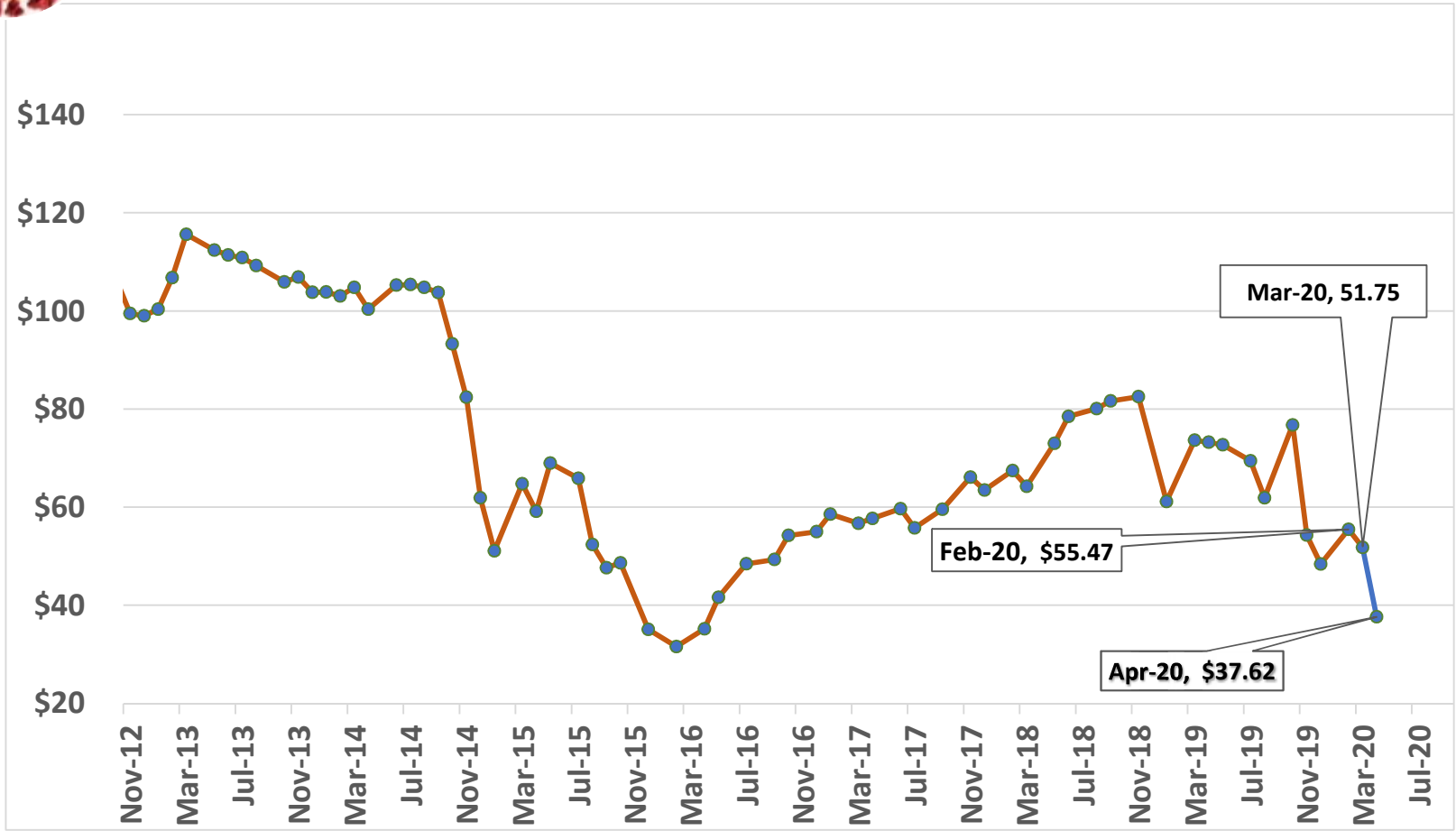
LEAC

(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
Feb 20	2,243

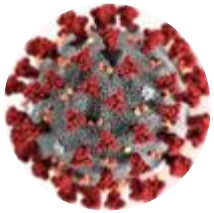
Residual Fuel Oil Purchased Price



GPA Fuel Purchases (Per Barrel)



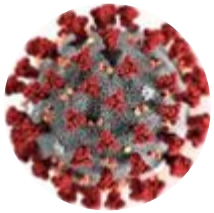
Projected Residual Fuel Oil Supply



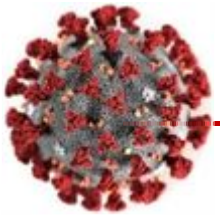
GPA Fuel Oil Inventory

Date		Estimated	Residual Fuel Oil Inventory
	Delivery Schedule	**Average $/BBL**	**Total Days Supply**
4/23/2020	**Existing Inventory**	$53.00	42
4/25/2020	**260,000 Barrels Delivery**	$37.00	92
5/15/2020	**350,000 Barrels Delivery**	$35.00	132

LEAC ADJUSTMENT SCHEDULE



- **May CCU Meeting GPA to provide recommendations for August 2020 – January 2021 rate**
- **Deadline for filing with PUC is June 15, 2020**
- **No change in LEAC recommended at this time since there has not been any changes in fuel oil inventory cost. GPA to review if another interim adjustment could be made for this period once GPA knows what the new shipment of 350K will cost and future forward pricing would look like. A recommendation will be provided to CCU at the May meeting.**



COVID-19 Moving Forward

RECOVERY

DAYS TIL REOPEN
7

Full, fluid business operations during ongoing public health emergency while ensuring health & safety protections, accountability, and transparency

Workplaces

- Controlled entry-points & temperature checks
- PPE required (face covering/masks, at min)
- Modification of common areas to limit congregation
- Provide plexiglass dividers between employee and customer
- Limit access to workplaces to employees only
- Provide specific employee/customer meeting locations
- Increased cleaning/disinfection of common & high-traffic areas

Employees

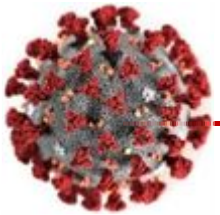
- Ill employees to take leave; RTW with medical clearance
- Monitor for indicative illness symptoms
- Consideration of temporary remote work & flexible schedule, if possible/feasible, especially for vulnerable/high-risk employees

Customers

- Promote contactless interaction (online, telephone, email, SM, mail, drop box)
- Payment plans may be extended with proven payment performance
- Continue expanded payment methods: GWA drive-thru, GPWA pay-by-phone, Fadian drop box, paygpa, temp VISA option for business accounts
- Implement additional temporary services as needed: manåmko' mornings, Fadian payment drive-thru, online pay plan process, bulk transaction appointments

GUAM CCU

GUAM POWER AUTHORITY GPA



PREPARATIONS FOR RETURN TO NEW-NORMAL SERVICE

All Divisions Preparing New Standard Operating Procedures which focuses on providing services thru social distancing and limited direct contact amongst employees and customers

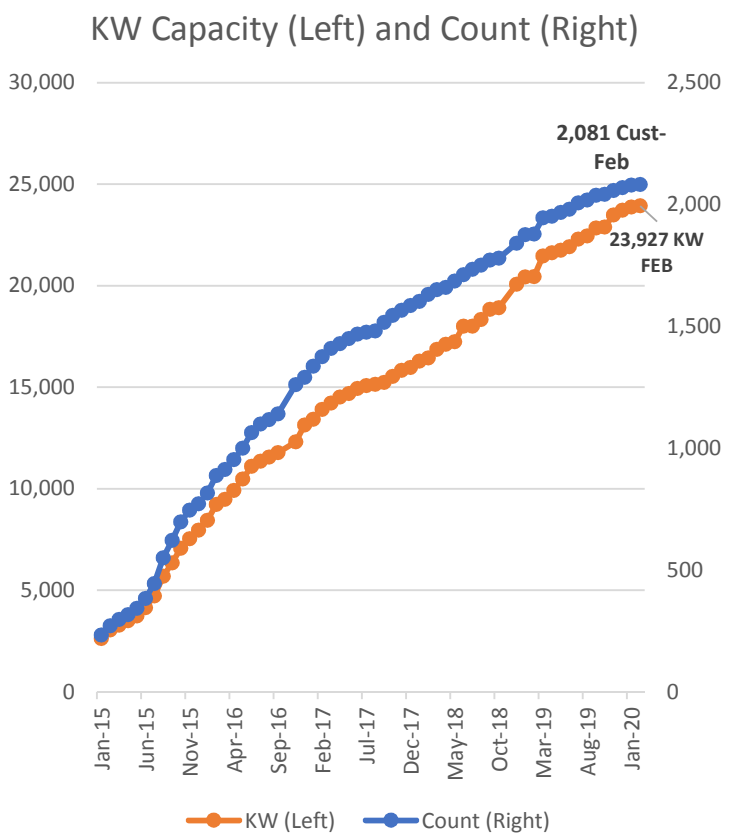
Service Centers	• Provide 6-foot spacing markers in payment lines • Install plexiglass between customer representatives and customer • Provide for drive-thru payment windows • Adjust working hours to minimize huge gatherings
Fadian Facility	• Access into workplaces limited to employees • Establish employee/customer meeting areas • Review workspaces to insure adequate spacings
Generation Plants	• Access restricted to employees • Access to others require facility manager approval
T&D Facilities	• Access restricted to employees • Access to others require facility manager approval

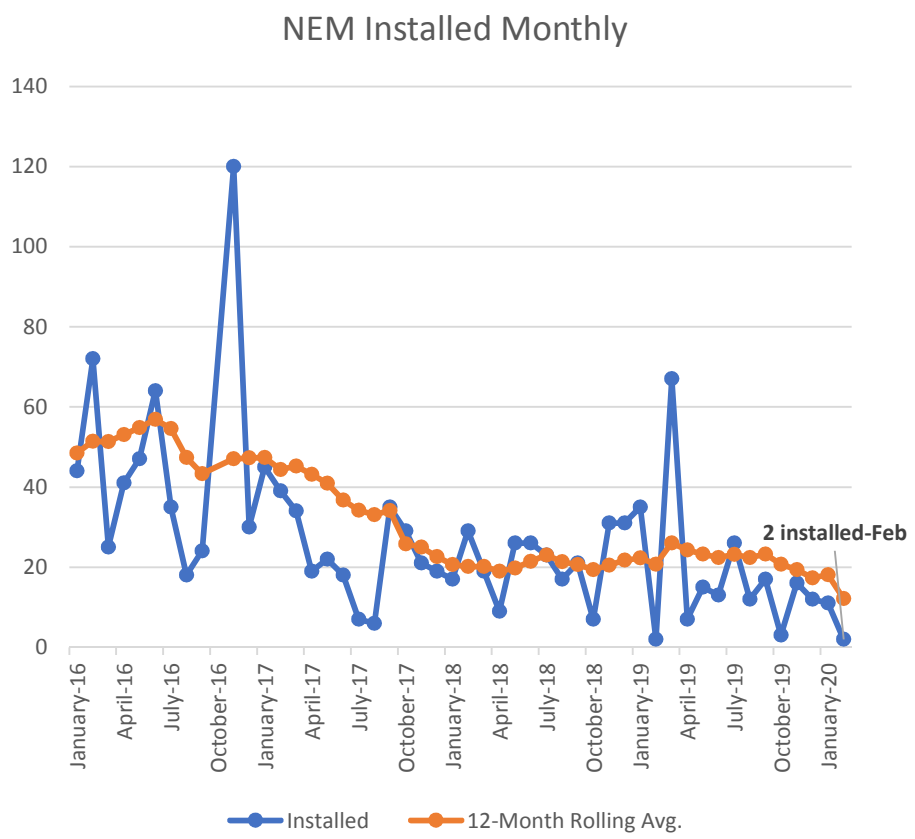
DAYS SHUTDOWN	DAYS TIL REOPEN
41	7

Other Data

1. NET Metering
2. DSM
3. Generation KPIs

1. Net Metering (NEM) Growth Thru February 2020:



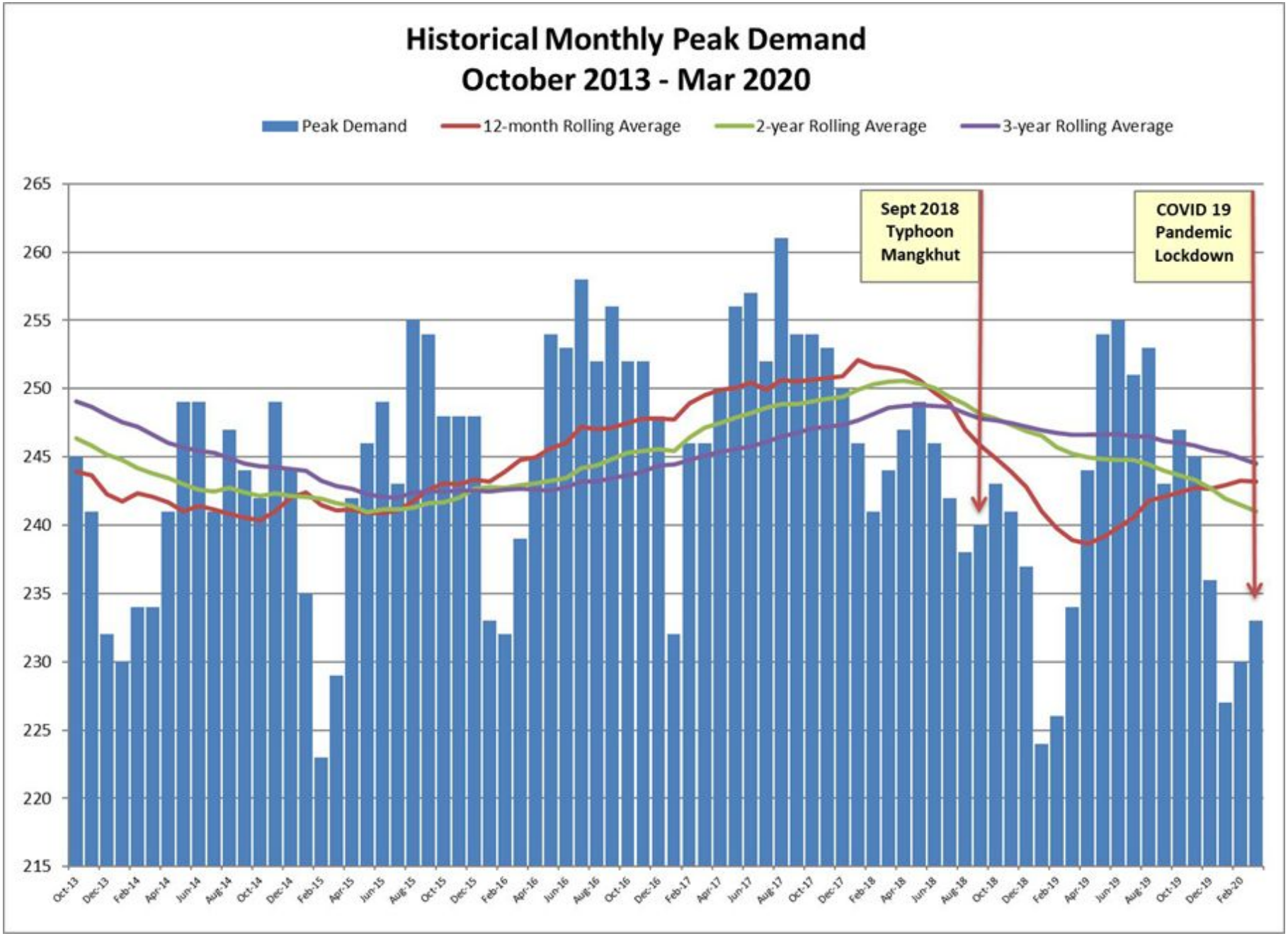


2. DSM Program:

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

SUMMARY

Description	FY16	FY17	FY18	FY19	FY20 As of 03/31/20	Total to Date
Regular/OT Pay	$11,348.80	$22,256.00	$26,121.83	$50,715.19	$17,610.32	$128,052.14
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	$ 299,300.00	$ 3,735,750.00
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	$26,600.00	$204,825.00
Total Expenses	**$200,527.30**	**$680,706.05**	**$1,554,524.33**	**$1,553,190.19**	**$345,510.32**	**$4,334,458.19**
Bank Interest (+)	$1,676.42	$1,722.74	$1,222.29	$730.05	$246.83	$5,598.33
Bank Fees	$155.00	$1,032.06	$1,085.08	$1,247.54	$210.00	$3,729.68


Historical Monthly Peak Demand
October 2013 - Mar 2020
Peak Demand
12-month Rolling Average
2-year Rolling Average
3-year Rolling Average
Sept 2018 Typhoon Mangkhut
COVID 19 Pandemic Lockdown
265
260
255
250
245
240
235
230
225
220
215
Oct-13
Dec-13
Feb-14
Apr-14
Jun-14
Aug-14
Oct-14
Dec-14
Feb-15
Apr-15
Jun-15
Aug-15
Oct-15
Dec-15
Feb-16
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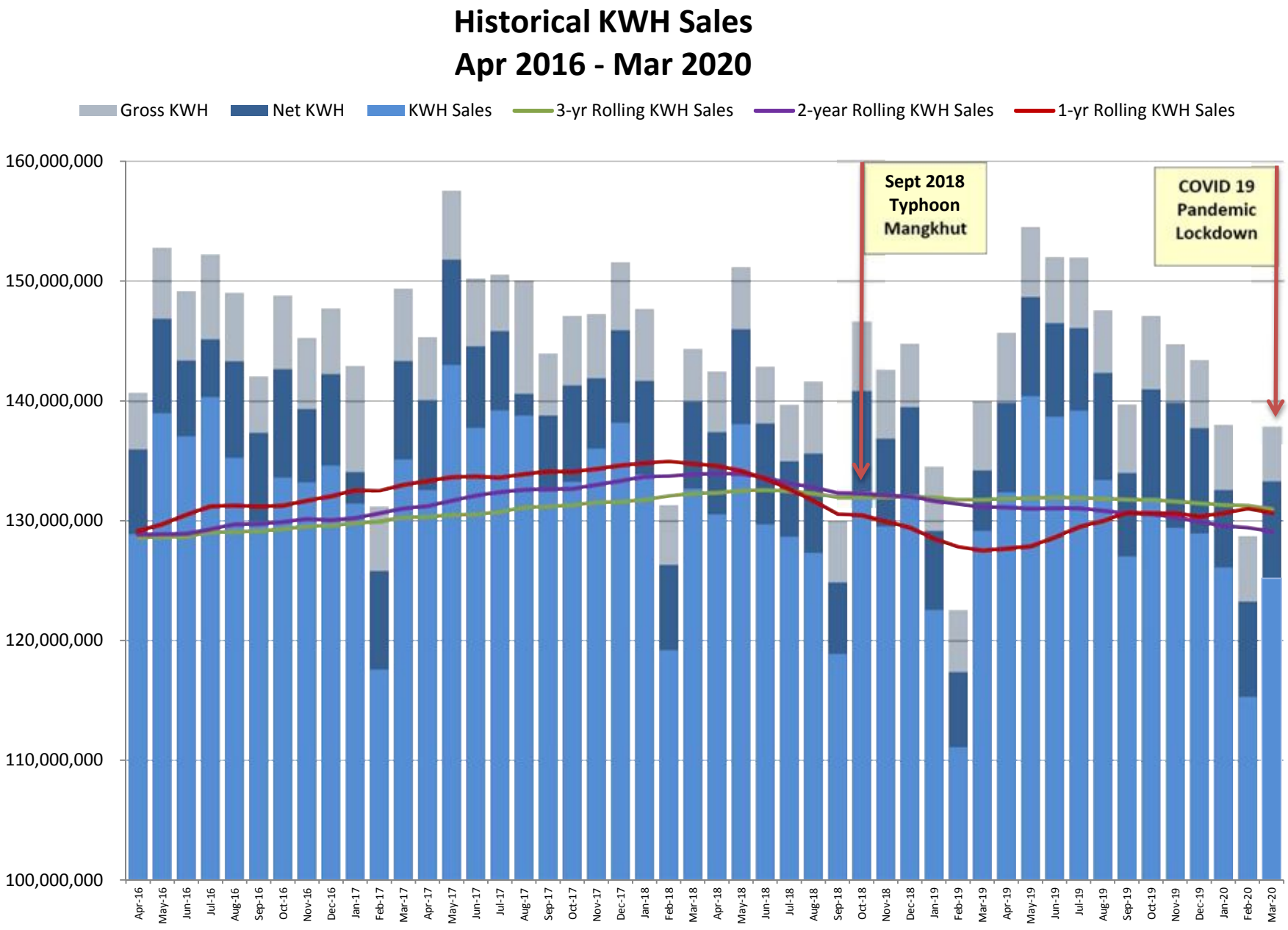
Dec-19
Feb-20


Historical KWH Sales
Apr 2016 - Mar 2020
Gross KWH
Net KWH
KWH Sales
3-yr Rolling KWH Sales
2-year Rolling KWH Sales
1-yr Rolling KWH Sales
160,000,000
150,000,000
140,000,000
130,000,000
120,000,000
110,000,000
100,000,000
Sept 2018 Typhoon Mangkhut
COVID 19 Pandemic Lockdown
Apr-16
May-16
Jun-16
Jul-16
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Nov-16
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May-17
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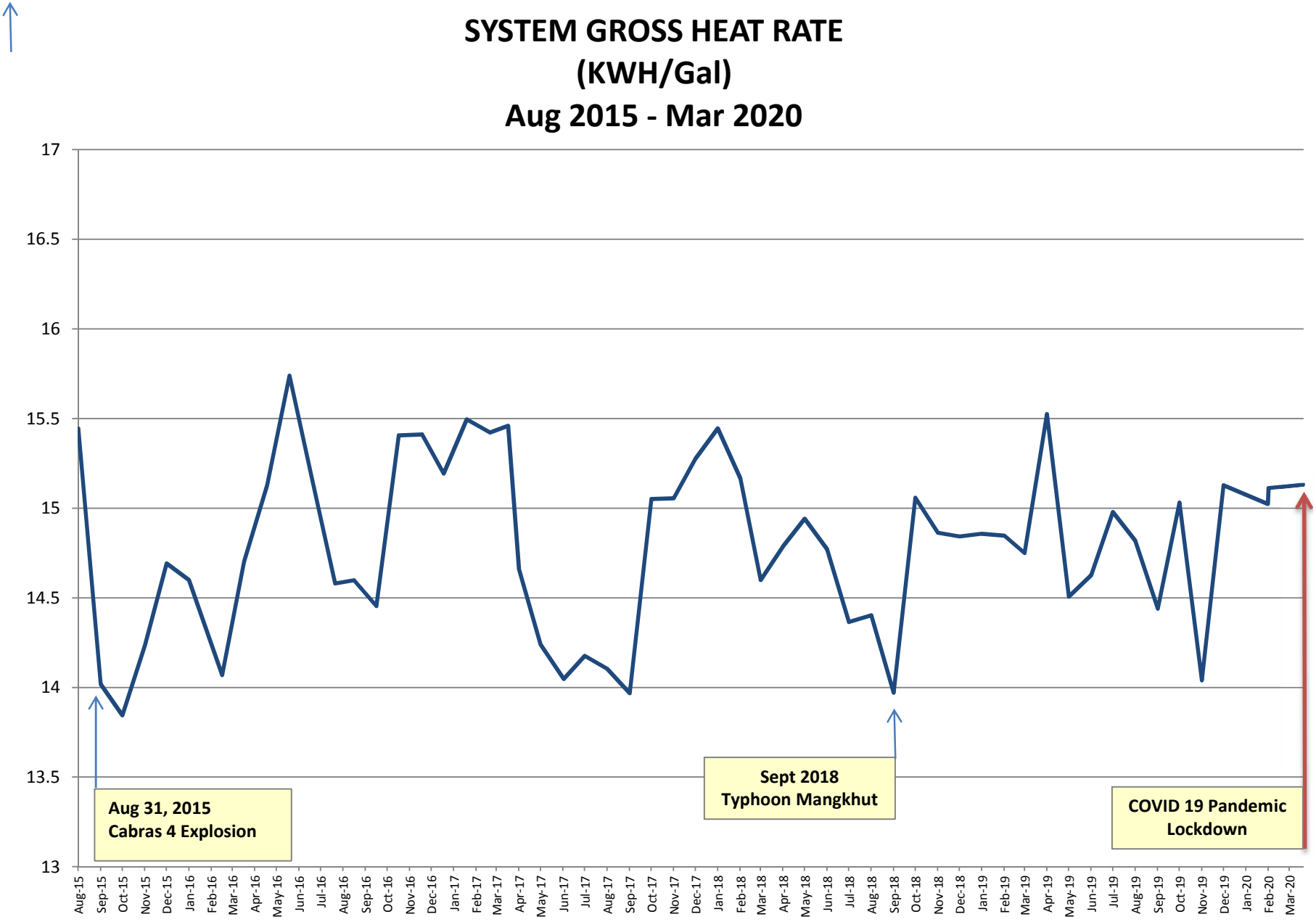
Mar-20


SYSTEM GROSS HEAT RATE
(KWH/Gal)
Aug 2015 - Mar 2020
17
16.5
16
15.5
15
14.5
14
13.5
13
Aug 31, 2015
Cabras 4 Explosion
Sept 2018
Typhoon Mangkhut
COVID 19 Pandemic
Lockdown
Aug-15
Sep-15
Oct-15
Nov-15
Dec-15
Jan-16
Feb-16
Mar-16
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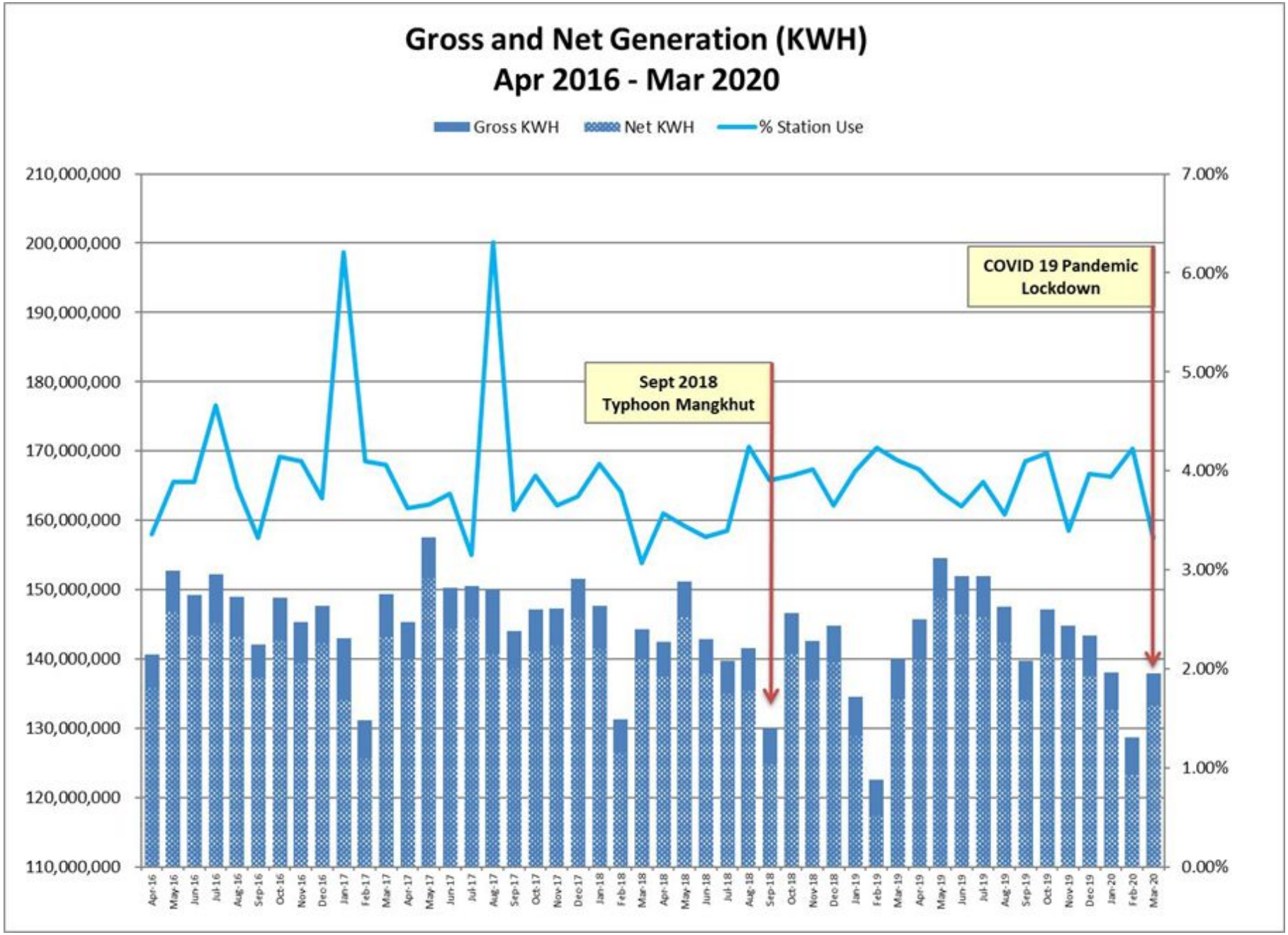
Feb-20
Mar-20


Gross and Net Generation (KWH)
Apr 2016 - Mar 2020
Gross KWH
Net KWH
% Station Use
210,000,000
200,000,000
190,000,000
180,000,000
170,000,000
160,000,000
150,000,000
140,000,000
130,000,000
120,000,000
110,000,000
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
COVID 19 Pandemic Lockdown
Sept 2018 Typhoon Mangkhut
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
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Mar-17
Apr-17
May-17
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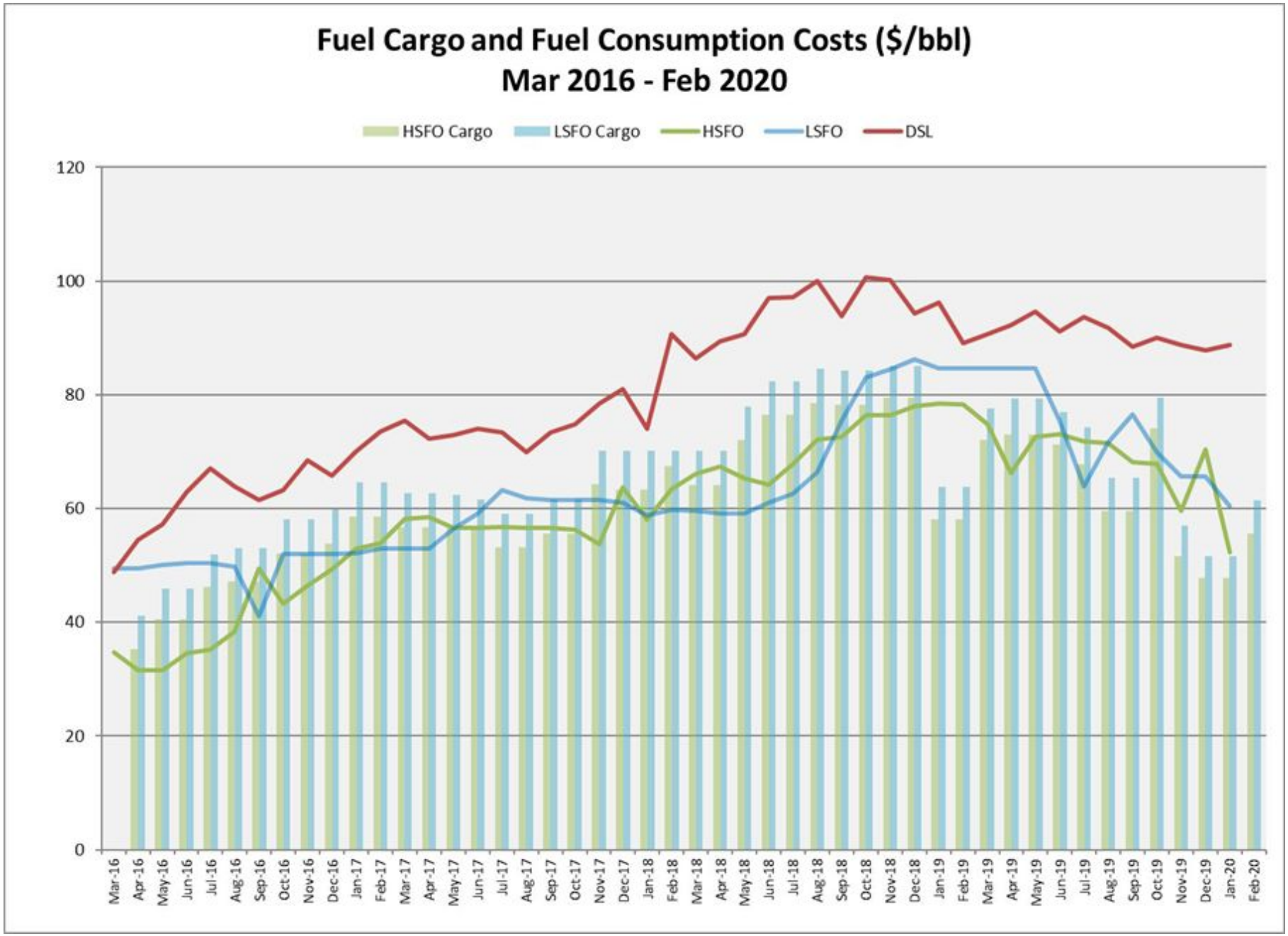
Feb-20
Mar-20


Fuel Cargo and Fuel Consumption Costs ($/bbl)
Mar 2016 - Feb 2020
HSFO Cargo
LSFO Cargo
HSFO
LSFO
DSL
120
100
80
60
40
20
0
Mar-16
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
May-17
Jun-17
Jul-17
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Aug-19
Sep-19
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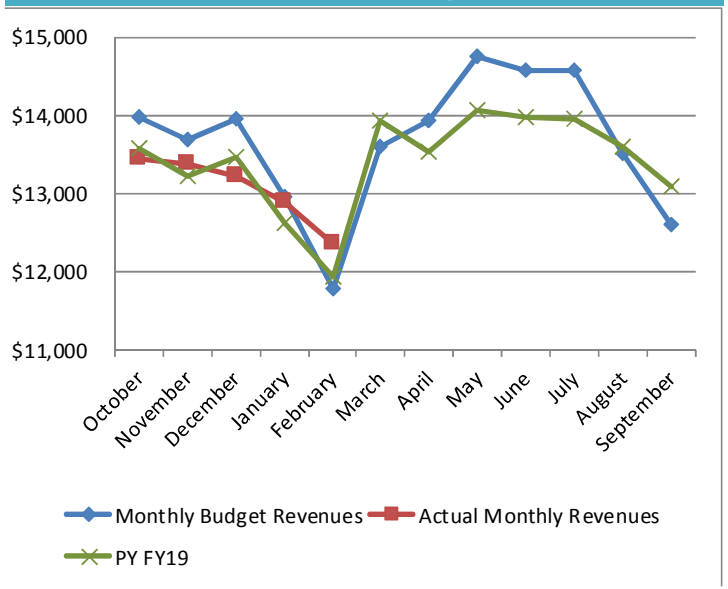
Dec-19
Jan-20
Feb-20

CFO
FINANCIAL HIGHLIGHTS
February 2020

February 2020 Monthly Financial Highlights

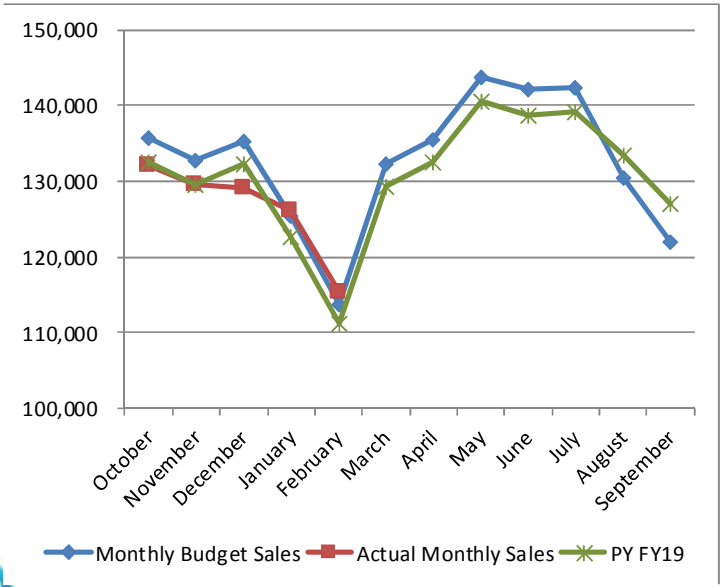
Base Rate Revenue $000



Through February 29 , 2020

$000	Monthly Budget Revenues	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	12,357	$ 585	↑	11,915	$ 442	↑
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		
Total	**$ 163,763**	**$ 65,259**	**$ (1,043)**		**$ 160,865**	**$ 493**	

MWh Sales

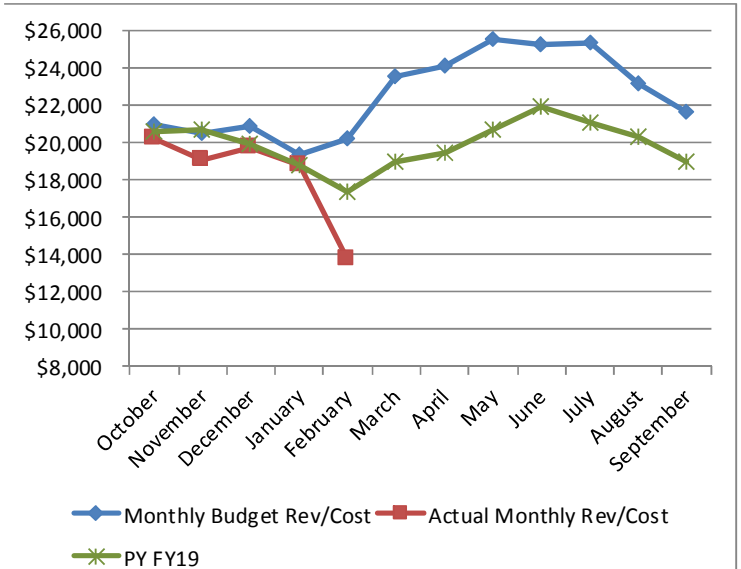


Through February 29 , 2020

mwh	Monthly Budget Sales	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	126,130	674	↑	122,590	3,540	↑
February	113,726	115,346	1,620	↑	111,159	4,187	↑
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		
Total	**1,591,092**	**631,808**	**(11,087)**		**1,568,322**	**3,843**	

February 2020 Monthly Financial Highlights (Continued)

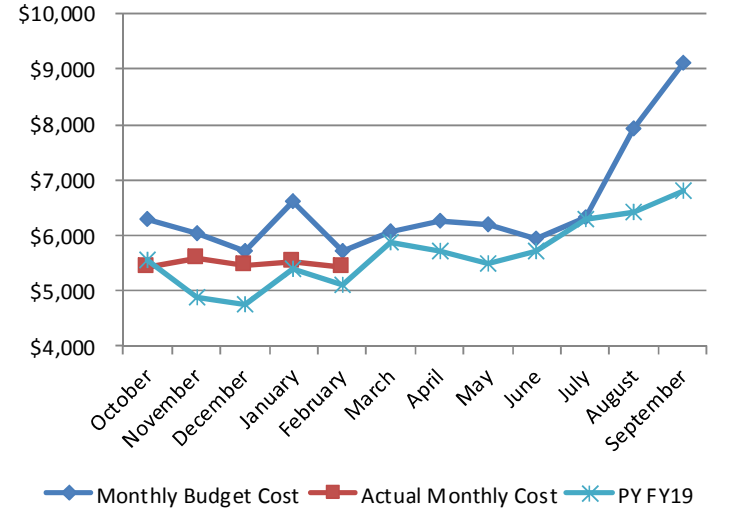
Fuel Revenue/ Cost $000



Through February 29 , 2020

$000	Monthly Budget Rev/Cost	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	13,701	$ (6,518)	↓	17,368	$ (3,667)	↓
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		
Total	**$ 270,418**	**$ 91,471**	**$ (10,368)**		**$ 238,868**	**$ (5,948)**	

O&M Cost $000



Through February 29 , 2020

$000	Monthly Budget Cost	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	5,417	284	↑	5,114	(303)	↓
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		
Total	**$ 78,079**	**$ 27,382**	**$ 2,957**		**$ 67,956**	**$ (1,680)**	

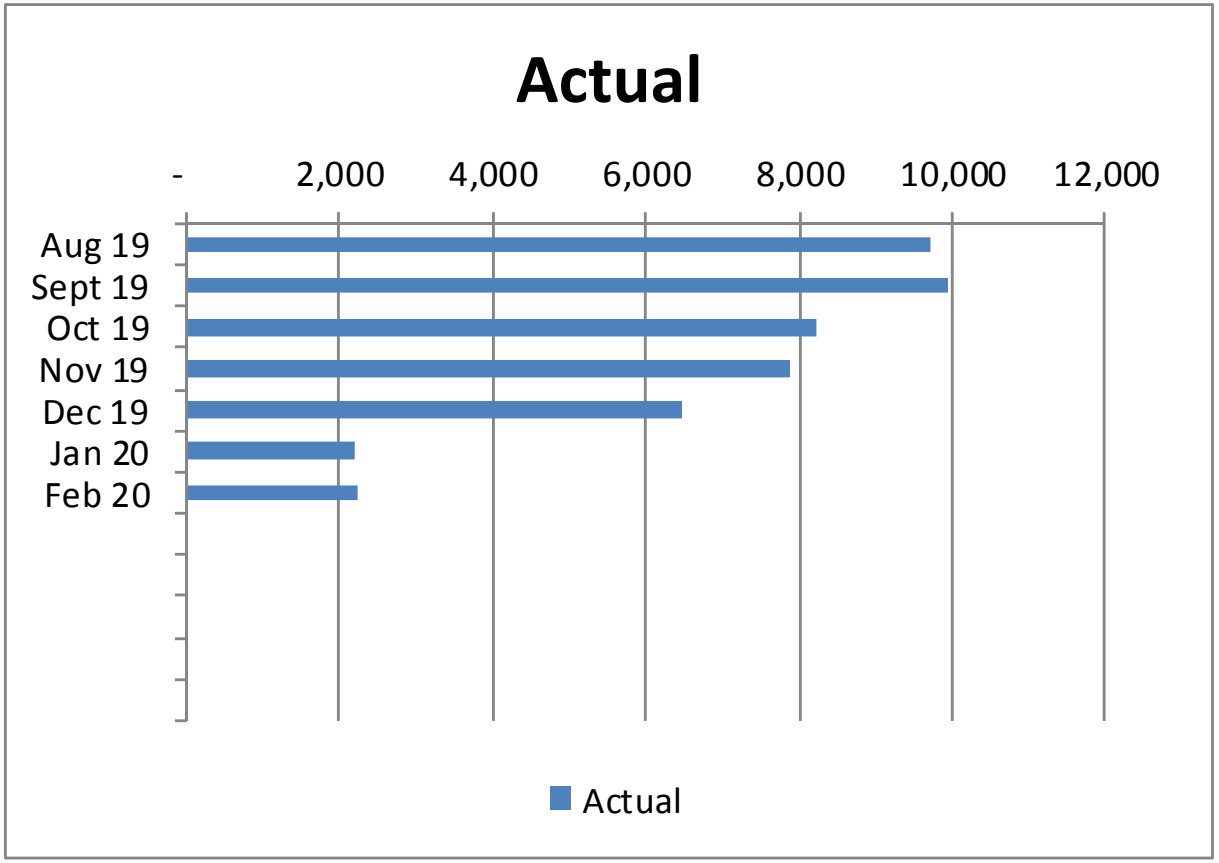
February 2020 Monthly Financial Highlights (Continued)

Through February 29 , 2020							
	4Q2018	1Q2019	2Q2019	3Q2019	4Q2019	1Q2020	2Q2020
Residential	43,887	43,920	44,144	44,329	44,479	44,203	44,748
Commercial	5,261	5,273	5,291	5,303	5,289	5,154	5,387
Governmen	1,077	1,090	1,074	1,075	1,070	1,072	1,072
Streetlights	1,152	1,151	1,152	1,138	1,138	1,135	1,128
Navy	1	1	1	1	1	1	1
Total	51,378	51,435	51,662	51,846	51,977	51,565	52,336

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	1.73
Aggregate debt service coverage	2.62	3.28	2.65	2.53	1.97	1.73
Debt service coverage (DSC) calculation-IPP as O&M						
Senior lien coverage	2.56	2.45	1.79	1.65	1.64	1.54
Aggregate debt service coverage	1.85	2.45	1.79	1.65	1.64	1.54

February 2020 Monthly Financial Highlights (Continued)

LEAC



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
Feb 20	2,243

GUAM POWER AUTHORITY
GOVERNMENT ACCOUNTS RECEIVABLE
As of April 22, 2020

Current (03/20 Billing due 04/30/20)
30 days Arrears (2/29/20 due 03/31/20)
60 days and over Arrears (01/20 billing due 2/29/20)

CC&B ACCT NUMBER	CC&B New Acct Numer	DEPARTMENT	CC&B BALANCE 02/29/2020	CANCEL/REBILL/ SPEC CHARGE Mar2020	BILLING 03/31/2020	PAYMENT UP TO 04/22/2020	CC&B BALANCE 04/22/2020
		Line Agencies					
0237100000	1073430238	Dept. of Corrections	151,645.83	-	75,713.86	(151,645.83)	75,713.86
0437100000	0040515913	Dept. of Parks & Rec.	17,504.27	131.63	14,089.24	(55.18)	31,669.96
0537100000	0453170939	Guam Fire Department	15,129.62	-	15,843.57	(15,129.62)	15,843.57
6995000000	8564647941	DOA Supply Mgmt (NET METERED)	1,775.71	13.32	1,103.59	(1,775.71)	1,116.91
7895000000	4211873236	Dept. of Administration	6,036.15	45.27	3,206.47	(6,036.15)	3,251.74
1337100000	4554808900	Nieves Flores Library	11,351.39	(2,115.22)	9,812.99	(11,351.39)	7,697.77
2206200000	9541109130	General Services Agency	524.57	3.93	250.47	(524.57)	254.40
2237100000	1621790133	DOA-Data Processing	18,249.96	-	8,624.71	(18,249.96)	8,624.71
2337100000	1896187753	Dept. of PH&SS	61,521.68	-	36,247.14	(61,521.68)	36,247.14
3237100000	7252821074	Dept. of Education	3,014,903.85	22,565.83	895,324.91	-	3,932,794.59
3337100000	0266069082	Guam Police Department	46,239.26	346.80	47,474.85	(46,239.26)	47,821.65
3569100000	6069461950	Dept of Youth Affairs (Federal)	514.17	-	360.48	(514.17)	360.48
4437100000	2913461537	Dept. of Youth Affair* (Local)	11,807.37	-	11,566.64	(11,807.37)	11,566.64
4737100000	3404311949	Guam Environmental Protect	6,479.67	48.60	5,907.24	-	12,435.51
5437100000	3227759982	Mental Health/Subst.	39,609.73	297.07	41,720.81	(41,365.58)	40,262.03
	6841080463	Guam Behavioral Health & Wellness	1,755.85	13.17	1,794.65	-	3,563.67
7200300000	0070861777	Veteran Affairs	1,822.01	13.66	1,753.87	-	3,589.54
	6243861917	Guam Veterans Affairs Office	0.00				0.00
7437100000	8300435373	Civil Defense (Military Affairs)	23,621.98	177.16	12,064.98	-	35,864.12
7463300000	7813165805	Pacific Energy Resource Center	1,407.14	5.19	404.89	(714.58)	1,102.64
8137100000	1595188609	Dept. of Agriculture	8,929.23	66.98	8,449.01	-	17,445.22
8337100000	2535590089	DPW-FAC Adm Account	29,115.56	206.62	25,488.99	(1,564.82)	53,246.35
8437100000	7928924534	Guam Visitors Bureau	3,791.00	-	3,590.64	(3,791.00)	3,590.64
8446300000	7663706771	Yona Senior Citizen Center	1,583.73	11.88	914.98	-	2,510.59
9437100000	4129948191	Dept of Chamorro Affairs/Chamorro Village	2,959.39	22.18	2,811.41	-	5,792.98
	3558733700	Dept of Chamorro Affairs/Chamorro Village (NET METERED)	140.85	1.06	140.85	-	282.76
5247210000	5247210000	Mayors Council	32,870.79	196.17	6,073.61	-	39,140.57
6293410000	6293410000	Office of the Governor	46,474.29	348.55	22,818.16	-	69,641.00
8555858369	8555858369	Dept of Chamorro Affairs (Guam Museum)	20,799.72	156.00	19,764.36	-	40,720.08
	1099514147	Dept of Chamorro Affairs/Repository	428.09	3.21	371.71	-	803.01
		Sub Total	**3,578,992.86**	**22,559.06**	**1,273,689.08**	**(372,286.87)**	**4,502,954.13**
		MAYORS					
0637100000	3832327736	Santa Rita Mayor	7,059.81	52.94	3,308.58	-	10,421.33
0737100000	9351070242	Ordot/Chalan Pago Mayor	2,011.97	15.09	956.13	-	2,983.19
1537100000	6393530237	Hagatna Mayor	1,122.71	8.42	491.64	-	1,622.77
1637100000	3293808984	Piti Mayor	2,624.02	19.69	1,161.40	-	3,805.11
1737100000	8715052935	Mongmong/Toto/Maite Mayor	3,021.61	22.66	1,369.49	-	4,413.76
2637100000	0492244686	Asan/Maina/Adelup Mayor	1,387.76	10.42	797.66		2,195.84
2737100000	8433959204	Sinajana Mayor	6,829.60	51.22	3,108.05	-	9,988.87
3637100000	8041715847	Dededo Mayor	12,423.24	93.17	5,336.27	-	17,852.68
4637100000	7037924246	Yigo Mayor	8,192.22	61.45	3,517.72	-	11,771.39
5637100000	7202265287	Umatac Mayor	2,390.75	17.93	1,224.55	-	3,633.23
6537100000	8472200165	Agana Hts. Mayor	9,159.26	68.70	4,219.94	-	13,447.90
6637100000	4469579998	Merizo Mayor	2,262.82	16.98	932.15	-	3,211.95
6737100000	5763167341	Barrigada Mayors Office	5,576.68	41.83	2,252.84	-	7,871.35
7537100000	7247791682	Agat Mayor	5,584.82	43.27	2,381.29	-	8,009.38
7637100000	6078244037	Inarajan Mayor	4,797.09	35.98	2,568.56	-	7,401.63
8537100000	6957205325	Tamuning Mayor	11,629.79	87.24	5,613.28	-	17,330.31
8637100000	1880297633	Talofofo Mayor	3,913.23	29.36	1,938.96	-	5,881.55
9537100000	3631627996	Mangilao Mayor	8,528.08	63.95	3,847.92	-	12,439.95
9637100000	1837525565	Yona Mayor	2,834.88	21.26	1,311.48	-	4,167.62
		Sub Total	**$ 101,350.34**	**$ 761.56**	**$ 46,337.91**	**$ -**	**$ 148,449.81**
		DPW ACCOUNTS					
4337100000	3045433600	DPW-Village St. Lights	686,730.66	5,156.38	317,654.86	-	1,009,541.90
5337100000	0930959866	DPW- Primary St. Lights	249,422.25	1,870.55	70,958.74	-	322,251.54
6337100000	3088040552	DPW-Sec/Coll St. Lights	45,479.67	341.10	19,331.92	-	65,152.69
7337100000	0832698062	DPW-Signal Lights	10,047.50	74.80	9,895.08	-	20,017.38
		Sub Total	**$ 991,680.08**	**$ 7,442.83**	**$ 417,840.60**	**$ -**	**$ 1,416,963.51**
		(B) AUTONOMOUS/PUBLIC CORP					
1437100000	1540692986	Retirement Fund	6,215.42	46.62	6,002.99	(6,215.42)	6,049.61
1915500000	0563872892	Guam Housing Corp Rental Division	856.18	32.87	769.73	(842.02)	816.76
2437100000	5434075703	University of Guam	160,589.45	-	158,521.73	(160,589.45)	158,521.73
4237100000	7736362694	Guam Airport Authority	454,498.04	3,408.76	472,670.54	(930,577.34)	-
5357510000	5357510000	University of Guam (NET METERED)	72,830.11	-	69,905.89	(72,830.12)	69,905.88
6237100000	1699407298	G H U R A	10,756.24	126.87	22,296.02	(1,631.22)	31,547.91
6437100000	6518220019	Guam Community College	46,912.26	-	43,304.89	(46,912.26)	43,304.89
7237100000	8302337726	Guam Memorial Hospital	35,677.40	267.58	35,717.81	(35,677.40)	35,985.39
8426836906	8426836906	Guam Memorial Hospital (NET METERED)	127,121.55	953.41	130,592.58	(127,121.55)	131,545.99
9137100000	4474308144	Port Authority of Guam	84,915.75	636.87	88,857.72	(84,915.75)	89,494.59
9157510000	9157510000	Guam Community College (NET METERED)	33,892.49		30,054.53	(33,892.49)	30,054.53
9173210000	9173210000	Guam Solid Waste Authority	12,403.55		5,432.59	(12,403.55)	5,432.59
9337100000	0838495949	Guam Waterworks Authority	1,250,180.18	-	1,232,679.78	(1,250,180.18)	1,232,679.78
8237100000	4075914809	GPA	-				-
		Sub Total	**$ 2,296,848.62**	**$ 5,472.98**	**$ 2,296,806.80**	**$ (2,763,788.75)**	**$ 1,835,339.65**
		(C) OTHERS					

0337100000	7541928173	Guam Legislature	338.44	2.54	316.24	-	657.22
9503154359	9503154359	Guam Legislature (NET METERED)	7,679.55	57.60	7,212.28	-	14,949.43
1237100000	8353274954	Superior Court of Guam	55,649.96	-	51,124.52	(55,649.96)	51,124.52
2537100000	8108458168	Guam Post Office (Agana)	5,618.39	-	5,522.60	(5,618.39)	5,522.60
2570200000	8972267005	Customs & Quarantine Agency	1,127.31	8.45	608.60	-	1,744.36
3537100000	4530787043	U.S. Post Office	34,737.33	-	35,022.64	(34,737.33)	35,022.64
5537100000	8607446612	Dept. of Military Affairs	67,362.70	505.21	66,545.71	(67,362.70)	67,050.92
3209463043	3209463043	Dept. of Military Affairs (NET METERED)	15,009.50	112.57	15,130.47	(15,009.50)	15,243.04
5737100000	6000770566	KGTF	12,933.35	97.00	6,326.37	-	19,356.72
7281000000	6602566745	Tamuning Post Office	4,704.60		4,775.06	(4,704.60)	4,775.06
		Sub Total	**$ 205,161.13**	**$ 783.37**	**$ 192,584.49**	**$ (183,082.48)**	**$ 215,446.51**
		GRAND TOTAL	**$ 7,174,033.03**	**$ 37,019.80**	**$ 4,227,258.88**	**$ (3,319,158.10)**	**$ 8,119,153.61**

Guam Power Authority

Administrative Divisions

March 2020*

AGMA

- Serves as Authority's primary pandemic coordinator. Directs Authority's response to internal and external requests during the public health emergency. Monitors Authority's overall impact to include employee and resource availability.

Customer Service

- Small operation of CSR's continue to provide customer support via telephone calls, emails, and direct messages from social media. Support urgent customer requests and meter issues.

Human Resources

- Addresses critical employee issues and needs, including Employee Assistance Program and applicability of government-issued emergency personnel orders.

Safety

- Supports overall pandemic response, including implementation and audit of new protective procedures and requirements at GPA sites. Serves as primary agency RAC at Emergency Operations Center. Continues to support mission-critical operations and incident response during pandemic emergency.

Procurement

- Continues to support mission-critical operations during pandemic emergency, including issuance of urgent/critical purchases.

*Note: Normal operations have been disrupted by the Governor's Executive Order 2020-04, dated March 16, 2020, which ordered the closure of non-essential Government of Guam offices effective immediately and through March 30, 2020 due to the COVID-19 pandemic. The closure was extended two (2) additional times: through April 13, 2020 (EO 2020-06), and through May 5, 2020 (EO 2020-09).

GUAM CCU

GUAM WATERWORKS AUTHORITY

Presentation To:

Consolidated Commission on Utilities
GPWA CCU Board Meeting
April 28, 2020

1

GUAM CCU

GUAM WATERWORKS AUTHORITY

Issues for Resolution

Route 4 Relief Sewerline Rehabilitation and Replacement Project

Relative to the Approval of Change Order No. 5 and Approving Additional Contingency Funds for the Route 4 Relief Sewerline Rehabilitation and Replacement Project

GWA Resolution No. 22-FY2020

What is the project's objectives and is it necessary and urgent?

- The objective of the Route 4 Relief Sewerline Rehabilitation and Replacement Project is to install cured in place pipe (CIPP) lining in an existing sewer to rehabilitate the sewer by eliminating infiltration into the existing sewer main so that it can be placed into service and relieve excess flows in the adjacent sewer main serving Sinajana, Ordot, Chalan Pago, and nearby villages connected to the main sewer trunk line coming into Hagatna on Route 4. The CIPP work is being done under a contract with InsituForm Inc and is nearing completion.
- In order to compensate InsituForm for performing unanticipated significant and excessive cleaning and to seal four sewer service lines encountered while performing work under the original scope of work in the contract, two Change Orders are needed to finish the contract work. The additional work is within the general scope of work for the contract and it is most practical and efficient to have InsituForm perform the work as an integral part of their construction. In order to have installed the CIPP liner, the additional cleaning had to be done. In order to re-connect the four unanticipated existing sewer service lines to the newly lined CIPP main to maintain service to those customers, the re-instatement of those lines is necessary and must be done at this time.
- The contract contingency amount previously authorized by the CCU when the contract was awarded has been used on four Change Orders preceding the work discussed herein and consequently, the contingency amount remaining is currently insufficient to execute the two necessary Change Orders to complete the work outlined above. Additional contingency funds must be authorized by the Commission so that GWA can execute the change orders.

Where is the location?

- The segments of existing sewer that required additional cleaning are on Route 4 as it approaches Route 1 and on segments on Route 1 downstream of the intersection with Route 4.
- The four sewer service lines to be reinstated are on Route 1 in front of Chamorro Village and serve Chamorro Village.

(Continued on next page)

Route 4 Relief Sewerline Rehabilitation and Replacement Project *(Continuation)*

Relative to the Approval of Change Order No. 5 and Approving Additional Contingency Funds for the Route 4 Relief Sewerline Rehabilitation and Replacement Project

GWA Resolution No. 22-FY2020

How much will it cost?

- Change Order 5 will cost $165,245.12 and require an additional authorization of $114,058.57 in contingency funds for the contract.
- A Change Order for the service line sealing is estimated to cost $75,000. In total, these amounts sum to $189,058.57.
- This Resolution requests a contingency increase in the amount of $200,000.00 to provide a modest amount in anticipation of a cost proposal from the contractor for the service line reinstatements.

When will it be completed?

- Work on the additional cleaning has already been performed as it was required to advance the project and prepare for the installation of the CIPP liner. The Project Manager required the contractor to support and justify his claim for the amount of cleaning judged to be additional. Once the requisite information and data was provided and the amount negotiated, the Project Manager recommended that GWA approve the addition cleaning and cost.
- The service line reinstatement will be completed soon after the cost is approved and GWA executes a Change Order for this additional work.

What is the funding source?

- The funding source for the contract and for the additional contingency funds requested in this Resolution is the System Development Charge.

The RFP/BID responses (if applicable):

- N/A

COVID-19 Regulatory Asset

Relative to Creation of a COVID-19 Regulatory Asset

GWA Resolution No. 23-FY2020

What is the project's objectives and is it necessary and urgent?

- Setting up a regulatory asset to capitalize extraordinary expenses incurred during the COVID-19 response will allow Guam Waterworks Authority (GWA) to offset these expenses against any future relief provided by the local or federal government and / or amortize the expenses next fiscal year when revenues rebound. The action is necessary to minimize impacts to GWA's ability to meet bond indenture requirements, and is urgent in light of the rapidly changing conditions resulting from the current pandemic.
- In response to the Global Health Emergency declared by the World Health Organization and the national emergency declared by President Donald Trump, on March 14, 2020, Governor Lourdes A. Leon Guerrero, issued Executive Order 2020-03 declaring a state of emergency to respond to Novel Coronavirus (COVID-19). Further, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices and the prohibition of large gatherings.
- Executive Order 2020-05 ordered the closure of businesses or public accommodations except for certain exemptions such as healthcare operations, grocery stores, gas stations and hardware stores during the COVID-19 emergency period through March 30, 2020. Executive order 2020-06 and 2020-09 extended the emergency period through April 13, 2020 and May 5, 2020 respectively.
- Although revenues are likely to be impacted by the near shutdown of the tourism market and the closure of certain government agencies and businesses, Guam Waterworks Authority (GWA) must continue to provide essential water and wastewater services needed for the health and safety of the community. Extraordinary expenses in response to the COVID19 emergency may include but are not limited to:
    - Additional pay for employees required to report to work
    - Equipment and tools to allow employees to work from home
    - Alternate or enhanced methods for customers to pay their bills such as opening a drive thru, lifting credit card
    - Development and distribution of communications materials to employees and customers

(Continued on next page)

COVID-19 Regulatory Asset *(continuation)*

Relative to Creation of a COVID-19 Regulatory Asset

GWA Resolution No. 23-FY2020

What is the project's objectives and is it necessary and urgent?

- Upon approval by the Consolidated Commission on Utilities, GWA will petition the Public Utility Commission (PUC) to capitalize expenses related to the COVID-19 emergency in the form of a regulatory asset and amortize those expenses in FY2021, or over a period determined by the PUC, when revenues are expected to rebound.

Where is the location?

- Not applicable.

How much will it cost?

- This action seeks to capitalize the extraordinary costs expended to address the COVID19 emergency declaration.

When will it be completed?

- Upon approval by the Public Utility Commission (PUC), the Regulatory Asset will be set up and amortized in FY2021 or over a period determined by PUC.

What is the funding source?

- Revenues will be used to fund these expenditures. If cash from Revenues is insufficient, the Working Capital Reserve will be used. As the Regulatory Asset is amortized over the next fiscal year, the Working Capital Reserve will be reimbursed.

The RFP/BID responses (if applicable):

- Not applicable.

Credit Card Limits

Relative to Credit Card Limits

GWA Resolution No. 24-FY2020

What is the project's objectives and is it necessary and urgent?

- Effective April 13, and thru this emergency period, Guam Waterworks Authority (GWA) will make it easier for its non-residential customers to make payments against their billings by lifting credit card limits. This will enable non-residential customers to safely make payments online while minimizing the time and staff needed to process payments made by cash or check and will make funds available more immediately.
- GWA currently has a $500 monthly limit on Visa and Discover credit card payments made for non-residential accounts. This requires non-residential customers to make payments by check or cash or not fully pay their bill on-line. There is currently no limit on Mastercard.

Where is the location?

- Not applicable.

How much will it cost?

- The fees are as follows:

Type	Fee
Credit and Signature Debit Cards (Merchant Fee)	.1033% of amount
PIN Debit Cards (Merchant Fee)	$.06 per transaction
Visa and Discover (Network Fees)	1% - 3%

When will it be completed?

- This action will be effective April 13, 2020 thru the COVID-19 public health emergency period.

What is the funding source?

- If the Public Utilities Commission authorizes the COVID-19 Regulatory Asset, the additional merchant fees will be capitalized and amortized over a period determined by the PUC. The fees will be paid from Revenues, or if Revenues are not sufficient, the Working Capital Reserve.

The RFP/BID responses (if applicable):

- Not applicable.

GUAM CCU

GUAM WATERWORKS AUTHORITY

Issues for Discussion

GUAM WATERWORKS AUTHORITY

GWA COVID-19 Response Update

Consolidated Commission on Utilities Regular Meeting

April 28, 2020

COVID-19: Impact on Operations

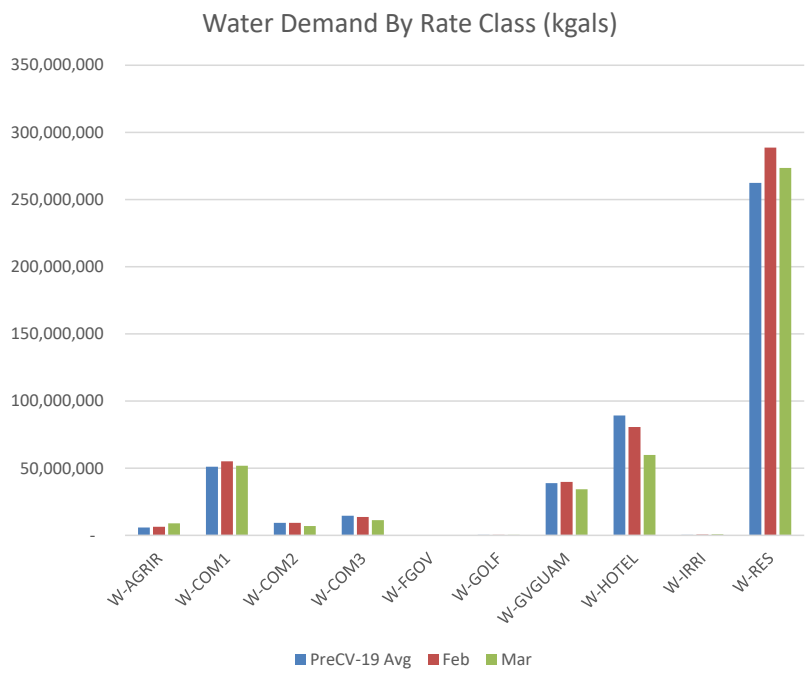
COVID-19 Impact: Continuity of Operations

- Essential operations staff to operate as normal
- Non-essential staff
  - Work from home as required
  - On call as required
- Increased PPE where required
- Reduced staffing contingency plans developed
- Reserve operator contingency plans developed
- Emergency pay for essential workers reporting to work sites through the public emergency period
- External Coordination Efforts
  - Regulatory coordination for continued compliance reporting
  - Supply Chain confirmation for critical supplies
  - GUNG activation coordination for Ops staff
  - GHS-OCD Response Action Coordinator activation
  - One-Guam coordination
- Disconnections have been suspended and some previously disconnected customers have been reconnected
- Transition to on-line business processes for customers
- Increase public messaging for service and payment alternatives (including drive thru payment option)
- Working with vendors to move to ACH

GWA Operations Staff Continue Working 24/7 to Protect Public Health & Safety

COVID-19: Impact on Operations

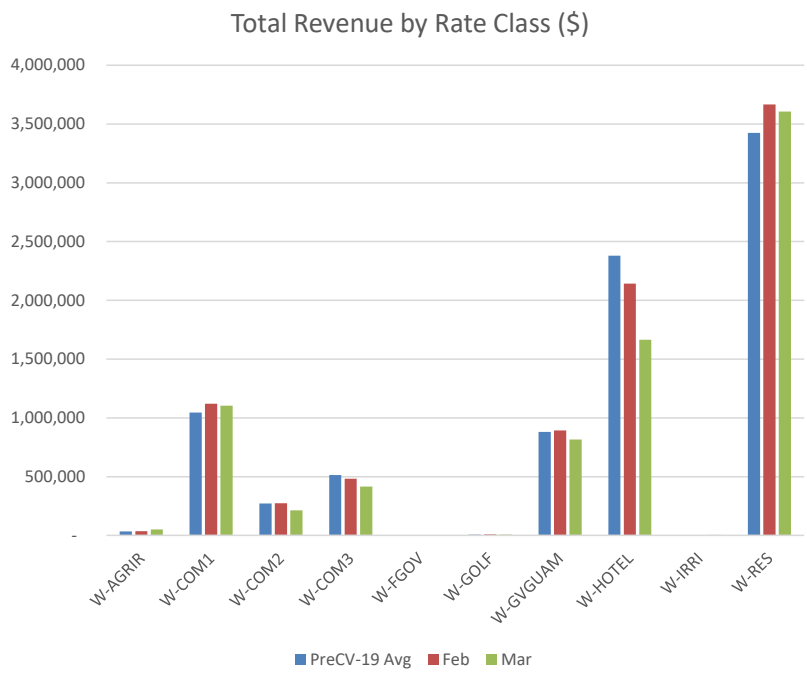
Demand Information FY2020 through March



	Water Demand (kgals)			
	PreCV-19 Avg	Feb	Mar	% Change
Rate Class	(Oct - Jan)	2020	2020	Mar vs Pre CV-19
W-AGRIR	5,987,982	6,388,141	9,028,895	50.78%
W-COM1	51,245,410	55,209,956	51,872,694	1.22%
W-COM2	9,390,447	9,443,480	6,992,913	-25.53%
W-COM3	14,768,991	13,841,979	11,337,879	-23.23%
W-FGOV	110,835	128,795	116,805	5.39%
W-GOLF	514,205	541,869	464,933	-9.58%
W-GVGUAM	38,946,241	39,872,819	34,422,782	-11.61%
W-HOTEL	89,231,464	80,752,939	59,979,496	-32.78%
W-IRRI	507,700	576,568	779,599	53.56%
W-RES	262,470,904	288,693,443	273,550,004	4.22%
TOTAL	**473,174,179**	**495,449,989**	**448,546,000**	-5.20%

COVID-19: Impact on Operations

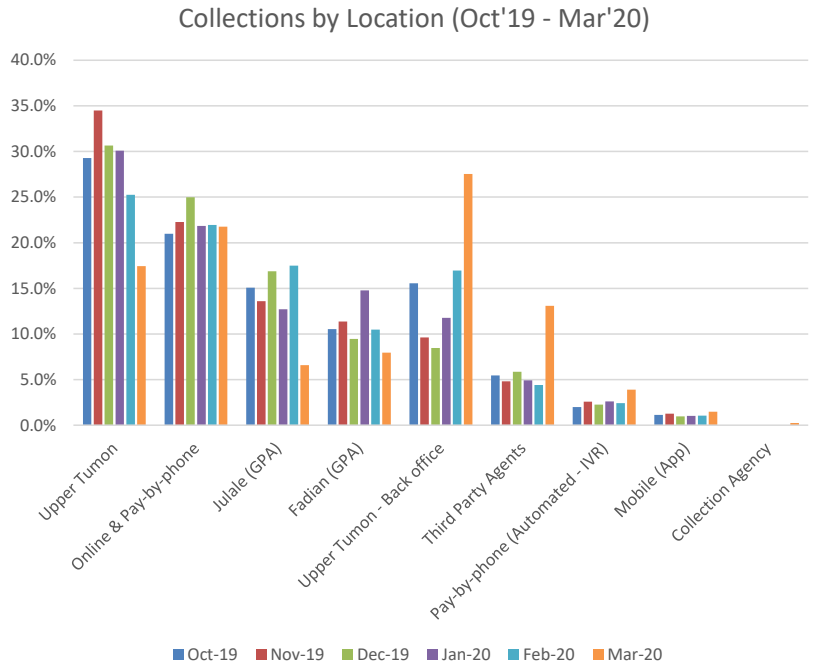
Revenue Information FY2020 through March

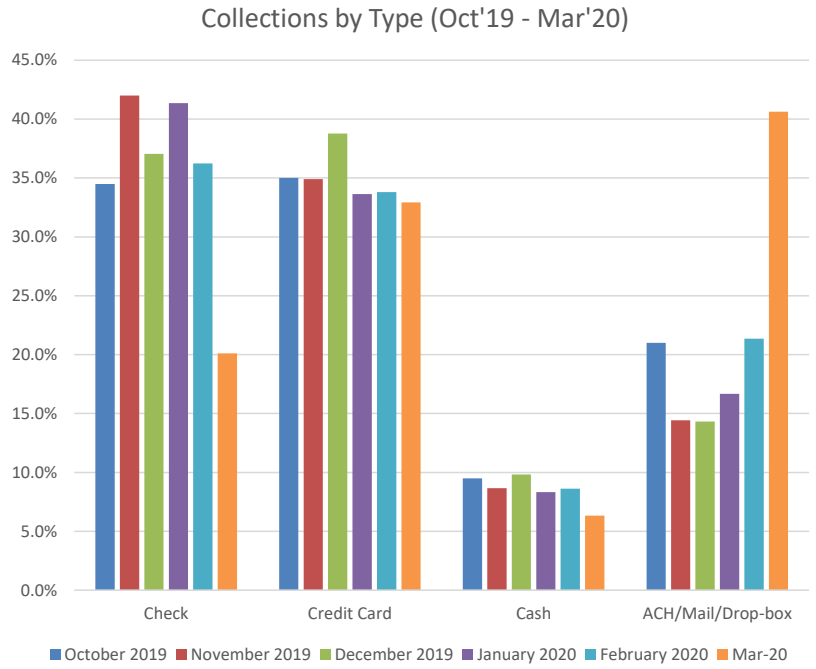


	Total W and WW Revenue ($)				
	PreCV-19 Avg	Feb	Mar	% Change	% Change
Rate Class	(Oct-Jan)	2020	2020	Mar20 vs PreCV-19	Mar20 vs Mar19
W-AGRIR	34,838	36,544	50,543	45.1%	15%
W-COM1	1,046,616	1,120,913	1,103,609	5.4%	6%
W-COM2	271,876	274,059	213,047	-21.6%	-13%
W-COM3	514,130	482,773	416,310	-19.0%	-8%
W-FGOV	2,677	3,079	2,979	11.3%	-20%
W-GOLF	8,115	8,436	7,726	-4.8%	61%
W-GVGUAM	880,866	892,602	816,299	-7.3%	14%
W-HOTEL	2,379,925	2,141,413	1,665,452	-30.0%	-24%
W-IRRI	3,223	3,716	4,876	51.3%	45%
W-RES	3,425,527	3,667,326	3,605,207	5.2%	7%
TOTAL	**8,567,793**	**8,630,862**	**7,886,048**	-8.0%	-2%

COVID-19: Impact on Operations

Collections (% of $ paid) FY2020 through March



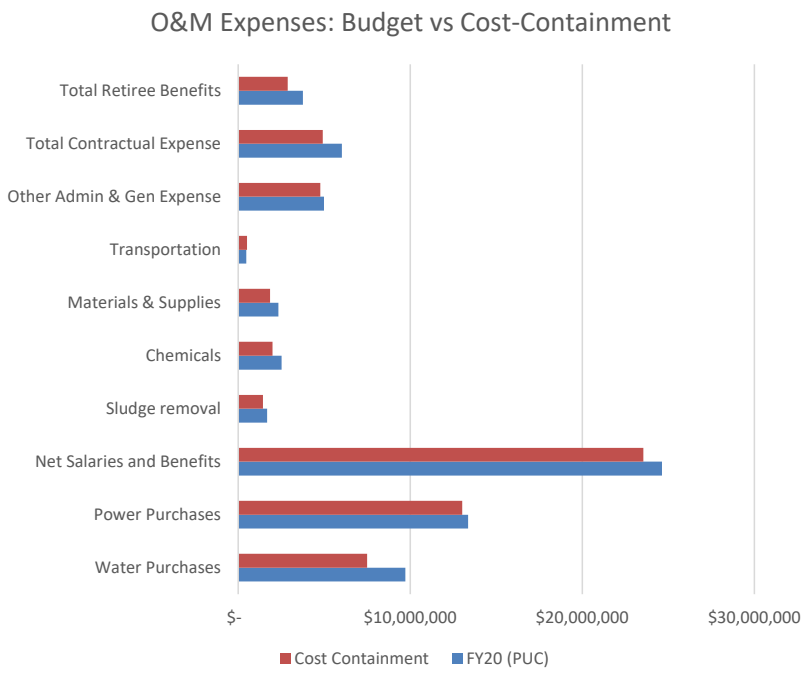


COVID-19: Impact on Operations

Operating Expense and Cost Containment

Initiated Cost Containment Plan based on the following actions to better manage our finances through the balance of this fiscal year

- Personnel expenses:
  - Suspend all hiring EXCEPT for identified critical Operations positions.
  - Suspend any new detailing of positions
  - Suspend all overtime except for emergency situations
  - Suspend Saturday Customer Service hours through September 30, 2020. All other Customer Service centers will resume upon reinstatement of normal operations.
  - Schedule O&M work during the normal workweek only, except where 3-shifts are required (Rovers, SCC, Dispatch)
- Contractual expenses
  - Suspend contracted CCTV work
  - Reduce pump-truck rental
  - Reduce grounds maintenance work by 50%
  - Reduce motor rewinding services
  - Reduce / suspend subscription services
- Operational expenses
  - Maximize the number of wells on standby
  - Reduce and monitor fuel purchases
  - Suspend travel and training except for required certification training
- Other measures to reduce cash outlays
  - Defer IFCIP transfers / expenditures
  - Prioritize outlays that provide a corresponding efficiency or O&M expense reduction



COVID-19: Impact on Operations

Budget Comparison and Projected Performance

	FY20 Budget (PUC Approved)	Cost Containment	Difference
OPERATING REVENUES			
Water Revenues	72,472,430	65,784,498	6,687,932
Wastewater Revenues	41,717,550	38,077,265	3,640,286
Legislative Surcharge	3,602,654	3,225,419	377,235
Other Revenues	431,932	431,932	-
System Development Charge	914,964	914,964	-
Total Operating Revenues	119,139,530	**108,434,077**	10,705,453
OPERATING AND MAINTENANCE EXPENSES			-
Water Purchases	9,723,387	7,500,000	2,223,387
Power Purchases	13,360,489	13,016,695	343,794
Total Utility Costs	23,083,876	**20,516,695**	2,567,181
			-
Salaries and Wages	21,926,153	21,690,090	236,063
Pension and Benefits	6,401,041	6,556,573	(155,532)
Total Salaries and Benefits	28,327,194	**28,246,663**	80,531
Capitalized Labor and Benefits	(3,700,000)	(4,700,000)	1,000,000
Net Salaries and Benefits	24,627,194	**23,546,663**	1,080,531
Administrative and General Expenses			-
Sludge removal	1,689,381	1,437,862	251,520
Chemicals	2,519,149	2,002,196	516,953
Materials & Supplies	2,342,918	**1,853,730**	489,188
Transportation	477,684	509,438	(31,753)
Communications	186,069	163,482	22,587
Claims	66,351	76,063	(9,712)
Insurance	982,136	934,863	47,273
Training & Travel	375,523	126,748	248,775
Advertising	145,312	64,704	80,608
Miscellaneous	1,144,928	1,033,091	111,837
Regulatory Expense	309,358	247,154	62,204
Bad Debts Provision	1,781,672	2,126,090	(344,418)
Total Administrative and General Expense	12,020,482	**10,575,421**	1,445,061
			-
Contractual Expense			-
Audit & Computer Maintenance	1,065,238	991,772	73,466
Building rental	474,142	435,600	38,542
Equipment rental	1,003,554	1,003,554	(0)
Legal	6,452	43,396	(36,944)
Laboratory	405,694	287,379	118,315
Other	3,070,305	2,157,400.8	912,904
Total Contractual Expense	6,025,384	**4,919,102**	1,106,282
Retiree Supp. Annuities and health care costs	3,115,443	2,280,822	834,621
Contribution to Government of Guam	648,035	604,006	44,030
Total Retiree Benefits	3,763,479	**2,884,828**	878,651
Total Operating Expenses	69,520,415	**62,442,709**	7,077,706

FY 2020 Projected Financial Performance	
Operating Revenues	
Water Revenues	$65,784,498
Wastewater Revenues	38,077,265
Legislative Surcharge	3,225,419
Other Revenues	431,932
System Development Charges	914,964
Total Operating Revenues	**$108,434,077**
Operating Expenses - Cash	
Water Purchases	$7,500,000
Power Purchases	$13,016,695
Salaries and Wages	$23,546,663
Contractual	$4,919,102
Retiree and Healthcare	$2,884,828
Administrative and General	$10,575,421
Total Operating Expenses - Cash	**$62,442,709**
Net Operating Revenues	**$45,991,368**
Investment Income-Other funds	$216,573
COLA	644,877
System Development Charge	(914,964)
Current Revenues Available for Debt Service	**$45,937,854**
Indenture Debt Service Coverage Test	
Current Revenues Available for Debt Service	**$45,937,854**
Indenture DSC (1.25X)	**1.34**

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COVID-19: Impact on Operations

Capital Projects Performance

- E.O. 2020-04 (issued 16MAR2020) suspended all non-essential government operations
- E.O. 2020-05 (issued 19MAR2020) clarified essential infrastructure includes utility operations and services supporting those operations
- DPHSS Guidance (issued 19MAR2020) clarified essential infrastructure include public works construction
- GWA issued CIP Memorandum (19MAR2020) to GWA Engineering staff, contractors, engineers and construction managers to ensure continuity of CIP projects
- Initially, a handful of contractors notified GWA of COVID-19 impacts to staffing/schedule
  - ProPacific Builder Corp.: Route 4 Sewerline Rehabilitation project
  - Infratech: Route 1 (Asan – Adelup) Sewerline Rehabilitation project
  - Giant Construction: Talofofo Sewer Improvements project
  - Giant Construction: GWA Line Replacement – Phase IV (permitting stage)
  - Giant Construction: Pale Ferdinand Waterline Replacement (permitting stage)
  - Black Construction: NDWWTP Upgrades
  - AIC: Hyundai Reservoir Project (subcontractor DN Tanks affected by travel restrictions)
- Work was suspended at two sites temporarily; Contractors have resumed operations

GWA's Critical Infrastructure Projects Continue
Black Construction Pouring Oxidation Ditch at NDWWTP

COVID-19: Impact on Operations

Capital Projects Performance

CIPs affected by GovGuam closure

- **Tamuning Hot Spots Sewer Line Rehabilitation and Replacement** - building permit stage
- **Sinifa, Santa Rosa, Santa Rita Reservoirs** - building permit stage
- **Fire Hydrant Replacement Phase 1** - building permit stage
- **Piti Reservoir** - waiting on comments from Department of Agriculture for easement request
- **Yigo & Astumbo Reservoirs** - waiting on contractor license renewals to complete electrical work and remainder of punch list items
- **Northern & Southern Reservoirs** - requires meeting with GFD for Agfayan & Inarajan BPS design

CIPs in pipeline delayed if PHE extends

- **Pressure Zone Realignment Phase 1** – NTP issuance
- **Tank Repair and Bypass Construction** – NTP issuance (Hold up of these 2 permits will impact construction/repair/inspection schedules for the tanks)
- **Water well meter replacement** - NTP issued
- **NWWTP outfall diffuser** – Selection stage
- **Bayside Sewer PS rehabilitation** – Selection stage

COVID-19: Impact on Ratepayers

Provision of Services

- All **water and wastewater services are being provided** as normal
- Transitioned handling of regular service issues to **"on-line" options**
  - Customer Service: new service requests, billing issues, and inquiries
  - Engineering: utility verifications, inspections, permits (new construction service inspections suspended; to be evaluated)
- Payment for GWA services provided
  - Suspension of disconnection through emergency period
  - Payment plans / deferrals for residential customers impacted by CV-19
  - Increased/promote payment options / keeping accounts current
  - Suspend limits on credit card transactions

7-Ways to Pay

1. Mobile App: **PAY GPWA**
2. Pay On-line: **PAYGWA.COM**
3. Pay By Phone: **647-4PAY**
4. Auto Pay: ACH form on website
5. Drop Box: Upper Tumon, Fadian
6. Pay Via Mail: POB 3010, Hagatna
7. Drive-Thru: Upper Tumon

COVID-19: Impact on Ratepayers

Payment Options: Drive-thru at Upper Tumon

COVID-19: Impact on Ratepayers

Payment Options

MORE CONVENIENT CHOICES FOR YOU!

GWA will continue essential utility operations to ensure the safety of Guam's drinking water and maintain needed services to critical public health and safety facilities and for island residents.

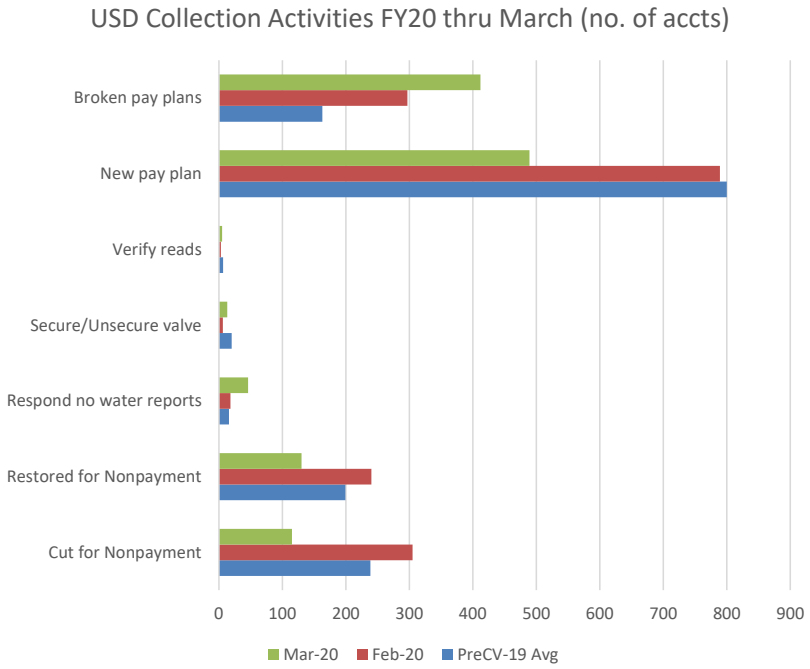
In compliance with the **Governor's 14-day suspension of non-essential GovGuam operations, GPWA Customer Service locations will remain closed until further notice, but don't worry** — you've got options!

Here are several alternatives for customers to make payments for water bills:

- **PAY GPWA APP**
  Available for both Apple and Android users.
- **PAYGWA.COM**
  Pay via credit card, right from our website!
- **PAY BY PHONE**
  Call us at 647-4PAY (4729) anytime. We have a secure automated payment system available 24/7, or speak to a live customer service representative Monday through Friday, 8AM to 5PM.
- **AUTO PAY**
  Set up ACH payments to pay your bill automatically each month, download the form from guamwaterworks.org or call 647-7800 for more details.
- **PAYMENT DROPBOX**
  Drop your check payment at our dropboxes, located at our Upper Tumon location (located behind GTA) at 578 N. Marine Corps Drive and Gloria B. Nelson Public Service Building, 688 Route 15, Fadian, Mangilao.
- **PAY VIA MAIL**
  Mail your check payment to PO Box 3010, Hagatna, GU 96932.

COVID-19: Impact on Ratepayers

USD Collection Activities



	Collection Activities			
	Oct - Jan			% Change
Activity	PreCV-19 Avg	Feb-20	Mar-20	Mar vs PreCV-19
Cut for Nonpayment	239	305	115	-51.8%
Restored for Nonpayment	199	240	130	-34.8%
Respond no water reports	16	18	46	187.5%
Secure/Unsecure valve	20	6	13	-35.8%
Verify reads	7	3	5	-25.9%
New pay plan	800	789	489	-38.9%
Broken pay plans	163	297	412	153.1%

COVID-19: Impact on Ratepayers

Pay Plan Detail

PERIOD	TOTAL BROKEN	TYPE OF PAY PLAN BROKEN		
		ARREARS	BACK BILL	HARDSHIP
03/01/20 THRU 03/16/20	187	174	13	0
03/16/20 THRU 03/21/20	102	96	6	0
03/22/20 THRU 03/28/20	124	121	3	0
03/29/20 THRU 04/04/20	83	67	16	0
04/05/20 THRU 04/11/20	18	17	1	0
04/12/20 THRU 04/18/20	16	14	2	0
04/19/20 THRU 04/25/20	13	10	2	1
TOTAL	543	499	43	1

COVID-19: Impact on Employees

GWA Workforce availability as of April 23, 2020

1	Healthy	352	93.37%
2	Sick, not COVID-19 related	9	2.39%
3	COVID-19 Medical Risk	2	0.53%
4	COVID-19 Quarantined	2	0.53%
5	Military Leave	8	2.12%
6	LTD	4	1.06%
Grand Total		**377**	**100.00%**

Current Availability: 352 of 377 (93%)

GWA Workforce availability as of April 23, 2020

[12]	Healthy/Reporting for duty at worksite	261	69.23%
[13]	Healthy/Reporting for duty - Teleworking	90	23.87%
[14]	Military Leave	8	2.12%
[15]	LTD/Workers Comp	4	1.06%
[04]	Employee sick - symptoms unrelated to COVID-19	9	2.39%
[05]	Employee's direct exposure to a household member - COVID-19 confirmed case	1	0.27%
[06]	Employee's direct exposure to a household member being tested for COVID-19	1	0.27%
[09]	Employee or household member is at medical risk (i.e. COVID-19 vulnerable)	2	0.53%
[11]	Employee wants to electively self-quarantine; status not considered vulnerable - does not report for duty	1	0.27%
Grand Total		**377**	**100.00%**

COVID-19: Impact on Employees

- Essential workers reporting to work sites
  - PPE and sanitation supplies provided
  - Vehicle sanitation between each shift
  - Interaction minimized
  - Social distancing practiced to the extent possible
  - Daily safety messaging and updates
- Non-essential workers teleworking from home
  - VPN access expanded
  - GWA equipment deployed
  - Telework Policy and Procedures issued
  - Telework Work Plan & Agreements being finalized

COVID-19: Impact on Employees

- Daily employee updates
  - Email
  - Group Messaging
- Content:
  - Information on testing
  - CDC guidance
  - GWA policy developments
  - Safety reminders

Employee update for April 17, 2020

Good morning everyone,

Latest updates

- No new cases of Coronavirus (COVID-19) confirmed on Guam for the second day in a row as of 6:00am this morning!

Summary of Confirmed Cases of COVID-19

		Tested by GPHL	Tested by DLS	Tested by NHRC	Clinically Diagnosed	Total
[A]	Confirmed Cases of COVID-19	116	5	11	3	135
[B]	Recoveries					86
[C]	Deaths					5
	Active Cases of COVID-19 ¹					44

¹ Active Cases of COVID-19 = [A] - [B] - [C]; remain in isolation

GPHL = Guam Public Health Lab DLS = Diagnostic Laboratory Services NHRC = Naval Health Research Cent

***********All employees are urged to stay home when not at work. ***********

Face masks are required in all essential businesses and government agencies

Executive Order 2020-09 mandates that essential businesses and government agencies shall **require all employees** and patrons **wear face masks** while **on** the **premises**. This includes all GPWA buildings.

How to Wear a Cloth Face Covering

Cloth face coverings should—

- fit snugly but comfortably against the side of the face
- be secured with ties or ear loops
- include multiple layers of fabric
- allow for breathing without restriction
- be able to be laundered and machine dried without damage or change to shape

Employee update for April 22, 2020

Good morning everyone,

Latest updates

- No new cases of Coronavirus (COVID-19) confirmed for the fourth day in a row as of 6am this morning!
- Between March 12 and April 21, a total of 1,155 tests have been conducted by DPHSS, DLS and GMH with 1,033 negative results.

Summary of Confirmed Cases of COVID-19

		Tested by GPHL	Tested by DLS	Tested by NHRC	Tested by GMH	Clinically Diagnosed	Total
[A]	Confirmed Cases of COVID-19	117	5	11	0	3	136
[B]	Recoveries						114
[C]	Deaths						5
	Active Cases of COVID-19 ¹						17

¹ Active Cases of COVID-19 = [A] - [B] - [C]; remain in isolation

GPHL = Guam Public Health Lab DLS = Diagnostic Laboratory Services NHRC = Naval Health Research Center
GMH = Guam Memorial Hospital

***********All employees are urged to stay home when not at work. ***********

REFRESH Center for Disease Control COVID-19 Guidance

There has been one confirmed positive COVID-19 case in the last eight days. The trend is very encouraging but please do make the mistake to let your guard down. All social isolation mandates are still in effect. Recommended precautions and guidance to protect yourself and reduce the transmission of COVID-19 are especially important to maintain good health and stamp out the virus.

How COVID-19 is transmitted

Most often, COVID-19 spreads by close contact *(i.e., within about 6 feet)* via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza and other respiratory pathogens spread.

It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.

How to Protect Yourself and Others

Update on GWA Series 2020 Bonds Process

- All needed approvals obtained with PUC action on March 26th
- Document development
  - Consulting Engineers Report: Near Final Draft in review (complete April 30th)
  - Preliminary Official Statement: Updated Draft in development (post May 19th)
  - Call to discuss CER and POS scheduled for Thursday this week
- Ratings Activity
  - COVID-19 and PUC Approved Rate Plan presented April 16th
  - Ratings presentation scheduled May 8th
- Marketing and Pricing
  - Timing and final scheduling are market dependent
  - GWA, GEDA and team are monitoring market developments
  - EMMA Notice of Proposed Issuance posted March 24th – no feedback yet
  - Soonest to be in the market is mid-May

EMMA Notice filed by GEDA on April 24th

- Notice drafted by Citi and finalized with input from Orrick (Bond Counsel), GEDA
- Allows discussions between Citi and Barclays with investors:
  - to gauge reception
  - Obtain additional market color

VOLUNTARY NOTICE OF PROPOSED ISSUANCE AND REFUNDING OF BONDS

As the central financial manager and consultant for the agencies or instrumentalities of the Government of Guam, the Guam Economic Development Authority ("GEDA") on behalf of the Guam Waterworks Authority ("GWA") announced that GWA is considering the issuance of one or more series of Water and Wastewater System Revenue Bonds (the "2020 Bonds") for the purpose of financing certain capital improvement projects and refunding all or a portion of the remaining outstanding Guam Waterworks Authority Water and Wastewater System Revenue Bonds, Series 2013 (the "2013 Bonds"). The sale of the 2020 Bonds, if any, is expected to occur in the second quarter of 2020; however, the occurrence, size and timing of the proposed transaction remains subject to market conditions and other factors. Citigroup Global Markets Inc. will serve as bookrunning senior manager with Barclays Capital Inc. serving as co-senior manager. GEDA and GWA reserve the right to change or modify their plans as they deem appropriate and are under no obligation to pursue any such issuance or refunding, and the proposed transactions may be modified, delayed or suspended at the option of GEDA and GWA. There is no guarantee that any transactions will be consummated.

Any questions regarding the proposed transaction should be directed to:

Christina Garcia
Manager, Public Finance Division
Guam Economic Development Authority
cgarcia@investguam.com
671-647-4332

Citigroup Global Markets Inc. | Municipal Securities Division

Market Update

April 28, 2020

GUAM WATERWORKS AUTHORITY

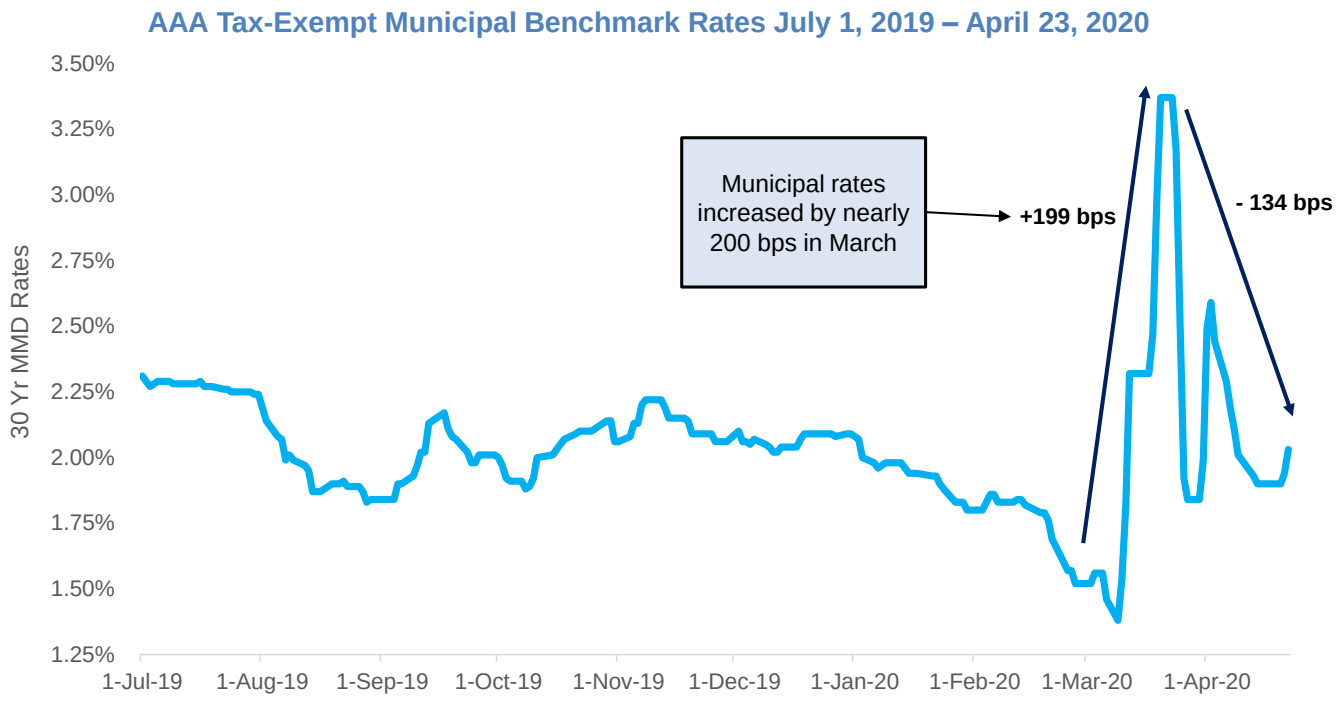
GUAM ECONOMIC DEVELOPMENT AUTHORITY
Moving Forward

Citigroup is providing the information contained in this document for discussion purposes only in anticipation of serving as underwriter to the Guam Waterworks Authority ("GWA"). The primary role of Citigroup, as an underwriter, is to purchase securities, for resale to investors, in an arm's-length commercial transaction between GWA and Citigroup. Citigroup has financial and other interests that differ from those of GWA. Citigroup is not acting as a municipal advisor, financial advisor or fiduciary to GWA or any other person or entity. The information provided is not intended to be and should not be construed as "advice" within the meaning of Section 15B of the Securities Exchange Act of 1934. GWA should consult with its own financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent it deems appropriate. GWA should consider whether to engage an advisor to act in a fiduciary capacity on its behalf in connection with this transaction.

citi®

30 Year AAA Benchmark Tax-Exempt Rates since July 2019

Municipal rates saw historic volatility in March as investors reacted to COVID-19, however, while increased volatility remains in the market, rates have begun to stabilize



Source: Thomson Reuter's TM3

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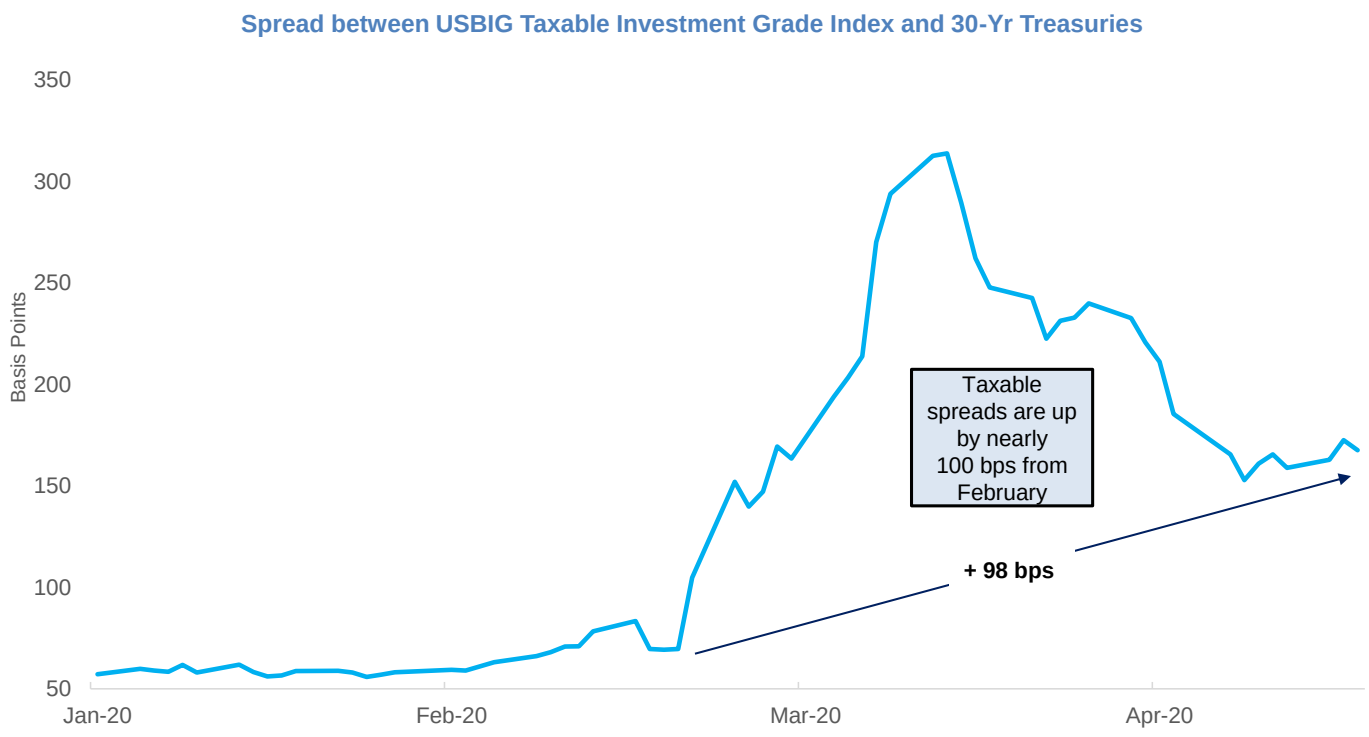
Credit Spreads Have Widened Since February

Since February, credit spreads in all fixed income credits have increased significantly as markets react to the potential economic impact from COVID-19

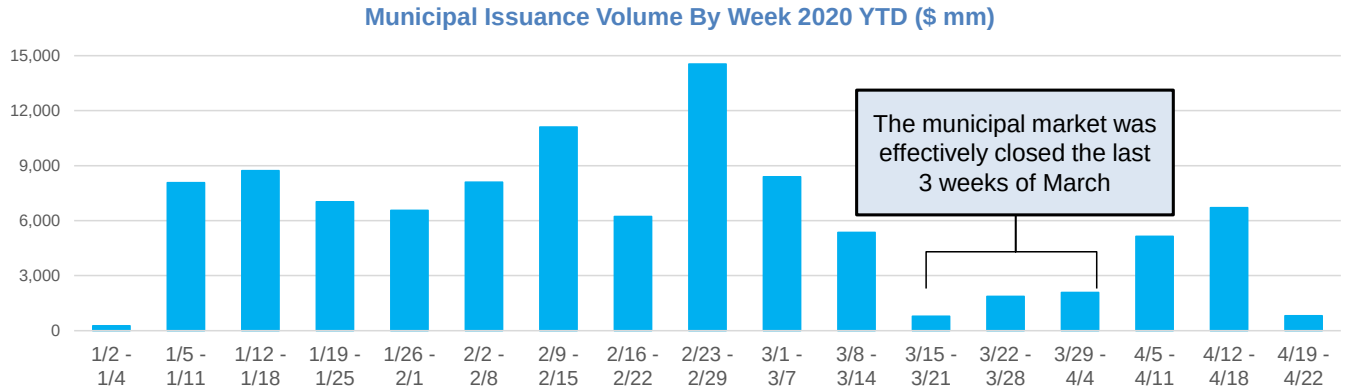


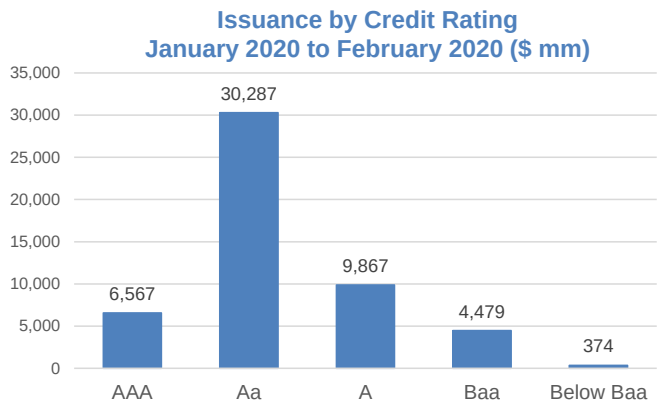
Source: Thomson Reuter's TM3

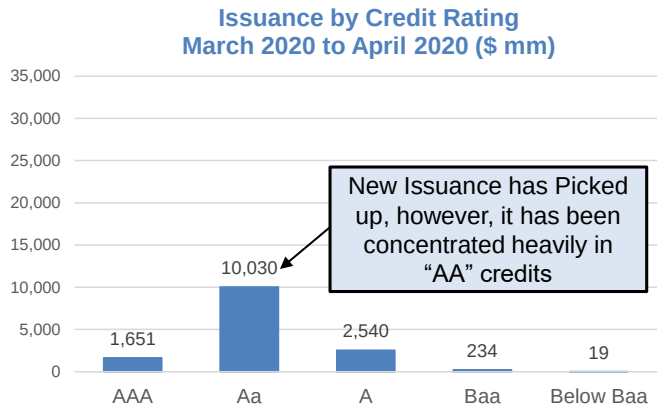
2

New Issue Supply Has Picked Up After Several Weeks of Limited New Issuance

New issue supply dropped starting the week of March 9th as the market reacted to COVID-19, however, supply has picked up in recent weeks largely concentrated in "AA" and higher credits







Source: SDC Platinum and Citi research.

3

Guam Secondary Market Trading Since March 2020 (Trades >$1 million)

Summary of GWA Secondary Market Trades Since March 25, 2020

Average Spread to MMD	Max Spread to MMD	Min Spread to MMD	Last Spread to MMD	Volume
316 bps	342 bps	273 bps	273 bps	$24,450,000

Trade Date	Maturity	Par Traded ($)	Yield (%)	Spread (bps)
Guam Waterworks Authority				
3/30/2020	2035	1,000,000	4.61	318
3/31/2020	2025	2,250,000	4.32	323
3/31/2020	2025	2,250,000	4.35	326
3/31/2020	2028	1,300,000	4.43	327
3/31/2020	2028	1,300,000	4.39	323
3/31/2020	2035	1,000,000	4.55	312
3/31/2020	2043	3,840,000	5.08	334
3/31/2020	2043	3,840,000	5.16	342
3/31/2020	2046	1,835,000	5.00	320
3/31/2020	2046	1,835,000	4.95	315
4/2/2020	2043	2,000,000	5.20	281
4/2/2020	2043	2,000,000	5.12	273
Business Privilege Tax				
3/25/2020	2031	2,500,000	5.34	270
3/25/2020	2031	2,500,000	5.33	269
3/26/2020	2042	1,000,000	5.20	281
3/31/2020	2030	7,000,000	4.90	366
3/31/2020	2030	7,000,000	4.93	369
3/31/2020	2042	3,095,000	5.20	349
4/1/2020	2042	2,095,000	5.17	331
4/1/2020	2042	1,000,000	5.17	331
4/6/2020	2026	1,430,000	4.51	324
4/6/2020	2026	1,430,000	4.52	325
4/6/2020	2026	4,440,000	4.52	325
4/6/2020	2026	4,400,000	4.51	324
Guam GO				
3/25/2020	2031	2,140,000	5.65	301
3/30/2020	2031	2,140,000	5.00	369
4/3/2020	2031	2,285,000	5.59	371
4/3/2020	2031	2,285,000	5.75	387

Trade Date	Maturity	Par Traded ($)	Yield (%)	Spread (bps)
Section 30				
4/8/2020	2032	2,275,000	4.92	334
4/8/2020	2032	2,275,000	4.90	332
4/8/2020	2033	2,015,000	4.95	327
4/8/2020	2033	2,015,000	4.97	329
4/8/2020	2034	2,260,000	5.00	327
4/8/2020	2034	2,260,000	5.01	328
4/8/2020	2036	2,000,000	5.11	328
4/8/2020	2036	2,000,000	5.10	327
4/13/2020	2031	1,000,000	4.65	335
4/13/2020	2031	1,000,000	4.60	330
Guam Power Authority				
3/25/2020	2030	1,535,000	5.00	241
3/25/2020	2030	1,535,000	4.50	191
3/25/2020	2034	1,825,000	5.77	303
3/25/2020	2034	1,825,000	5.67	293
3/25/2020	2040	1,000,000	5.93	295
3/25/2020	2040	1,000,000	5.83	285
3/26/2020	2028	2,580,000	4.50	266
3/30/2020	2025	1,000,000	4.14	305
3/30/2020	2025	1,000,000	4.20	311
3/31/2020	2036	1,300,000	4.61	313
3/31/2020	2036	1,300,000	4.63	315
3/31/2020	2037	1,200,000	4.66	313
3/31/2020	2037	1,200,000	4.68	315
4/1/2020	2033	1,055,000	5.01	353
4/1/2020	2033	1,055,000	4.98	350
4/1/2020	2034	1,445,000	5.01	348
4/1/2020	2034	1,445,000	4.98	345
4/2/2020	2034	4,080,000	5.01	298
4/2/2020	2034	1,000,000	5.01	298
4/2/2020	2034	5,080,000	4.95	292

Source: EMMA & Citi Research. Yield shown represents yield to call date.

4

GWA New Money Financings - All-in TIC

Although 30 year MMD is higher by 50 bps and credit spreads have widened since February 2020, GWA's estimated all-in TIC on the 2020 financing compares favorably to prior new money financings

Comparison of All-in TICs on GWA's New Money Financings & *Estimated* All-in TIC on 2020 Sale

Series	Ratings (M /S / F)	Par	Average Life (Years)	All-in TIC[3.]
2016	Baa2 / A- / BBB-	$143,310,000	25.2 years	4.26%
2013	Ba1 / A- / BB	172,630,000	22.7 years	5.64%
2010	Ba2 / / BB	118,825,000	22.7 years	5.92%
Indicative rates as of April 24, 2020	Baa2 / A- /	134,000,000	28.6 years	4.75%[1,2]
Indicative rates as of February 2020	Baa2 / A- /	134,000,000	28.6 years	4.31%[1.]

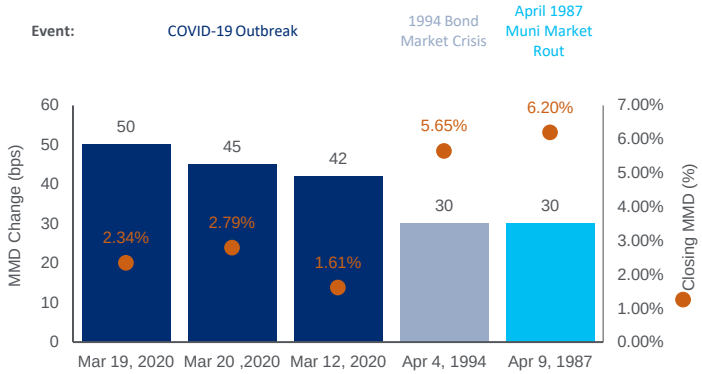
GWA's 2020 financing has a longer average life due to wrapping the 2020 bonds around GWA's existing debt

1. TIC on tax-exempt new money portion, does not incorporate a taxable advance refunding component.
2. Indicative rates based on estimated market conditions as of April 24, 2020. Actual results will vary and can be impacted by a variety of factors including ratings, market conditions and credit spreads among others. Estimated rates are subject to change up until final pricing.
3. Inclusive of all issuance expenses. Indicative rates assume 2% cost of issuance

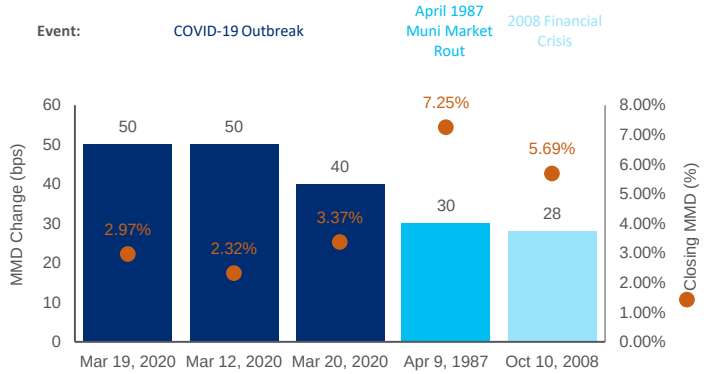
Largest Municipal Sell-Offs in History: 1-Day and 3-Day

The recent COVID-19 outbreak caused some of the largest short-term moves in MMD's history; with other similar moves occurring during periods of financial market stress

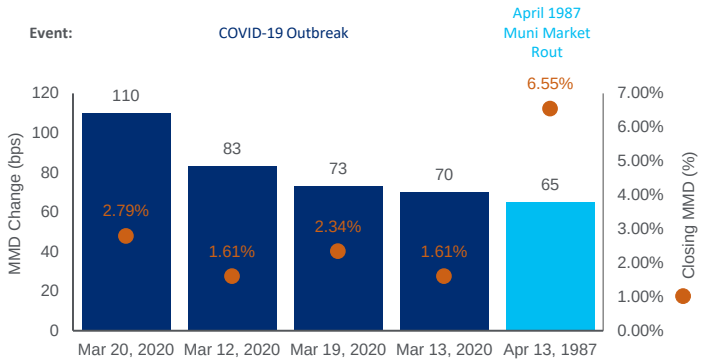
Top 5 Largest 1-Day Sell-Off in 10-Year MMD



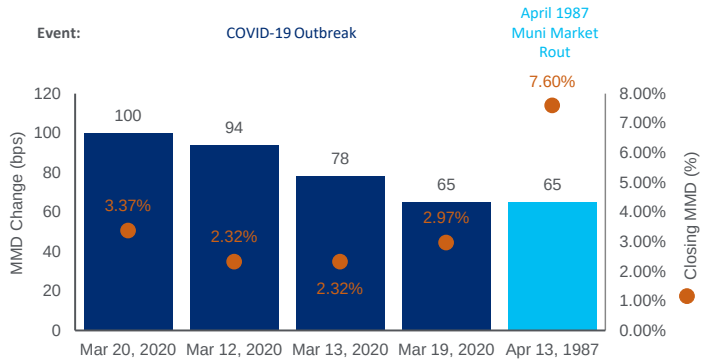
Top 5 Largest 1-Day Sell-Off in 30-Year MMD



Top 5 Largest 3-Day Sell-Off in 10-Year MMD



Top 5 Largest 3-Day Sell-Off in 30-Year MMD



Source: Thomson Reuters TM3

7

Appendix – Top Reported Guam Investors

Top 20 Reported Guam Investors – As of April 2020 (in $millions)

As of April 2020, Guam's top 20 reported holders own over $1.7 billion in Guam's municipal bonds

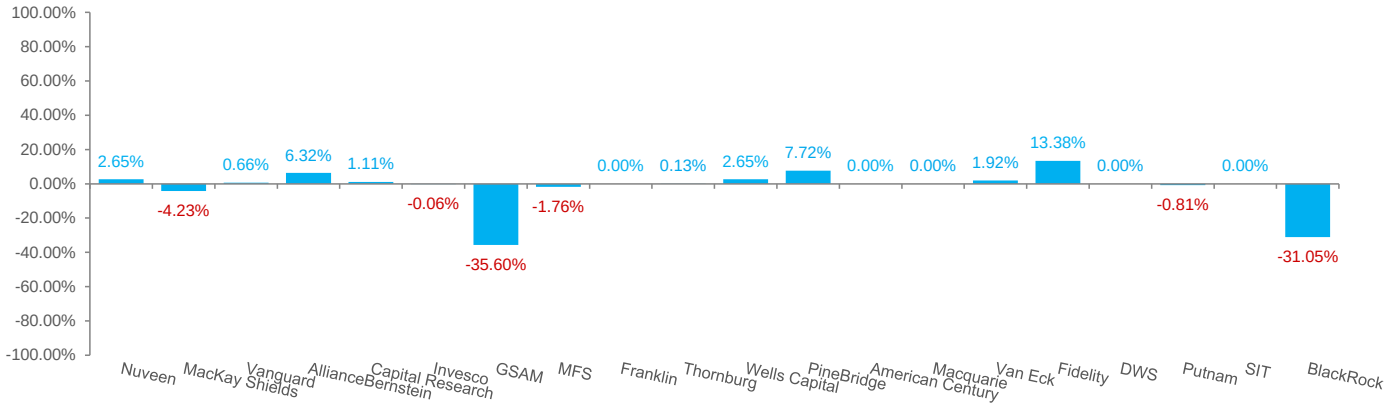
	GWA	BPT	HOT	GPA	GIAA	Section 30	GDOE	GovGuam GO	PAG	Total Guam Holdings ($000s)
Nuveen	89.64	195.23	6.57	42.03	12.41	39.26	19.61	3.43	2.06	410.23
MacKay Shields	82.02	80.74	20.62	18.59	21.43	10.17	-	-	11.33	244.89
Vanguard	56.13	84.30	-	61.62	13.07	4.39	-	-	-	219.50
AllianceBernstein	12.25	65.50	-	23.52	0.88	22.94	1.97	6.34	-	133.39
Capital Research	18.09	35.54	11.51	21.59	15.64	5.53	-	-	5.82	113.72
Invesco	5.97	15.94	-	48.07	13.00	6.25	-	2.70	5.50	97.42
GSAM	37.50	9.76	-	4.87	18.54	12.03	5.86	2.70	5.70	96.93
USAA / Victory Capital	44.16	5.00	-	26.61	2.26	12.25	-	-	1.50	91.77
MFS	15.29	11.03	-	7.31	1.91	3.92	35.03	-	0.80	75.29
Franklin	16.26	-	10.38	25.99	5.00	-	-	-	-	57.62
Thornburg Investment	10.43	11.48	-	24.54	-	-	-	-	-	46.44
Wells Capital	13.89	5.04	-	1.00	6.12	0.60	5.24	-	7.26	39.15
PineBridge	-	16.61	-	1.46	-	6.90	-	-	0.50	25.47
American Century	9.34	1.00	-	8.37	-	-	2.50	-	1.50	22.71
Macquarie	5.84	8.78	-	1.00	-	-	-	-	2.13	17.74
Van Eck	5.41	6.69	-	0.85	0.20	1.62	1.10	-	-	15.86
Fidelity	-	-	-	6.68	8.79	-	-	-	-	15.47
DWS Investment	2.50	-	-	6.21	3.00	-	-	-	2.00	13.71
Putnam Investment	-	-	0.25	3.00	-	-	1.00	4.90	3.77	12.91
SIT Investment	2.00	2.75	-	0.50	-	0.50	2.73	-	-	8.48
Total	**426.70**	**555.37**	**49.33**	**333.76**	**122.23**	**126.35**	**75.03**	**20.05**	**49.86**	**1,758.66**

Source: Ipreo as of April 1, 2020. Reporting requirements vary by firm. Does not include Tobacco or Housing holdings.

Change in Reported Investor Holdings (November 2019 – April 2020)

Total overall holdings in Guam credits have increased overall since November 2019

Percentage Change in Investor Holdings (Nov. 2019 – April 2020)



Firm	Total Par Held Nov. 2019	Total Par Held April 2020	Net Change in Position	%
Nuveen	$413,880	$424,850	$10,970	2.7%
MacKay Shields	256,780	245,910	-10,870	-4.2%
Vanguard	218,065	219,500	1,435	0.7%
AllianceBernstein	125,455	133,385	7,930	6.3%
Capital Research	112,470	113,715	1245	1.1%
Invesco	98,525	98,470	-55	-0.1%
GSAM	150,520	96,930	-53,590	-35.6%
MFS	76,630	75,285	-1,345	-1.8%
Franklin	57,620	57,620	0	0.0%
Thornburg	46,380	46,440	60	0.1%

Source: Ipreo as of April 1, 2020. Reporting requirements vary by firm.

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GUAM WATERWORKS AUTHORITY

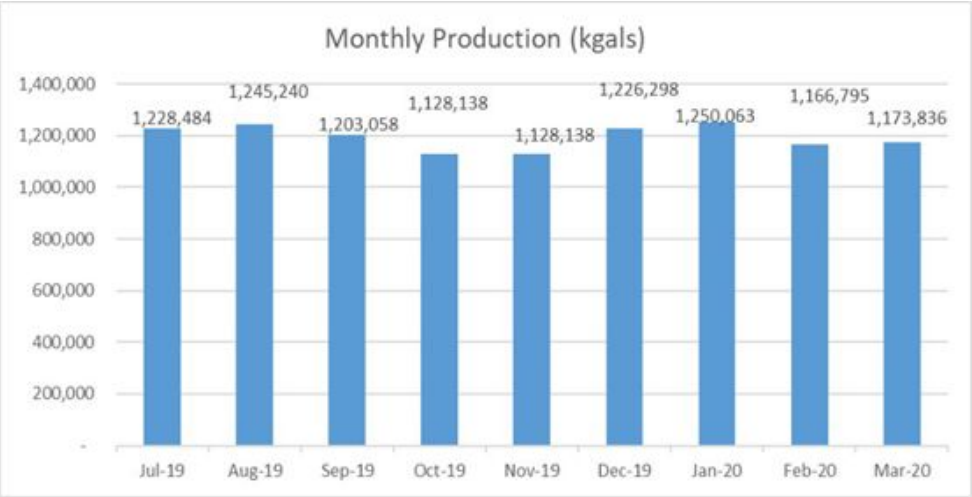
Management Report
GPWA CCU Board Meeting, April 28, 2020

Operations Update

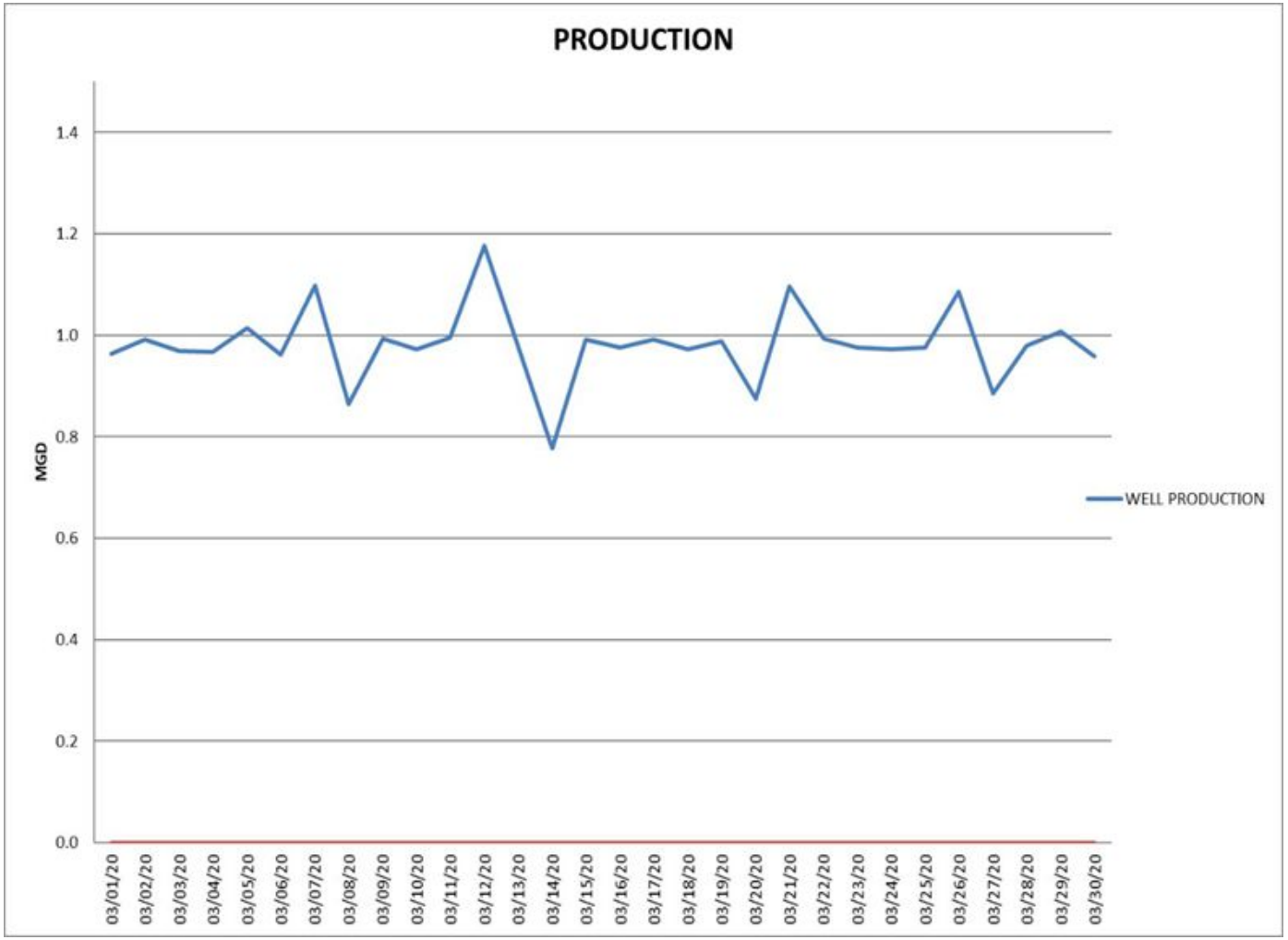
Production (March 2020)

Monthly Production Summary - March 2020				
Deep Wells **			34.4	MGD
Active wells =	96	of 120		
Avg days in operation =	31	days		
Total Production =	1,065,091	Kgals		
Springs			0.24	MGD
Avg days in operation =	31	days		
Total Production =	7484	Kgals		
Ugum Surface Water Plant			2.3	MGD
Avg days in operation =	31	days		
Total Production =	70,830	Kgals		
Tumon Maui Well			0.98	MGD
Avg days in operation =	31	days		
Total Production =	30,431	Kgals		
	1,173,836	Kgals	37.9	MGD
** Deep Well Data as of February 2020; March data is pending				

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	

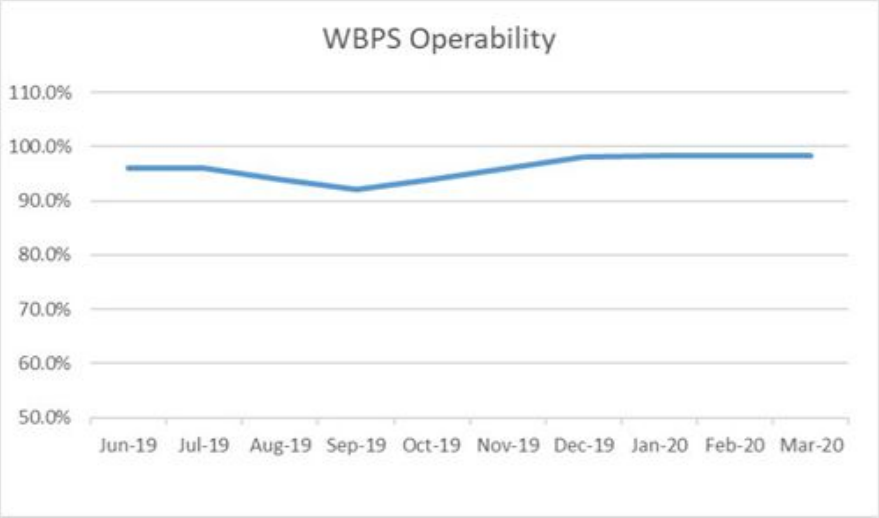


Tumon Maui Well Production (March 2020)

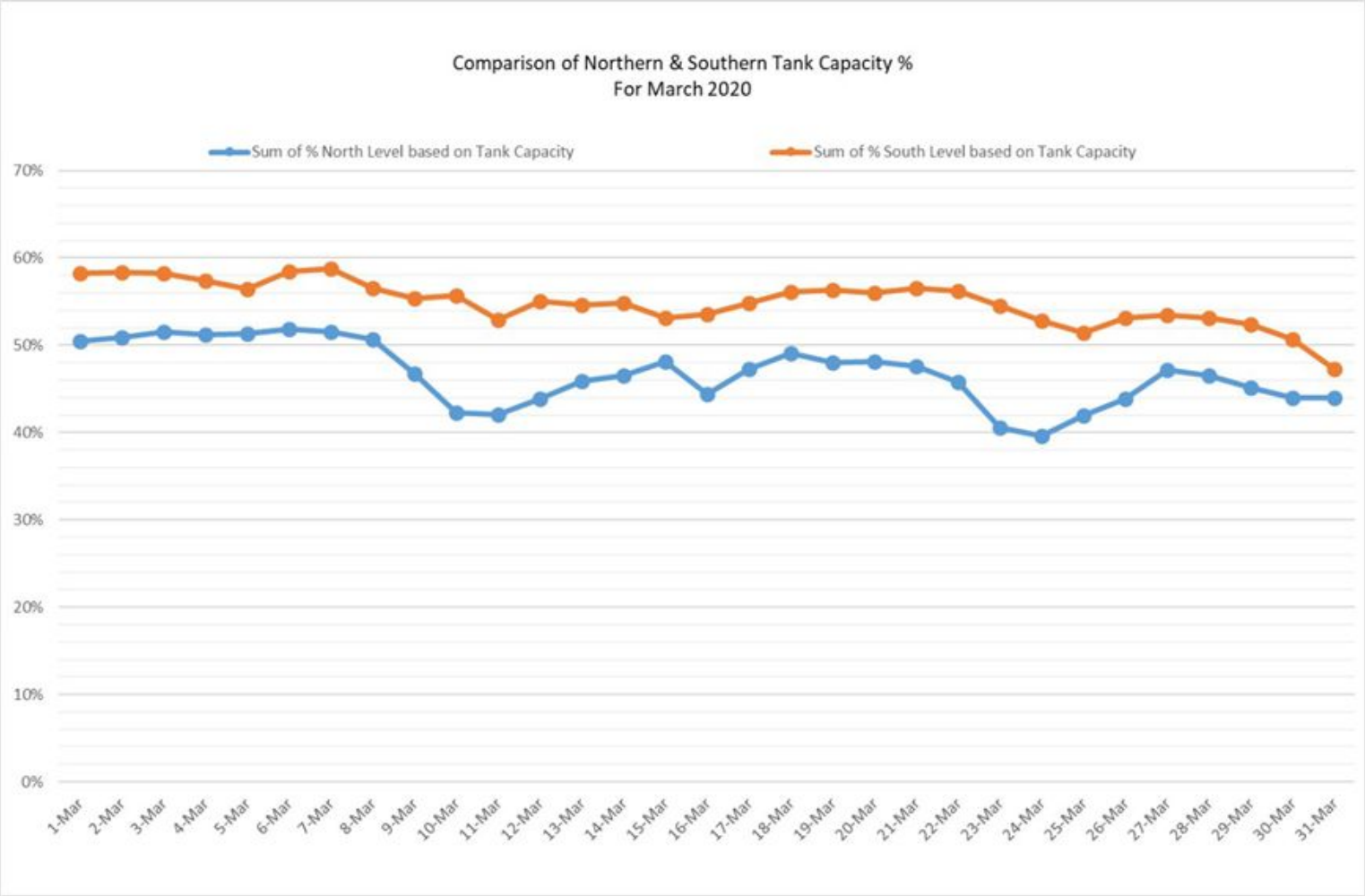


Distribution (March 2020)

Monthly Distribution Summary - March 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%

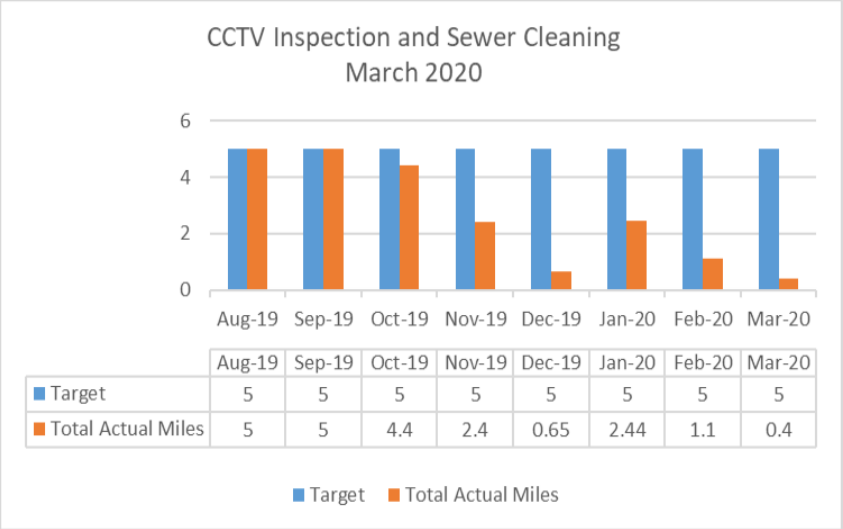


Distribution – Tank Levels (March 2020)



Wastewater Collections (March 2020)

Monthly Collections Summary - March 2020					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	45	86.5%
	Central	29	63	54	85.7%
	Southern	26	56	52	92.9%
		77	171	151	88.3%



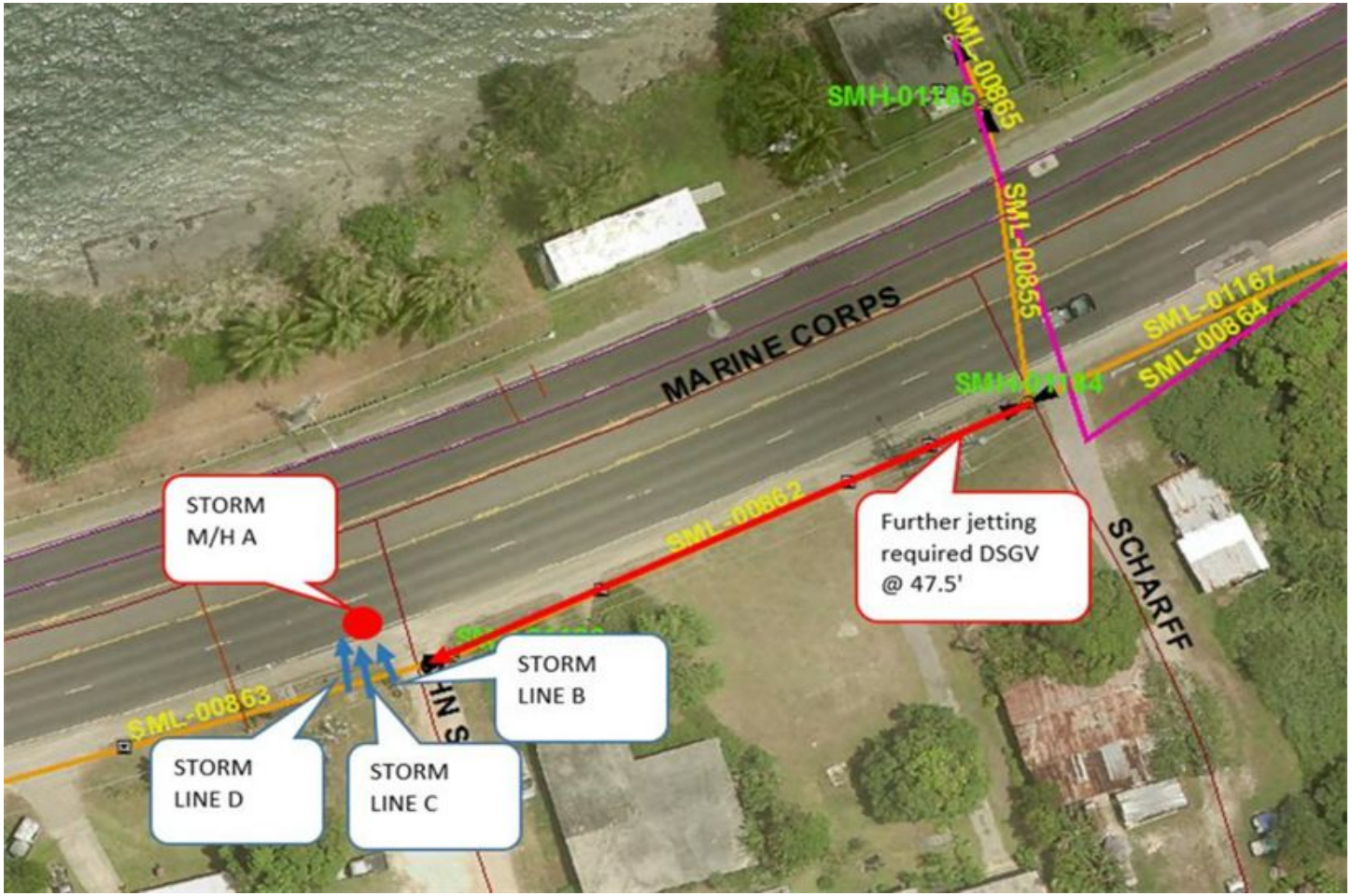
	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20
Target	5	5	5	5	5	5	5	5
Total Actual Miles	5	5	4.4	2.4	0.65	2.44	1.1	0.4

Wastewater Collections –Cleaning/Jetting (March 2020)

Yigo – Zero Down

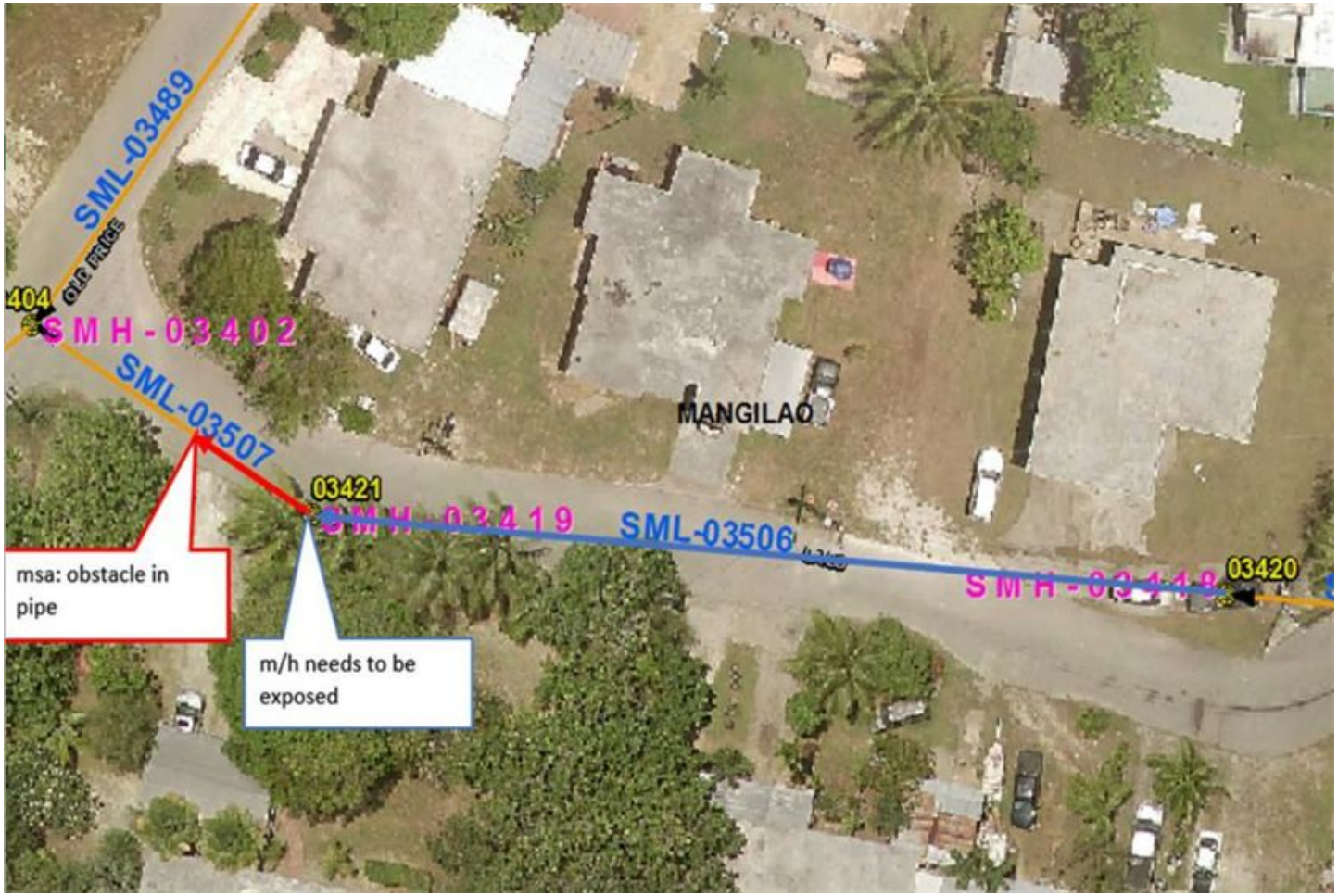
Wastewater Collections –Cleaning/Jetting (March 2020)

Piti Covert



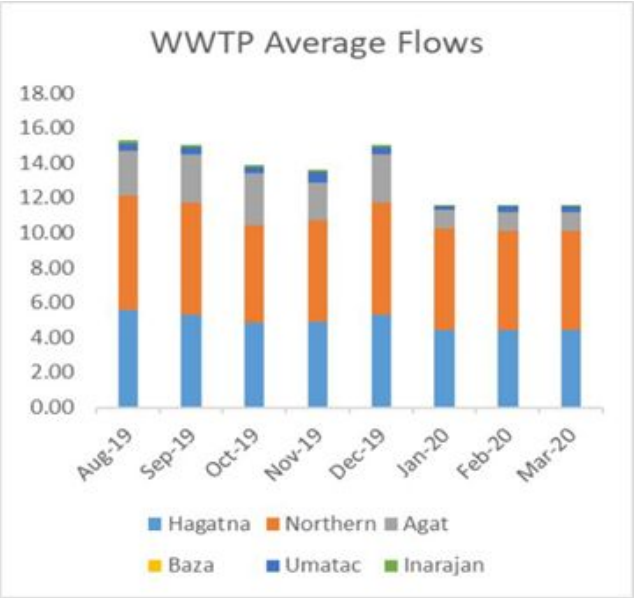
Wastewater Collections –Cleaning/Jetting (March 2020)

Mangilao



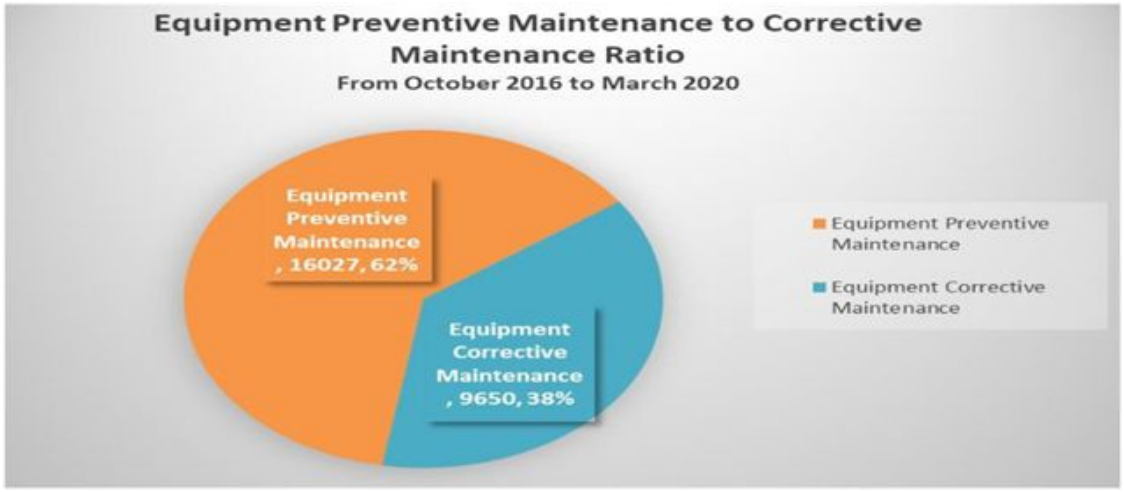
Wastewater Treatment (March 2020)

Monthly Wastewater Treatment Summary - March 2020				
WW Treatment Plants - Flows				
	Facility	**Avg. Daily Flows**	**Sludge (lbs)**	**Sludge Disp. ($)**
	Hagatna	4.23	141,260	$ 12,713
	Northern	4.95	1,445,880	$ 130,129
	Agat	0.85	98,060	$ 8,825
	Baza	0		
	Umatac	0.22		
	Inarajan	0.04		
		10.29	1,685,200	$ 151,667

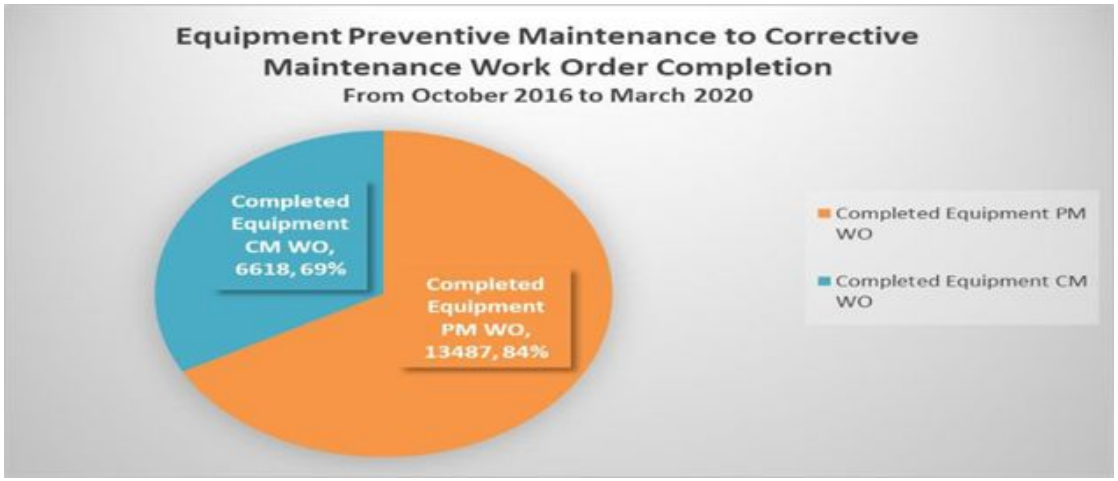


Asset Management (March 2020)

I. Equipment Preventive Maintenance to Corrective Maintenance ***Ratio***

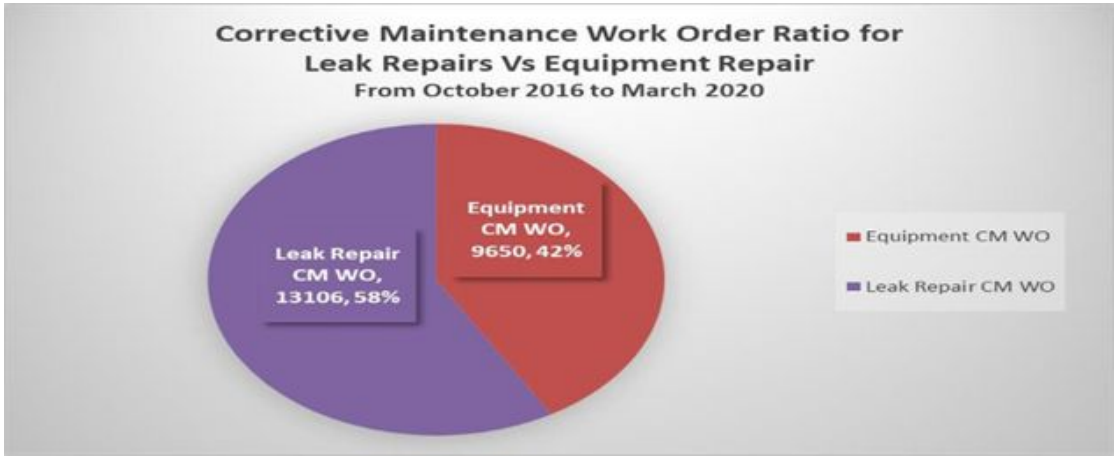


II. Equipment Preventive Maintenance to Corrective Maintenance ***Work Order Completion***

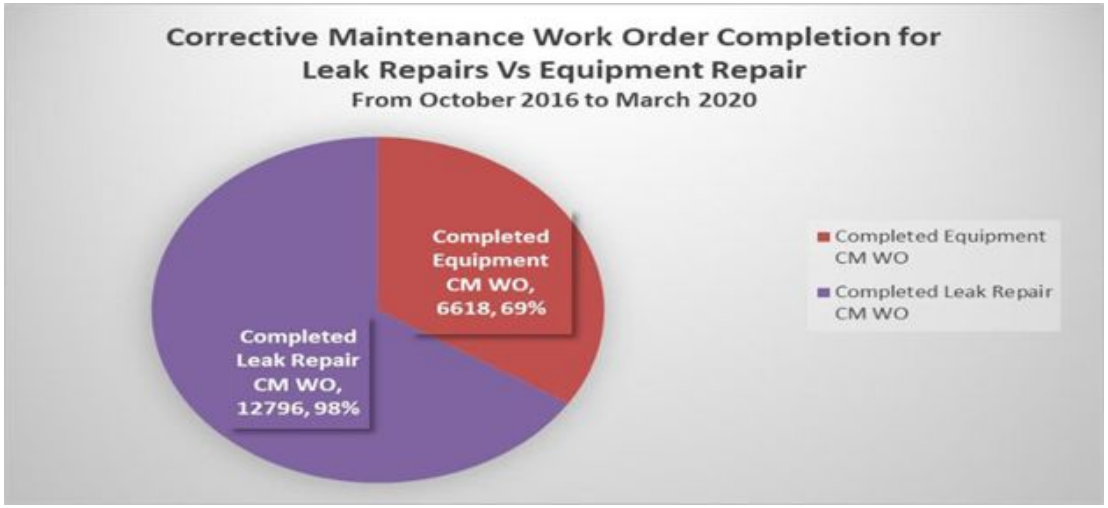


Asset Management (March 2020)

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:
  - Hagatna (AOLG) (Mar 1st) – damage resulted from temporary line for contractor for Rte. 4 sewerline
  - Yigo near Y-16 (Mar 9th – 10th) – damage from vandalism/fire in nearby valve vault
  - Santa Rita, Sumay Memorial Drive (Mar 11th)
  - Casimiru (Mar 23rd – Mar 24th)
  - Sultan Road Nimitz Hill (Mar 23rd)
  - Maimai Road (Mar 29th)
- Service line leaks:
  - Jonestown (Mar 11th)
  - Yigo (Mar 16th)
  - Chalan Pago (Mar 16th)
  - Ysengsong (Mar 18th)
  - Alageta Street (Mar 25th)
- Production Interruptions due to multiple well trips this month – affected:
  - Yigo and Barrigada Reservoir levels (Mar 13th – 14th)
  - Barrigada Heights (Mar 22nd)
  - Yigo wells (Mar 22nd)
- Service Issue work
  - Nimitz Hill service line valve replacement (Mar 5th);
  - GMH defective PRV (Mar 11th)
  - Defective float valve Santa Rita Springs (Mar 14th)
  - Nimitz Hill defective PRV repaired (end of March)

Wastewater Collection & Treatment

- Collection System:
  - Route 1 and Route 4 projects still in progress; traffic impacts are on-going
  - Route 3 and Route 9 interceptor work (OEA) is about 81% (36,000 LF) complete
  - Oily waste in Piti Sewerline (Mar 2nd)
- NDWWTP (OEA)
  - Oxidation Ditches: Foundation work in second oxidation ditch – ongoing
  - Clarifiers:
    - work on yard piping under clarifier almost complete
    - foundation work on-going
  - Headworks: Foundation steelwork continues
  - Digester demolition:
    - sludge removal on-hold pending resolution of sludge management options;
    - contract change may be required
  - Water supply issues continue until lines in the area are upgraded

Meters from January 2017 through April 18, 2020

COMPLETED FIELD ACTIVITY JAN 2017 THRU APRIL 18 2020 (POSTED IN CIS)	2017	2018	2019	Jan-20	Feb-20	Mar-20	04/18/20	TOTAL:		COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Meter Exchange	6487	13353	10850	1079	714	548	117	33148		0

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	6079	12259	9278	749	908	1116	341	30730
AVG # OF FIELD STAFF PERFORMING CHANGE OUTS (MON THRU FRI):	19	16	7	7	7	7	7	
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	10	6.3	5	5	5	2	1	
TOTAL:	**29**	**22**	**12**	**12**	**12**	**9**	**8**	

*project suspended effective 04/13/20

REMAINING ACTIVE BADGER LP MODELS TO BE REPLACED AS OF 04/18/20: ***452***

3/4" BADGER METERS IN STOCK AS OF April 17, 2020:

Size	Meter Description	New Meters Passed	New Meters Untested	Passed Field Meters	MMP	Meters Available
3/4"	METER, Badger AMR 5/8" X 3/4" RCDL Model M25 Disc Meter	429	0	246	0	675
3/4"	METER, Badger AMR 5/8" x 3/4" **WARRANTY** RCDL Model M25	0	0	0	0	0
3/4"	METER,Badger 5/8"x3/4" NSF61-G RCDL M25LL Disc Meter Integral	2	0	3	0	5
3/4"	METER, Badger AMR 5/8" x 3/4" RCDL Model M25 ***RMI***	0	0	0	0	0
3/4"	METER, Badger E-SERIES 5/8"X3/4" ULTRASONIC	960	0	0	0	960

Backbilling through March 2020

Guam Waterworks Authority

Collections Report[1] on Accounts Backbilled thru March 31, 2020

For fiscal years 2015 thru 2020 (Mar)

Accounts Billed			Collection Status											
			Amounts Collected[1]			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	473	301,732	76%	14	20,967	5%	23	48,869	12%	27	25,883	7%
FY2018	1,374	$ 742,109	1,207	563,546	76%	48	61,850	8%	69	74,710	10%	50	42,005	6%
FY2019	8,324	$ 3,064,384	7,544	2,433,544	79%	142	121,950	4%	431	400,511	13%	207	108,379	4%
FY2020	1,816	$ 506,622	1,284	183,774	36%	15	5,282	1%	487	310,878	61%	30	6,689	0%
Total	**12,068**	**$ 4,711,447**	**10,525**	**$ 3,483,477**	**74%**	**219**	**$ 210,049**	**4%**	**1,010**	**$ 834,967**	**18%**	**314**	**$ 182,955**	**4%**

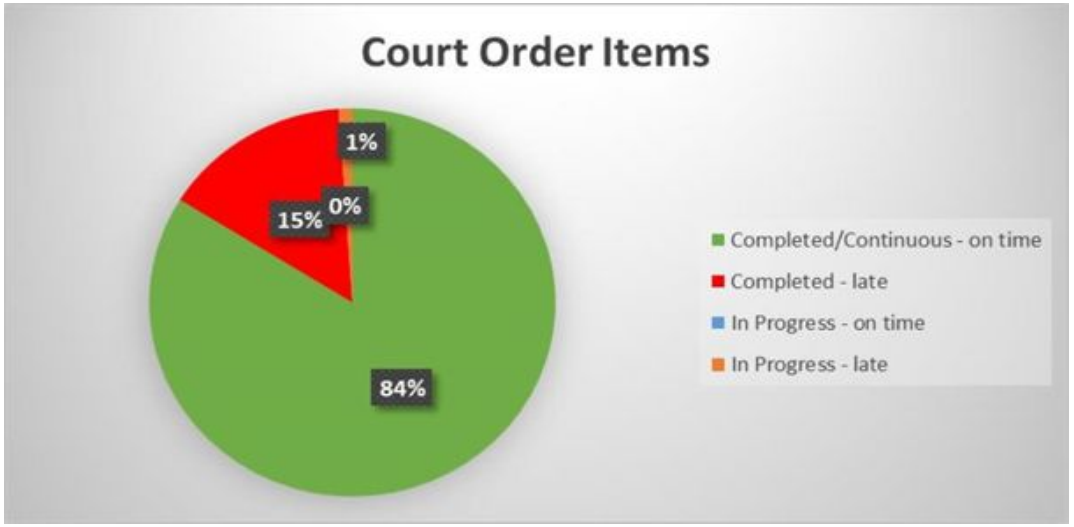
[1] Collections thru Apr 16, 2020

One Guam Update

- GWA initiated discussion on mutual assistance in relation to COOP for COVID-19 response
- Navy exploring options to facilitate a formal agreement; Command is considering request
- Meetings suspended due to COVID-19 – no new issues/updates to report on regular tracking items

Court Order Summary (March 2020)

	Total Items	On-time Items Completed / Continuous	In Progress - late	Completed - Late	In Progress - on time	Performance %
Court order total	93	78	1	14	0	98.90%



	Court Order Items	%	Performance (on-time or completed)
Completed/Continuous - on time	78	84%	
Completed - late	14	15%	
In Progress - on time	0	0%	
In Progress - late	1	1%	98.9%
Totals	93	100%	

Court Order

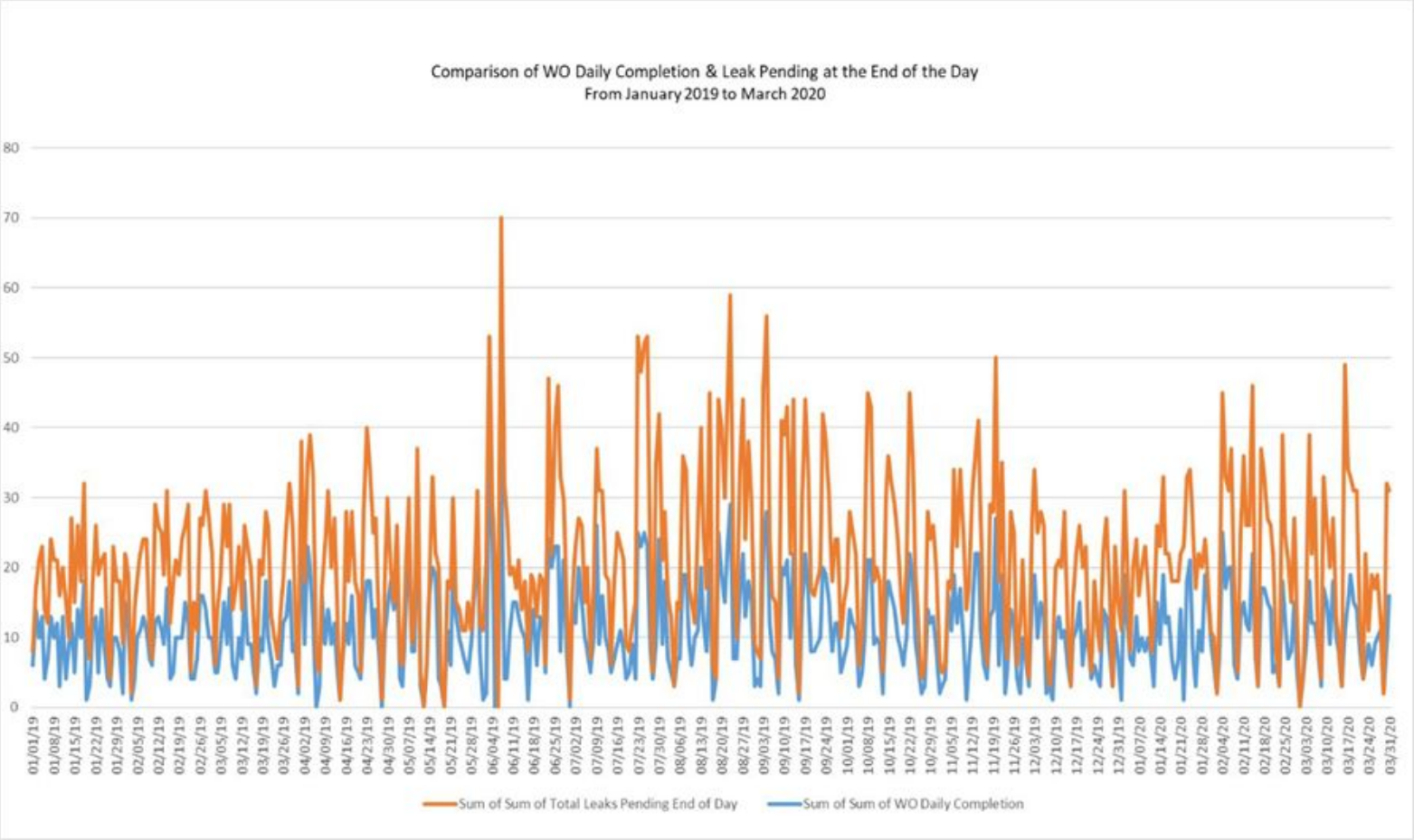
Status Information (for March and April 2020)

- 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:
    - 03-16-2020 Cascaho Street, Tamuning, Manhole Overflow – FOG
    - 03-19-2020 Aragon Street, Toto, Manhole Overflow – FOG
    - 03-19-2020 Chalan Soling, Piti, Sewer Spill – Pipe Structure failure
    - 03-25-2020 Rt-2 Agat, Across 76 Gas Station, SSO – FOG
    - 04-05-2020 132 Ocean View Dr., Asan – FOG

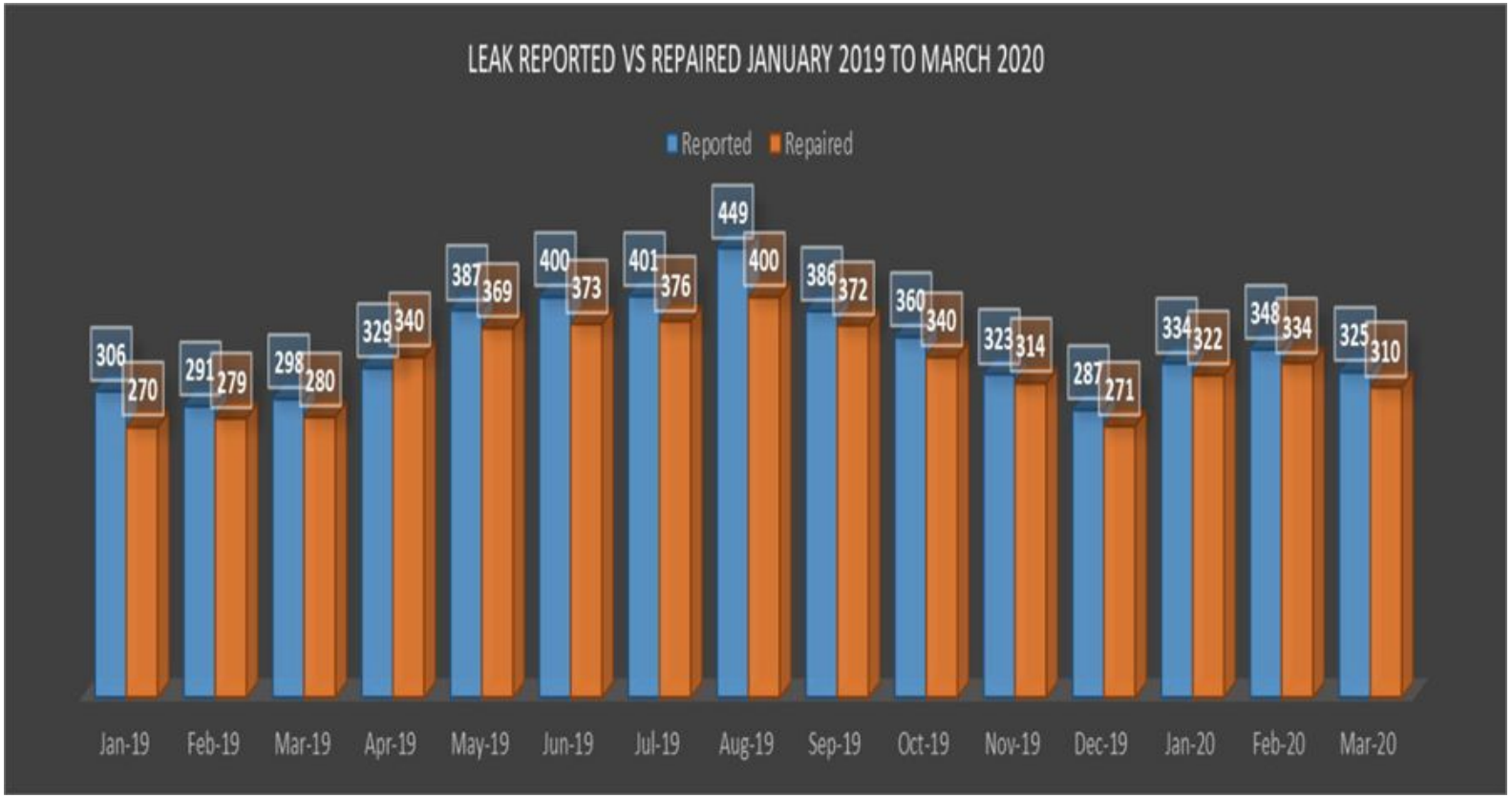
Land Acquisition Summary (as of March 2020)

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	Private	Letter of 1st offer to property owner was signed by GM on 04/21/2020.
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2nd 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.

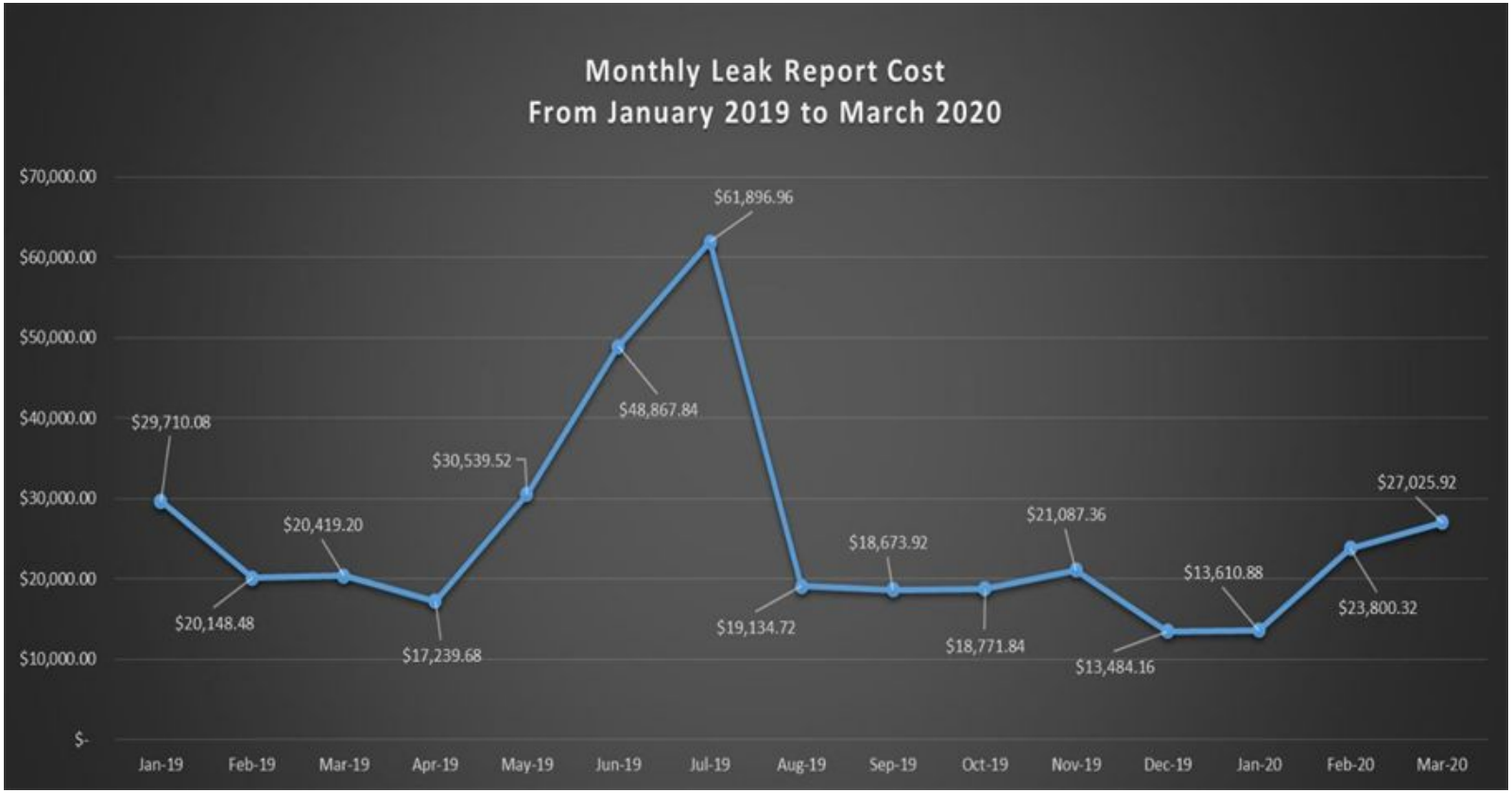
Leak Repair Summary (March 2020)



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



Monthly Leak Report Cost (March 2020)



Assumptions:

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

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives"

Financial Statement Overview
March 2020

In response to the Global Health Emergency declared by the World Health Organization and the national emergency declared by President Donald Trump, on March 14, 2020, Governor Lourdes A. Leon Guerrero, issued Executive Order 2020-03 declaring a state of emergency to respond to Novel Coronavirus (COVID-19). Further, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices, the prohibition of large gatherings, and restricted entry into Guam from countries with confirmed COVID-19 cases.

From October 2019 through February 2020, 56% of payments came through the customer service offices in Upper Tumon, Julale, and Fadian. Based on the Executive Orders, GPWA customer service offices were closed on March 16. However, on March 23, 2020, GWA reopened its Upper Tumon drive-thru for the convenience of our cash paying customers as well as those who prefer to make payments in person. GWA has also been encouraging its customers through flyers, social media, and press releases to use alternate ways of paying their water bills.

While YTD consumption improved compared to last year (water consumption +1%, wastewater consumption +3%), March 2020 consumption was down compared to March 2019 (water consumption -15%, wastewater consumption -2%). We continue to monitor bills as they drop in April to determine the impact on hotel consumption due to the lack of tourists as well as on business and government demand due to the closure of non-essential businesses and government agencies. See Schedule K for Water Demand for FY2015 to FY2020.

A cost containment plan has been put into effect in response to declining revenues as well as the PUC rate order not including compressed rates. However, the public health emergency has required additional outlays for emergency pay and other COVID-19 related expenses. While sufficient cash reserves are in place, management will continue to assess the situation and make any course corrections required to ensure continuity of services to our customers while keeping the safety of our staff the highest priority.

Balance Sheet

- Total Assets & Deferred Outflows of Resources were about the same at $911.5M in March 2020 compared to $913.0M in September 2019 or a decrease of $1.5M. Current Assets decreased by $6.2M, Property, Plant and Equipment increased by $19.5M, and Other Noncurrent Assets decreased by $14.4M. Note that Schedule F contains a schedule of restricted and unrestricted cash and investments.
- Total Liabilities & Deferred Inflow of Resources of $696.7M at March 2020 decreased from $713.8M in September 2019 by $17.0M or 2% due primarily to decreases in Current Liabilities of $16.3M.
- Accounts Receivable days were 47 in March 2020 as compared to 50 in September 2019 and Accounts Payable days were 37 in March 2020 as compared to 38 in September 2019.

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives"

Statement of Operations and Retained Earnings

- Total Operating Revenues for March 2020 of $8.8M were 13% or $1.3M less than budget and 9% or $856K less than March 2019 due to the impact of the COVID-19 emergency.
- Year to Date Operating Revenues as of March 2020 of $55.5M were $5.2M or 9% less compared to budget and were about the same as last year. Note that the budget, as adopted by the PUC rate order, projected a 5% increase for the entire fiscal year. The rate increase went into effect in March 2020 slightly offsetting reductions in consumption.
- Total Operating Expenses for March 2020 of $7.1 M were $547.2K or 7% less than budget, with all expenses coming in below budget except for Depreciation; there were three pay periods processed in March. Total Operating Expenses for March 2020 were 3% or $176.7K more than March 2019 with the increases in Utilities of $77.5K and Depreciation of $253.5K offset by decreases in Salaries and Benefits of $4.8K, Administrative & General Expenses of $32.1K, Contractual Expense of $72.2K and Retiree Benefits of $45.2K.
- Year to Date Operating Expenses at March 2020 of $43.6.M were $2.2M less than budget of $45.7M with expenses coming in below budget expect for Depreciation, and Provision for Bad Debts. Year to Date Operating Expenses at March 2020 were $2.1M or 5% more than last year's $41.5M with increases in Utility Costs of $1.1M, Administrative & General Expense of $213.9K and Depreciation of $1.50M offset by decreases in Net Salaries and Benefits of $150K, Contractual Expenses of $313.5K, and Retiree Benefits of $278.7K.
- Earnings from Operations for March 2020 of $1.7M were 30% or $756.9K less than budget and 37% or $1.0M less than March 2019. Net Assets for March 2020 of -$88.8K were $3.3M less than budget mainly due to no activity in Grants from US Government and -$4.4M less than March 2019 due to no activity in AFUDC and Grants from US Government.
- Year to Date Earnings from Operations as of March 2020 of $11.9M were 20% or $3.0M less than budget and 14% or $1.9M less than YTD Earnings as of March 2019. Year to Date Change in Net Assets as of March 2020 of $15.5M were $3.6M less than budget mainly due $5.2M less in Grants from US Government than projected. Year to Date Change in Net Assets as of March 2020 were $3.6M or 19% less than YTD as of March 2019.

Key Financial Indicators

Indicator	Target	February 2020	March 2020
DSC YTD			
• Per Section 6.12 of Indenture	1.25	1.45	1.42
• Per PUC / CCU	1.40	1.45	1.42
Days – Cash on Hand	120 days	221 days	187 days
Collection Ratio			
• Month to Date	98%	101%	95%
• Year to Date	98%	99%	98%
Days Billed	30	29	29
Account Receivable Days	45	45	47
Account Payable Days	45	34	37
Employee Count	400 FTE	378 FTE	377 FTE
Water Customers	42,644	42,722	42,250

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives"

Wastewater Customers	29,687	29,419	29,194

GUAM WATERWORKS AUTHORITY
MARCH 31, 2020
FINANCIAL AND RELATED REPORTS
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GUAM WATERWORKS AUTHORITY
Balance Sheet
March 31, 2020

SCHEDULE A

ASSETS AND DEFERRED OUTFLOWS of RESOURCES	Unaudited March 31, 2020	Unaudited September 30, 2019	Increase (Decrease)
Current Assets			
Cash			
Unrestricted (Schedule F)	6,190,392	4,962,036	1,228,356
Restricted Funds (Schedule F)	83,591,978	86,491,728	(2,899,750)
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of $8,887,543 at Mar 31, 2020 and $7,789,943 at Sep 30, 2019	13,548,112	14,346,247	(798,135)
Federal Receivable	393,025	3,711,435	(3,318,411)
Other Receivable	1,753,453	1,794,082	(40,627)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of $64,131 at Mar 31, 2020 and $64,131 at Sep 30, 2019	3,504,957	3,897,352	(392,395)
Total Current Assets	108,981,918	115,202,881	(6,220,962)
Property, Plant and Equipment			
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	(333,570,822)	(321,561,403)	(12,009,419)
Land	3,914,815	3,914,815	-
Construction Work in Progress	102,850,972	100,162,613	2,688,358
Property, Plant and Equipment, net	636,563,297	617,097,852	19,465,445
Other noncurrent assets and deferred charges			
Restricted cash (Schedule F)	90,388,809	109,937,511	(19,548,702)
Investments (Schedule F)	48,153,099	43,808,664	4,344,435
Other Prepaid Expenses	2,073,541	1,667,816	405,725
Regulatory Asset	429,812	-	429,812
Total other noncurrent assets and deferred charges	141,045,261	155,413,991	(14,368,730)
Total Assets	886,590,476	887,714,724	(1,124,247)
Deferred outflows of resources			
Debt defeasance due to bond refunding	11,562,527	11,976,380	(413,853)
Deferred outflows from pension	4,233,025	4,233,025	-
Deferred outflows from OPEB	9,070,814	9,070,814	-
Total Assets and Deferred Outflows of Resources	**911,456,842**	**912,994,943**	**(1,538,100)**
LIABILITIES, DEFERRED INFLOWS of RESOURCES AND NET ASSETS			
Current Liabilities			
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	-
Series 2017 Refunding Bond	-	-	-
Notes Payable	-	2,319,108	(2,319,108)
Accounts Payable -Trade	3,540,768	4,121,364	(580,596)
Accrued and Other Liabilities	809,736	1,374,650	(564,915)
Interest Payable	6,351,297	6,359,303	(8,006)
Accrued Payroll and Employee Benefits	1,558,124	1,685,235	(127,111)
Accrued Annual Leave	1,054,545	1,054,545	-
Current portion of employee annual leave	584,204	584,204	-
Contractors' Payable	9,498,377	22,094,820	(12,596,443)
Customer and Other Deposits	2,226,991	2,349,490	(122,499)
Total Current Liabilities	34,394,041	50,712,718	(16,318,677)
Long Term Debt, less current maturities			
Series 2010 Revenue Bond	-	-	-
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	31,143,771	31,863,590	(719,819)
Notes Payable	-	0	(0)
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	-
Total Liabilities	686,108,370	703,146,866	(17,038,495)
Deferred inflows of resources:			
Deferred inflows from pension	1,870,115	1,870,115	-
Deferred inflows from OPEB	8,741,900	8,741,900	-
Total Liabilities and Deferred Inflows of Resources	696,720,385	713,758,880	(17,038,495)
Net Assets	**214,736,457**	**199,236,062**	**15,500,394**
Total Liabilities, Deferred Inflows of Resources and Net Assets	**911,456,842**	**912,994,943**	**(1,538,101)**

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative Budget vs. Actual for the period ending March 31, 2020

SCHEDULE B

	Month to Date Budget March-20	Month to Date Actual (Unaudited) March-20	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	6,160,479	5,429,776	(730,703)
Wastewater Revenues	3,533,486	2,935,280	(598,206)
Legislative Surcharge	306,677	254,657	(52,020)
Other Revenues	35,994	18,787	(17,207)
System Development Charge	76,247	170,282	94,035
Total Operating Revenues	10,112,884	8,808,782	(1,304,102)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	690,282	645,791	44,492
Power Purchases	1,233,374	1,232,680	694
Total Utility Costs	1,923,656	1,878,470	45,186
Salaries and Wages	1,827,179	2,031,038	(203,858)
Pension and Benefits	533,420	543,183	(9,763)
Total Salaries and Benefits	2,360,600	2,574,220	(213,621)
Capitalized Labor and Benefits	(308,333)	(709,986)	401,653
Net Salaries and Benefits	2,052,266	1,864,235	188,032
Administrative and General Expenses			
Sludge removal	123,782	119,822	3,960
Chemicals	209,929	163,036	46,893
Materials & Supplies	170,243	118,860	51,384
Transportation	39,807	33,969	5,838
Communications	15,506	10,548	4,958
Claims	5,529	-	5,529
Insurance	81,845	77,860	3,984
Training & Travel	31,294	1,425	29,869
Advertising	12,109	11,885	224
Miscellaneous	112,411	110,734	1,677
Regulatory Expense	25,780	8,319	17,461
Bad Debts Provision	173,473	172,388	1,084
Total Administrative and General Expense	1,001,707	828,845	172,861
Depreciation Expense	1,830,222	2,012,611	(182,389)
Contractual Expense			
Audit & Computer Maintenance	88,770	40,590	48,180
Building rental	39,512	36,253	3,259
Equipment rental	83,629	67,288	16,342
Legal	538	-	538
Laboratory	33,808	19,625	14,183
Other	255,859	85,633	170,226
Total Contractual Expense	502,116	249,389	252,727
Retiree Supp. Annuities and health care costs	259,620	192,545	67,075
Contribution to Government of Guam	54,003	50,333	3,670
Total Retiree Benefits	313,623	242,878	70,745
Total Operating Expenses	7,623,591	7,076,429	547,162
Earnings (Loss) from Operations	2,489,293	1,732,353	(756,940)
Interest Income - 2010/13/14/16/17 Series Bond	112,563	196,569	84,006
Interest Income - Other Funds	18,048	48,408	30,360
Interest Income - SDC	2,131	5	(2,126)
Interest Expense - 2010/13/14/16/17 Series Bond	(2,675,432)	(2,117,099)	558,333
Interest Expense - ST BOG	(5,612)	(5,934)	(322)
Federal Expenditures	-	-	-
Loss on Asset Disposal	-	-	-
AFUDC	-	-	-
Amortization of Discount, Premium and Issuance Costs	(33,637)	119,970	153,606
Defeasance due to bond refunding	(28,676)	(68,976)	(40,299)
Deferred outflows from pension	-	-	-
Prior Year Adjustment	-	(300)	(300)
Total non-operating revenues (expenses)	(2,610,616)	(1,827,357)	783,258
Net Income (Loss) before capital contributions	(121,323)	(95,004)	26,318
Capital Contributions			
Grants from US Government	3,311,071	-	(3,311,071)
Grants from GovGuam & Others	-	6,250	6,250
Total Capital Contributions	3,311,071	6,250	(3,304,821)
Change in Net Assets	3,189,749	(88,754)	(3,278,503)
Debt Service Calculation			
Earnings From Operations	2,489,293	1,732,353	
System Development Charge	(76,247)	(170,282)	
Retiree COLA	54,003	50,333	
Interest/Investment Income	18,048	48,408	
Depreciation	1,830,222	2,012,611	
Balance Available for Debt Service per Section 6.12	4,315,319	3,673,423	
Working Capital Reserve Available for Debt Service	-	-	
Transfer to Working Capital - Debt Service Reserve	-	-	
Transfer to Working Capital - O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	4,315,319	3,673,423	
Debt Service			
Principal	730,833	730,833	
Interest	2,117,099	2,117,099	
Total	2,847,932	2,847,932	
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.52	1.29	
Debt Service Coverage (1.40X) inclusive of reserves (PUC)	1.52	1.29	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited)
Comparative for the period ending March 31, 2020 and 2019

SCHEDULE C

	Month to Date Actual March-20	Month to Date Actual March-19	Variance Increase / (Decrease)
OPERATING REVENUES			
Water Revenues	5,429,776	6,027,093	(597,317)
Wastewater Revenues	2,935,280	3,210,062	(274,782)
Legislative Surcharge	254,657	299,746	(45,089)
Other Revenues	18,787	54,619	(35,832)
System Development Charge	170,282	72,819	97,464
Total Operating Revenues	8,808,782	9,664,339	(855,556)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	645,791	569,607	76,184
Power Purchases	1,232,680	1,231,315	1,365
Total Utility Costs	1,878,470	1,800,922	77,548
Salaries and Wages	2,031,038	1,657,555	373,483
Pension and Benefits	543,183	519,858	23,325
Total Salaries and Benefits	2,574,220	2,177,412	396,808
Capitalized Labor and Benefits	(709,986)	(308,333)	(401,653)
Net Salaries and Benefits	1,864,235	1,869,079	(4,845)
Administrative and General Expenses			
Sludge removal	119,822	151,750	(31,928)
Chemicals	163,036	185,327	(22,291)
Materials & Supplies	118,860	79,246	39,614
Transportation	33,969	38,308	(4,339)
Communications	10,548	14,357	(3,809)
Claims	-	-	-
Insurance	77,860	75,172	2,689
Training & Travel	1,425	14,457	(13,032)
Advertising	11,885	8,149	3,736
Miscellaneous	110,734	86,189	24,545
Regulatory Expense	8,319	17,455	(9,136)
Bad Debts Provision	172,388	190,562	(18,174)
Total Administrative and General Expense	828,845	860,971	(32,126)
Depreciation Expense	2,012,611	1,759,065	253,546
Contractual Expense			
Audit & Computer Maintenance	40,590	33,698	6,892
Building rental	36,253	35,211	1,042
Equipment rental	67,288	78,658	(11,370)
Legal	-	-	-
Laboratory	19,625	1,966	17,659
Other	85,633	172,019	(86,385)
Total Contractual Expense	249,389	321,551	(72,162)
Retiree Supp. Annuities and health care costs	192,545	238,096	(45,550)
Contribution to Government of Guam	50,333	50,000	333
Total Retiree Benefits	242,878	288,096	(45,217)
Total Operating Expenses	7,076,429	6,899,685	176,745
Earnings (Loss) from Operations	1,732,353	2,764,654	(1,032,301)
Interest Income - 2010/13/14/16/17 Series Bond	196,569	281,057	(84,489)
Interest Income - Other Funds	48,408	59,085	(10,677)
Interest Income - SDC	5	17,868	(17,863)
Interest Expense - 2010/13/14/16/17 Series Bond	(2,117,099)	(2,137,785)	20,686
Interest Expense - ST BOG	(5,934)	(16,959)	11,025
Federal Expenditures	-	-	-
Loss on Asset Disposal	-	-	-
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	-	-	-
Prior Year Adjustment	(300)	(2,607)	2,307
Total non-operating revenues (expenses)	(1,827,357)	(591,859)	(1,235,498)
Net Income (Loss) before capital contributions	(95,004)	2,172,795	(2,267,799)
Capital Contributions			
Grants from US Government	-	2,091,233	(2,091,233)
Grants from GovGuam & Others	6,250	-	6,250
Total Capital Contributions	6,250	2,091,233	(2,084,983)
Change in Net Assets	(88,754)	4,264,028	(4,352,782)

Debt Service Calculation		
Earnings From Operations	1,732,353	2,764,654
System Development Charge	(170,282)	(72,819)
Retiree COLA	50,333	50,000
Interest/Investment Income	48,408	59,085
Depreciation	2,012,611	1,759,065
Balance Available for Debt Service per Section 6.12	3,673,423	4,559,986
Working Capital Reserve Available for Debt Service	-	954,001
Transfer to Working Capital - Debt Service Reserve	-	-
Transfer to Working Capital - O&M Reserve	-	-
Balance Available for Debt Service inclusive of reserves	3,673,423	5,513,986
Debt Service		
Principal	730,833	476,250
Interest	2,117,099	2,137,785
Total	2,847,932	2,614,035
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.29	1.74
Debt Service Coverage (1.40X) inclusive of reserves (PUC)	1.29	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)		2.11

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative Budget vs. Actual for the period ending March 31, 2020

SCHEDULE D

	Year to Date Budget March-20	Year to Date Actual (Unaudited) March-20	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	36,962,876	33,819,709	(3,143,167)
Wastewater Revenues	21,200,918	19,299,116	(1,901,802)
Legislative Surcharge	1,840,063	1,713,005	(127,058)
Other Revenues	215,966	302,664	86,698
System Development Charge	457,482	370,826	(86,656)
Total Operating Revenues	60,677,305	55,505,320	(5,171,985)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	3,661,694	3,614,135	47,558
Power Purchases	7,880,245	7,875,417	4,828
Total Utility Costs	11,541,938	11,489,553	52,386
Salaries and Wages	10,963,077	9,956,176	1,006,900
Pension and Benefits	3,200,520	3,119,672	80,849
Total Salaries and Benefits	14,163,597	13,075,848	1,087,749
Capitalized Labor and Benefits	(1,850,000)	(2,140,283)	290,283
Net Salaries and Benefits	12,313,597	10,935,565	1,378,032
Administrative and General Expenses			
Sludge removal	804,691	718,931	85,760
Chemicals	1,214,575	997,284	217,290
Materials & Supplies	1,171,459	940,009	231,450
Transportation	278,842	274,862	3,981
Communications	93,034	65,278	27,757
Claims	33,175	31,693	1,483
Insurance	491,068	467,387	23,681
Training & Travel	187,761	96,159	91,602
Advertising	72,656	22,178	50,478
Miscellaneous	572,464	555,844	16,620
Regulatory Expense	199,679	197,241	2,438
Bad Debts Provision	890,836	1,097,506	(206,670)
Total Administrative and General Expense	6,010,241	5,464,372	545,869
Depreciation Expense	10,981,335	12,048,279	(1,066,944)
Contractual Expense			
Audit & Computer Maintenance	512,619	335,924	176,695
Building rental	237,071	217,753	19,318
Equipment rental	506,777	504,762	2,015
Legal	18,226	18,082	144
Laboratory	202,847	118,525	84,322
Other	1,535,155	1,007,477	527,678
Total Contractual Expense	3,012,695	2,202,523	810,172
Retiree Supp. Annuities and health care costs	1,557,722	1,142,888	414,834
Contribution to Government of Guam	324,018	302,002	22,016
Total Retiree Benefits	1,881,739	1,444,890	436,849
Total Operating Expenses	45,741,546	43,585,182	2,156,364
Earnings (Loss) from Operations	14,935,759	11,920,138	(3,015,621)
Interest Income - 2010/13/14/16/17 Series Bond	675,379	1,119,639	444,260
Interest Income - Other Funds	108,287	294,829	186,542
Interest Income - SDC	12,784	59,067	46,284
Interest Expense - 2010/13/14/16/17 Series Bond	(16,052,594)	(12,702,594)	3,350,000
Interest Expense - ST BOG	(33,673)	(38,142)	(4,469)
Federal Expenditures	-	-	-
Loss on Asset Disposal	-	(118,143)	(118,143)
AFUDC	-	-	-
Amortization of Discount, Premium and Issuance Costs	(201,820)	719,819	921,639
Defeasance due to bond refunding	(172,057)	(413,853)	(241,796)
Deferred outflows from pension	-	-	-
Prior Year Adjustment	-	(31,038)	(31,038)
Total non-operating revenues (expenses)	(15,663,694)	(11,110,416)	4,553,278
Net Income (Loss) before capital contributions	(727,935)	809,722	1,537,657
Capital Contributions			
Grants from US Government	19,866,428	14,684,422	(5,182,006)
Grants from GovGuam & Others	-	6,250	6,250
Total Capital Contributions	19,866,428	14,690,672	(5,175,756)
Change in Net Assets	19,138,493	15,500,394	(3,638,099)
Debt Service Calculation			
Earnings From Operations	14,935,759	11,920,138	
System Development Charge	(457,482)	(370,826)	
Retiree COLA	324,018	302,002	
Interest/Investment Income	108,287	294,829	
Depreciation	10,981,335	12,048,279	
Balance Available for Debt Service per Section 6.12	25,891,916	24,194,423	
Working Capital Reserve Available for Debt Service	-	-	
Transfer to Working Capital - Debt Service Reserve	-	-	
Transfer to Working Capital - O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	25,891,916	24,194,423	
Debt Service			
Principal	4,385,000	4,385,000	
Interest	12,702,594	12,702,594	
Total	17,087,594	17,087,594	
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.52	1.42	
Debt Service Coverage (1.40X) inclusive of reserves (PUC)	1.52	1.42	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited)
Comparative for the period ending March 31, 2020 and 2019

SCHEDULE E

	Year to Date Actual March-20	Year to Date Actual March-19	Variance Increase / (Decrease)
OPERATING REVENUES			
Water Revenues	33,819,709	33,707,252	112,457
Wastewater Revenues	19,299,116	19,248,932	50,184
Legislative Surcharge	1,713,005	1,768,395	(55,390)
Other Revenues	302,664	275,886	26,778
System Development Charge	370,826	338,550	32,275
Total Operating Revenues	55,505,320	55,339,015	166,305
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	3,614,135	3,091,845	522,290
Power Purchases	7,875,417	7,286,554	588,863
Total Utility Costs	11,489,553	10,378,399	1,111,154
Salaries and Wages	9,956,176	9,832,265	123,911
Pension and Benefits	3,119,672	3,103,108	16,564
Total Salaries and Benefits	13,075,848	12,935,373	140,476
Capitalized Labor and Benefits	(2,140,283)	(1,850,000)	(290,283)
Net Salaries and Benefits	10,935,565	11,085,373	(149,808)
Administrative and General Expenses			
Sludge removal	718,931	776,547	(57,616)
Chemicals	997,284	1,004,659	(7,374)
Materials & Supplies	940,009	830,970	109,039
Transportation	274,862	253,469	21,393
Communications	65,278	69,744	(4,466)
Claims	31,693	35,899	(4,206)
Insurance	467,387	451,068	16,319
Training & Travel	96,159	91,170	4,990
Advertising	22,178	40,297	(18,118)
Miscellaneous	555,844	525,531	30,314
Regulatory Expense	197,241	81,710	115,532
Bad Debts Provision	1,097,506	1,089,411	8,095
Total Administrative and General Expense	5,464,372	5,250,473	213,899
Depreciation Expense	12,048,279	10,554,390	1,493,889
Contractual Expense			
Audit & Computer Maintenance	335,924	265,856	70,068
Building rental	217,753	211,265	6,489
Equipment rental	504,762	551,583	(46,822)
Legal	18,082	-	18,082
Laboratory	118,525	138,959	(20,434)
Other	1,007,477	1,348,347	(340,870)
Total Contractual Expense	2,202,523	2,516,010	(313,487)
Retiree Supp. Annuities and health care costs	1,142,888	1,423,635	(280,747)
Contribution to Government of Guam	302,002	300,000	2,002
Total Retiree Benefits	1,444,890	1,723,635	(278,745)
Total Operating Expenses	43,585,182	41,508,279	2,076,902
Earnings (Loss) from Operations	11,920,138	13,830,735	(1,910,597)
Interest Income - 2010/13/14/16/17 Series Bond	1,119,639	2,033,973	(914,334)
Interest Income - Other Funds	294,829	392,662	(97,833)
Interest Income - SDC	59,067	86,919	(27,852)
Interest Expense - 2010/13/14/16/17 Series Bond	(12,702,594)	(12,826,707)	124,114
Interest Expense - ST BOG	(38,142)	(109,600)	71,458
Federal Expenditures	-	-	-
Loss on Asset Disposal	(118,143)	-	(118,143)
AFUDC	-	6,943,836	(6,943,836)
Amortization of Discount, Premium and Issuance Costs	719,819	718,253	1,565
Defeasance due to bond refunding	(413,853)	(417,204)	3,350
Deferred outflows from pension	-	-	-
Prior Year Adjustment	(31,038)	(282,844)	251,806
Total non-operating revenues (expenses)	(11,110,416)	(3,460,712)	(7,649,704)
Net Income (Loss) before capital contributions	809,722	10,370,023	(9,560,301)
Capital Contributions			
Grants from US Government	14,684,422	8,658,249	6,026,173
Grants from GovGuam & Others	6,250	51,879	(45,629)
Total Capital Contributions	14,690,672	8,710,128	5,980,544
Change in Net Assets	15,500,394	19,080,151	(3,579,757)
Debt Service Calculation			
Earnings From Operations	11,920,138	13,830,735	
System Development Charge	(370,826)	(338,550)	
Retiree COLA	302,002	300,000	
Interest/Investment Income	294,829	392,662	
Depreciation	12,048,279	10,554,390	
Balance Available for Debt Service per Section 6.12	24,194,423	24,739,237	
Working Capital Reserve Available for Debt Service	-	5,724,005	
Transfer to Working Capital - Debt Service Reserve	-	-	
Transfer to Working Capital - O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	24,194,423	30,463,242	
Debt Service			
Principal	4,385,000	2,857,500	
Interest	12,702,594	12,826,707	
Total	17,087,594	15,684,207	
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.42	1.58	
Debt Service Coverage (1.40X) inclusive of reserves (PUC)	1.42		
Debt Service Coverage (1.75X) inclusive of reserves (PUC)		1.94	

GUAM WATERWORKS AUTHORITY
Restricted and Unrestricted Cash Summary
FY2020

SCHEDULE F

Description	Unaudited March 31, 2020	Unaudited September 30, 2019	Increase (Decrease)
UNRESTRICTED			
Change Fund	2,000	2,000	-
Petty Cash	4,450	4,450	-
BOG Deposit Accounts	6,183,943	4,955,587	1,228,356
Sub-total Unrestricted	**6,190,392**	**4,962,036**	**1,228,356**
RESTRICTED			
ANZ Bank	1,216	19	1,197
Bank Pacific	53,047	12,321	40,726
Bank of Hawaii	155,990	220,158	(64,167)
Community First FCU	13,252	2,530	10,722
First Hawaiian Bank	168,688	11,761	156,926
Bank Pacific Surcharge	1,156,833	302,837	853,996
Bank Pacific Escrow Deposit	842,101	836,528	5,573
BOG Customer Refunds	2,005,847	1,871,553	134,295
BOG Emergency Reserve Fund	6,240	6,237	3
BOG Sewer Hookup Revolving Fund	67,363	67,094	268
BOG Subordinate Security Fund	203,931	859,233	(655,302)
BOG Operation and Maintenance Fund	3,083,482	3,083,482	-
BOG OMRRRF Fund	17,423,213	17,423,213	-
BOG Revenue Trust	251,101	1,164,224	(913,123)
BOG Revenue Trust Fund	5,746,647	7,613,000	(1,866,353)
BOG Capital Improvement Revenue Fund	5,545,042	1,001,292	4,543,750
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	11,994,886	17,244,823	(5,249,937)
	74,368,680	**77,217,363**	**(2,848,683)**
BOG - SDC Deposit	3,473,298	2,024,365	1,448,933
BOG - SDC CDs	5,750,000	7,250,000	(1,500,000)
Total SDC	**9,223,298**	**9,274,365**	**(51,067)**
Total Restricted	**83,591,978**	**86,491,728**	**(2,899,750)**
Reserve Funds			
BOG Series 2013 Construction Fund	10,000,662	14,170,759	(4,170,098)
BOG Series 2014 Refunding Construction Fund	218,761	217,448	1,313
BOG Series 2016 Construction Fund	73,936,467	89,235,554	(15,299,086)
BOG Series 2017 Refunding Construction Fund	6,232,919	6,313,750	(80,831)
Total Restricted - Held by Trustee	**90,388,809**	**109,937,511**	**(19,548,702)**
USB Series 2013 Debt Service Fund	4,450,307	3,082,212	1,368,095
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	-
USB Series 2014 Refunding Debt Service Fund	3,779,098	1,885,637	1,893,461
USB Series 2014 Refunding Debt Service Reserve Fund	7,698,328	7,798,212	(99,884)
USB Series 2016 Debt Service Fund	2,169,228	1,946,774	222,454
USB Series 2016 Debt Service Reserve Fund	7,591,999	7,591,999	-
USB Series 2010 Debt Service Fund	1,474,952	523,353	951,599
USB Series 2017 Refunding Debt Service Reserve Fund	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	1,391,039	1,382,329	8,710
Total Investments	**48,153,099**	**43,808,664**	**4,344,435**
Total Restricted and Unrestricted Cash	**228,324,278**	**245,199,940**	**(16,875,662)**

Guam Waterworks Authority
Accounts Receivable - Government (Active)
March 31, 2020

SCHEDULE G

		AGING					
Customer Name	**No. of Accounts**	**Current**	**31 - 60 days**	**61 - 90 days**	**91 - 120 days**	**Over 120 days**	**Total**
Autonomous Agencies (Active)							
Guam Int'l Airport Authority	4	$ 39,837	$ 9,795	$ 9,305	$ 11,605	$ 232,314	$ 302,855
Guam Power Authority	24	137,408	17,102	7,254	-	-	161,764
Guam Memorial Hospital Authority	3	39,001	-	-	-	-	39,001
Guam Housing & Urban Renewal Authority	9	12,931	920	505	-	-	14,357
Port Authority of Guam	2	1,533	-	-	-	-	1,533
Guam Housing Corporation	1	34	-	-	-	-	34
Total Autonomous Agencies	**43**	**$ 230,744**	**$ 27,818**	**$ 17,064**	**$ 11,605**	**$ 232,314**	**$ 519,544**
		44.41%	**5.35%**	**3.28%**	**2.23%**	**44.71%**	**100.00%**
Dept of Education	51	311,984	199,345	222,187	-	-	$ 733,516
Dept of Parks & Recreation	16	54,259	30,730	3,884	9,738	4,031	102,642
Dept of Corrections	8	76,886	45	-	-	-	76,931
Mayors Council of Guam	52	14,408	741	383	-	43,968	59,500
Dept of Public Works	11	33,207	2,461	264	40	7,144	43,116
University of Guam	2	33,515	-	-	-	-	33,515
Dept of Public Health & Social Services	8	13,813	1,457	633	275	-	16,179
Dept of Chamorro Affairs	6	8,206	-	-	-	-	8,206
Guam Fire Department	11	4,808	1,605	-	-	-	6,413
Guam Police Department	7	6,314	-	-	-	-	6,314
Dept of Agriculture	6	5,909	-	-	-	-	5,909
Dept of Military Affairs/Guarng	1	5,464	-	-	-	-	5,464
office of The Governor	2	2,605	2,178	-	-	-	4,783
office of Technology	1	730	1,620	-	-	-	2,350
Guam Visitors Bureau	1	1,720	-	-	-	-	1,720
Dept of Youth Affairs	3	1,558	-	-	-	-	1,558
Guam Solid Waste Authority	2	1,471	-	-	-	-	1,471
office of Civil Defense	1	692	693	-	-	-	1,385
Sanctuary Inc	1	1,354	-	-	-	-	1,354
Division of Senior Citizens, Dph&Ss	2	433	470	237	114	-	1,254
Dept of Customs & Quarantine	1	408	389	-	-	-	797
Guam Veterans Affairs office	2	257	247	86	140	23	753
Guam Public Library	6	727	-	-	-	-	727
Dept of Agriculture-Fisheries	1	100	398	-	-	-	498
Dept of Retirement Funds	1	478	-	-	-	-	478
Guam Police Dept	1	324	-	133	-	-	457
Guam Legislature	4	433	-	-	-	-	433
Dept of Mental Health	2	361	-	-	-	-	361
Guam Enviromental Protection Agency	2	360	-	-	-	-	360
The office of The Dededo Mayor	1	194	-	-	-	-	194
Merizo Mayor	1	54	68	51	-	-	173
Dept of Administration	1	173	-	-	-	-	173
Guam Energy office	1	54	-	-	-	-	54
Dept of Mental Health And Substance	1	25	-	-	-	-	25
Total Line Agencies	**217**	**$ 583,283**	**$ 242,449**	**$ 227,857**	**$ 10,307**	**$ 55,166**	**$ 1,119,064**
Total as of February 29, 2020 (Active)	**260**	**$ 814,027**	**$ 270,267**	**$ 244,921**	**$ 21,912**	**$ 287,480**	**$ 1,638,607**
		49.68%	**16.49%**	**14.95%**	**1.34%**	**17.54%**	**100.00%**
Total as of September 30, 2019	**156**	**$ 573,245**	**$ 177,040**	**$ 36,359**	**$ 13,784**	**$ 390,725**	**$ 1,191,152**
	67%	**42%**	**53%**	**574%**	**59%**	**-26%**	**38%**

GUAM WATERWORKS AUTHORITY
Accounts Receivable Aging Summary by Rate Class
As of March 31, 2020

SCHEDULE H

		AGING						
Rate Class	**No. of Accounts**	**Current**	**31 - 60 days**	**61 - 90 days**	**91 - 120 days**	**Over 120 days**	**Total**	
Government	445	2,429,000	300,826	246,551	21,363	913,147	3,910,887	17%
Agriculture	387	50,307	7,410	3,618	1,579	67,661	130,575	1%
Commercial I	2,701	1,341,921	60,411	45,388	22,694	369,562	1,839,976	8%
Commercial II	25	227,145	25,991	1,351	1,349	252,319	508,155	2%
Commercial III	304	739,162	159,844	15,134	41,618	218,499	1,174,257	5%
Golf Course	16	8,344	-	-	-	-	8,344	0%
Hotel	57	2,641,609	240,110	58,736	68,224	127,415	3,136,093	14%
Irrigation	33	5,299	552	239	250	3,474	9,815	0%
Residential	50,382	4,569,289	981,738	499,920	332,240	5,334,365	11,717,551	52%
Total	**54,350**	**12,012,076**	**1,776,883**	**870,937**	**489,317**	**7,286,442**	**22,435,654**	**100%**
		54%	**8%**	**4%**	**2%**	**32%**	**100%**	

Less Allowance for Doubtful Accounts:	(8,887,543)
Net Accounts Receivable:	**13,548,112**

Days Receivables Outstanding	47

GUAM WATERWORKS AUTHORITY
Accounts Payable Aging
As of March 31, 2020

SCHEDULE I

AGING					
Current	31 - 60 Days	61 - 90 Days	91 - 120 Days	> 120 Days	**Total**
$ 2,242,281.92	$ 814,175.27	$ 76,517.64	$ 93,784.84	$ 314,008.29	**$ 3,540,767.96**
63%	23%	2%	3%	9%	**100%**

Days Payable Outstanding	37

Guam Waterworks Authority
System Development Charges Project Status
As of March 31, 2020

SCHEDULE J

Funding Summary		**Total**
Total available project funds	$	12,575,956
Total project expenditures and encumbrances		10,214,727
Total unobligated project funds	**$**	**2,361,229**

Projects Funded

Project Description	**Expenditures**	**Outstanding Encumbrances**	**Expenditures and Encumbrances**
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
	$ 3,401,012	**$ 6,813,715**	**$ 10,214,727**

Future planned projects	**FY2020**
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
	$ 1,980,000

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

SCHEDULE K

		AUDITED							UNAUDITED			
CLASS		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 (6 Mos Annualized) TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)
R	Residential	3,415,662	3,429,689	0%	3,206,811	-6%	3,313,613	3%	3,359,905	1%	3,459,872	3%
C	Commercial	1,020,089	1,022,890	0%	964,639	-6%	910,905	-6%	906,192	-1%	897,844	-1%
F	Federal	1,168	1,180	1%	2,508	113%	1,813	-28%	1,602	-12%	1,330	-17%
G	Government	515,974	475,366	-8%	448,430	-6%	450,165	0%	405,980	-10%	424,995	5%
H	Hotel	999,116	1,008,087	1%	1,004,525	0%	989,723	-1%	1,079,919	9%	978,734	-9%
G	Golf	6,850	6,770	-1%	5,252	-22%	2,741	-48%	2,793	2%	6,149	120%
A	Agriculture	67,376	78,628	17%	69,482	-12%	81,127	17%	90,803	12%	76,781	-15%
I	Irrigation	10,385	11,351	9%	10,143	-11%	8,504	-16%	7,896	-7%	6,763	-14%
	GRAND TOTAL	6,036,620	6,033,960	0%	5,711,790	-5%	5,758,590	1%	5,855,091	2%	5,852,468	0%

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. 22- FY2020
Relative to the Approval of Change Order No. 5 and Approving Additional Contingency Funds for the Route 4 Relief Sewerline Rehabilitation and Replacement Project

What is the project's objective and is it necessary and urgent?
The objective of the Route 4 Relief Sewerline Rehabilitation and Replacement Project is to install cured in place pipe (CIPP) lining in an existing sewer to rehabilitate the sewer by eliminating infiltration into the existing sewer main so that it can be placed into service and relieve excess flows in the adjacent sewer main serving Sinajana, Ordot, Chalan Pago, and nearby villages connected to the main sewer trunk line coming into Hagatna on Route 4. The CIPP work is being done under a contract with InsituForm Inc and is nearing completion.

In order to compensate InsituForm for performing unanticipated significant and excessive cleaning and to seal four sewer service lines encountered while performing work under the original scope of work in the contract, two Change Orders are needed to finish the contract work. The additional work is within the general scope of work for the contract and it is most practical and efficient to have InsituForm perform the work as an integral part of their construction. In order to have installed the CIPP liner, the additional cleaning had to be done. In order to re-connect the four unanticipated existing sewer service lines to the newly lined CIPP main to maintain service to those customers, the re-instatement of those lines is necessary and must be done at this time.

The contract contingency amount previously authorized by the CCU when the contract was awarded has been used on four Change Orders preceding the work discussed herein and consequently, the contingency amount remaining is currently insufficient to execute the two necessary Change Orders to complete the work outlined above. Additional contingency funds must be authorized by the Commission so that GWA can execute the change orders.

Where is the location?
The segments of existing sewer that required additional cleaning are on Route 4 as it approaches Route 1 and on segments on Route 1 downstream of the intersection with Route 4.
The four sewer service lines to be reinstated are on Route 1 in front of Chamorro Village and serve Chamorro Village.

How much will it cost?
Change Order 5 will cost $165,245.12 and require an additional authorization of $114,058.57 in contingency funds for the contract.

A Change Order for the service line sealing is estimated to cost $75,000. In total, these amounts sum to $189,058.57.

This Resolution requests a contingency increase in the amount of $200,000.00 to provide a modest amount in anticipation of a cost proposal from the contractor for the service line reinstatements.

When will it be completed?
Work on the additional cleaning has already been performed as it was required to advance the project and prepare for the installation of the CIPP liner. The Project Manager required the contractor to support and justify his claim for the amount of cleaning judged to be additional. Once the requisite information and data was provided and the amount negotiated, the Project Manager recommended that GWA approve the addition cleaning and cost.
The service line reinstatement will be completed soon after the cost is approved and GWA executes a Change Order for this additional work.

What is the funding source?
The funding source for the contract and for the additional contingency funds requested in this Resolution is the System Development Charge.

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. 22-FY2020

RELATIVE TO THE APPROVAL OF CHANGE ORDER NO. 5 AND APPROVING ADDITIONAL CONTINGENCY FUNDS FOR THE ROUTE 4 RELIEF SEWERLINE REHABILITATION AND REPLACEMENT PROJECT S15-006-EPA

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, the CCU approved Resolution 40-FY2017 (Exhibit A) and GWA subsequently awarded a construction contract (No. 796 OS) to InsituForm Inc. for cured in place pipe (CIPP) installation in an existing sewer main on Route 4 and Route 1 in Hagatna for the Route 4 Relief Sewerline Rehabilitation and Replacement Project (No. S15-006-EPA) in the amount of Three Million Nine Hundred Ninety Eight Thousand Six Hundred Eighty Eight Dollars ($3,998,688.00) with a ten percent (10%) contingency of Three Hundred Ninety Nine Thousand Eight Hundred Sixty Eight Dollars and Eighty Cents ($399,868.80); and

WHEREAS, the project is funded by EPA grant funds and the contingency is funded by System Development Charge funds; and

WHEREAS, there have been three Change Orders and a fourth Change Order currently in process totaling Three Hundred Forty-Eight Thousand Six Hundred Eighty-Two Dollars and Twenty-Five Cents ($348,682.25); and

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WHEREAS, there are funds remaining in the contract contingency of Fifty-One Thousand One Hundred Eighty-Six Dollars and Fifty-Five Cents ($51,186.55) (see Exhibit B); and

WHEREAS, a significant amount of debris, rocks, sand, and rubbish was encountered in the existing sewer main during the execution of the contractual scope of work by the contractor that required additional cleaning by the contractor in order to install the CIPP as required in the contract. This amount of additional cleaning was not anticipated and is considered extra work as provided for in the contract documents (see Exhibit C). The additional cost of this added scope of work is One Hundred Sixty-Five Thousand Two Hundred Forty-Five Dollars and Twelve Cents ($165,245.12) and shall be added to the InsituForm contract through Change Order 5, pending approval by GWA; and

WHEREAS, in order to execute Change Order 5, the contract contingency amount must be increased by One Hundred Fourteen Thousand Fifty-Eight Dollars and Fifty-Seven Cents (114,058.57); and

WHEREAS, it is anticipated that an additional Change Order will be required to address sealing four sewer service lines that were not included in the original contract and were discovered during the cleaning operation. The sealing is necessary to prevent inflow and infiltration under the newly applied CIPP. A cost proposal is anticipated to be submitted soon and is expected to be approximately Seventy-Five Thousand Dollars ($75,000); and

WHEREAS, sealing of the four sewer service lines is the last remaining work to be done under the referenced contract with InsituForm; and

WHEREAS, GWA will negotiate fees with InsituForm to ensure that necessary costs are justifiable and reasonable; and

WHEREAS, there are sufficient SDC funds to fund Change Order 5 and a subsequent Change Order to address the sealing of four sewer service lines;

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 additional contingency funds in the amount of Two Hundred Thousand Dollars ($200,000.00) are needed, warranted, and justified to complete work under the contract referenced herein.
3. The CCU hereby authorizes the expenditure of up to an additional Two Hundred Thousand Dollars ($200,000.00) for Change Order 5 and anticipated Change Order 6 under the subject contract and project.
4. The CCU hereby further authorizes the management of GWA to execute Change Order 5 (Exhibit C) and a subsequent Change Order for sealing four sewer service lines.

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

DULY AND REGULARLY ADOPTED, this 28th day of April 2020.

Certified by:	Attested by:
_____	_____
JOSEPH T. DUENAS	**MICHAEL T. LIMTIACO**
Chairperson	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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Exhibit A

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

RESOLUTION NO. 40–FY2018

RELATIVE TO CONTRACTS APPROVAL FOR THE ROUTE 4 RELIEF SEWER LINE REHABILITATION AND REPLACEMENT PROJECT S15-006-EPA

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 has received a grant from USEPA under the State Revolving Fund program to improve the sewer collection system, which included over 4,200 linear feet of gravity sewer line along Route 4 from the bottom of the hill in Agana to Route 1, and along Route 1 to the Agana Main Pump Station; and

WHEREAS, the gravity sewer line noted above has a section that has been inactive since its original installation due to incomplete construction work, and sections that are in need of repair due to high infiltration and inflow (I/I), and the intent of this project is to rehabilitate, repair or replace these sections along with associated roadway surface improvements; and

WHEREAS, GWA and USEPA agree that efforts to rehabilitate, repair or replace these sewer lines are necessary to provide sufficient capacity, and properly maintain and operate the sewer collection system, and the first step in doing so is through scope of services that includes general civil engineering, geotechnical engineering, and archeological investigation for wastewater collection system evaluation, analysis and design; and

WHEREAS, in July 2015 GWA Management began the procurement process to find a consulting engineering team to design the sewer rehabilitation and replacement, and via Resolution No. 16-FY2016, approved by the CCU in January 2016, GWA Management was authorized to enter into a contract with AECOM to design the sewer rehabilitation and replacement; and

WHEREAS, in February of 2016 GWA Management entered into a contract with AECOM to design the sewer rehabilitation and replacement, and in May of 2017 the final design was completed; and

WHEREAS, on August 25, 2017, GWA advertised the Invitation to Bid (IFB-10-ENG-2017) for the Route 4 Relief 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 subjected to I&I in the village of Hagatna, but ultimately GWA received no bids at that time; and

WHEREAS, following the initial Invitation to Bid, GWA discussed with contractors the challenges that may have prevented them from bidding, reviewed all the available information, and split the contract into two separate parts, a Schedule A and a Schedule B; and

WHEREAS, on March 23, 2018, GWA advertised another Invitation to Bid (IFB-04-ENG-2018) for the Route 4 Relief 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 subjected to I&I in the village of Hagatna; and

WHEREAS, this project consists of furnishing all labor, tools, equipment and materials, necessary to install, replace, and repair sewer along Rt.4 and Rt.1, including coordination with GWA Wastewater Operations, GWA Engineering, the Construction Manager, the project Design Engineer, GWA's Program Management Office and the Department of Public Works; and

WHEREAS, IFB packages were obtained by multiple interested parties, from which GWA received bid proposals from three (3) parties (SEE EXHIBIT A – Abstract of Bids) before

the bid proposal deadline, with one (1) party submitting a proposal for only Schedule A, one (1) party submitting a proposal for only Schedule B, and one (1) party submitting a proposal for both Schedule A and B; and

WHEREAS, the project Design Engineer, in conjunction with GWA, analyzed the bid proposals received (SEE EXHIBIT B – Evaluation) on June 8, 2018 and determined that the bid proposal submitted by ProPacific Builder Corporation (PPBC) (SEE EXHIBIT C – ProPacific Bid) for Schedule A, and the bid proposal submitted by Insituform Technologies, LLC (Insituform) (SEE EXHIBIT D – Insituform Bid) for Schedule B, were the lowest responsive and responsible bids and met all the bid requirements set forth by GWA; and

WHEREAS, GWA Management finds both PPBC's bid proposal for Schedule A, and Insituform's bid proposal for Schedule B acceptable; and

WHEREAS, for Schedule A, PPBC's bid proposal in the amount of Three Million Four Hundred Seven Thousand Eight Hundred Forty-Eight Dollars ($3,407,848.00), plus a ten percent (10%) contingency of Three Hundred Forty Thousand Seven Hundred Eighty-Four Dollars and Eighty Cents ($340,784.80) to bring the authorized funding amount for Schedule A to a total of Three Million Seven Hundred Forty-Eight Thousand Six Hundred Thirty-Two Dollars and Eighty Cents ($3,748,632.80); and

WHEREAS, for Schedule B, Insituform's bid proposal in the amount of Three Million Nine Hundred Ninety-Eight Thousand Six Hundred Eighty-Eight Dollars ($3,998,688.00), plus a ten percent (10%) contingency of Three Hundred Ninety-Nine Thousand Eight Hundred Sixty-Eight Dollars and Eighty Cents ($399,868.80) to bring the authorized funding amount for Schedule B to a total of Four Million Three Hundred Ninety-Eight Thousand Five Hundred Fifty-Six Dollars and Eighty Cents ($4,398,556.80); and

WHEREAS, GWA Management seeks CCU approval of PPBC's bid proposal plus the 10% contingency for Schedule A of Three Million Seven Hundred Forty-Eight Thousand Six Hundred Thirty-Two Dollars and Eighty Cents ($3,748,632.80), and Insituform's bid proposal plus contingency for Schedule B of Four Million Three Hundred Ninety-Eight Thousand Five

Hundred Fifty-Six Dollars and Eighty Cents ($4,398,556.80), to bring the total authorized funding amount to Eight Million One Hundred Forty-Seven Thousand One Hundred Eighty-Nine Dollars and Sixty Cents ($8,147,189.60); and

WHEREAS, funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds and System Development Charge funds applicable to the project intent; 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 finds that the terms and conditions set by GWA relative to commencement of work activities are fair and reasonable and serve as a measure of Quality Assurance/Quality Control (QA/QC).
3. The CCU hereby authorizes the management of GWA to accept the bid proposals from "ProPacific Builder Corporation" and "Insituform Technologies, LLC." (EXHIBITS C and D)
4. The CCU hereby further authorizes the management of GWA to enter into a contract with "ProPacific Builder Corporation" in the amount of Three Million Four Hundred Seven Thousand Eight Hundred Forty-Eight Dollars ($3,407,848.00).
5. The CCU hereby further authorizes the management of GWA to enter into a contract with "Insituform Technologies, LLC" in the amount of Three Million Nine Hundred Ninety-Eight Thousand Six Hundred Eighty-Eight Dollars ($3,998,688.00).
6. The CCU hereby further approves the funding total for Schedule A of Three Million Four Hundred Seven Thousand Eight Hundred Forty-Eight Dollars ($3,407,848.00), plus a ten percent (10%) contingency of Three Hundred Forty Thousand Seven Hundred Eighty-Four Dollars and Eighty Cents ($340,784.80), and for Schedule B of Three Million Nine Hundred Ninety-Eight Thousand Six Hundred Eighty-Eight Dollars ($3,998,688.00), plus a ten percent (10%) contingency of Three Hundred Ninety-Nine Thousand Eight Hundred Sixty-Eight

Dollars and Eighty Cents ($399,868.80), for a total authorized funding amount of Eight Million One Hundred Forty-Seven Thousand One Hundred Eighty-Nine Dollars and Sixty Cents ($8,147,189.60).

7. The CCU hereby further approves the funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds and System Development Charge Funds applicable to the project.
8. In the event funds other than SRF are used and they exceed One Million Dollars ($1,000,000.00), GWA is authorized to petition the PUC for approval.

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

DULY AND REGULARLY ADOPTED, this 24th day of July 2018.

Certified by:

JOSEPH T. DUENAS
Chairperson

Attested by:

J. GEORGE BAMBA
Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, 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: 5

NAYS: 0

ABSTENTIONS: 0

ABSENT: 0

GUAM WATERWORKS AUTHORITY
ABSTRACT OF BIDS

Exhibit A (1 of 1)

ORIGINAL

Project Name: ROUTE 4 RELIEF SEWERLINE REHABILITATION AND REPLACEMENT (RE-BID)

Bid Opening Date: May 29, 2018
Time: 3:00 PM

Project Number: S15-006-EPA IFB NO.: IFB-04-ENG-2018

	Qualified Bidders Name	Section A-5 Bid Bond	CERTIFICATIONS												SCHEDULE A		SCHEDULE B		
											Addendum								
			GS	NCA	EEO	NSF	SOC	WBO	MSA	SIB	1	2	3	4	BASE BID	ADDITIVE BID	BASE BID	ADDITIVE BID NO. 1	ADDITIVE BID NO. 2
1.	PRO PACIFIC BUILDER CORP.	Endurance Insurance Corporation 15% of total bid amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$3,407,648.00	$150,080.00	no bid submitted	no bid submitted	no bid submitted
2.	CANTON CONSTRUCTION CORP.	no bid submitted																	
3.	GIANT CONSTRUCTION CORP.	no bid submitted																	
4.	INSITUFORM	Travelers Casualty & Surety Company 15% of bid amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	no bid submitted	no bid submitted	$3,998,188.00	$1,246,740.00 ~~$5,245,168.00~~	$35,877.00 ~~$5,210,248.00~~
5.	GRANITE CONSTRUCTION COMPANY	no bid submitted																	
6.	INFRATECH INT'L. LLC	no bid submitted																	
7.	CHI CONSTRUCTION INC.	no bid submitted																	
8.	HES MICRONESIA	no bid submitted																	
9.	CORE TECH/HDCC GUAM, LLC	Fidelity & Deposit Company of Maryland 15% of bid amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$6,191,466.28	$20,592.67	$7,570,573.71	$749,518.94	$20,583.15
10.	BME & SONS	no bid submitted																	
	GWA Estimate																		

Bids Opened and Read by: GLORIA O. BENSAN (Name and Signature)

Tabulated By: Nicole Quan (Name and Signature)

GWA Procurement Representative: Victoria Hancock (Name and Signature)

Witnesses: BMOCO, Joseph Tayan, EMPS Co., PPBC, CTI, CHL

AECOM

AECOM
414 W. Soledad Avenue
Suite 708
Hagåtña, GU 96932
www.aecom.com

671 477 8326/7 tel
671 472 8324 fax

Exhibit B (1 of 1)

June 8, 2018

The Guam Waterworks Authority
Thomas F. Cruz, P.E., Chief Engineer
Engineering Division
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, GU 96913

Subject: Bid Review and Recommendation for the Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-bid) Project, GWA Project No. S15-006-EPA, IFB No. IFB-04-ENG-2018.

Håfa Adai Tom,

The bids for this project were opened on May 29, 2018. Out of 10 bidders who expressed interest in the project, only 3 bid proposals were received and included ProPacific Builder Corporation (ProPacific), Insituform Technologies, LLC (Insituform), and Core Tech/Hawaiian Dredging, LLC (CHL). Pro Pacific submitted a bid for only Schedule A. Insituform submitted a bid for only Schedule B. CHL submitted a bid for both schedules. A summary of the bids prices along with the Engineer's Opinion of Construction Cost Estimate are provided in the table below.

Bid Schedule	Engineer's Estimate	ProPacific	Insituform	CHL
SCHEDULE A - Base Bid	$ 2,701,217.00	$ 3,407,848.00	No Bid	$ 6,191,463.33
SCHEDULE A – Additive Bid No. 1	$ 7,000.00	$ 150,000.00	No Bid	$ 20,592.67
SCHEDULE A – Total	$ 2,708,217.00	$ 3,557,848.00	No Bid	$ 6,212,056.00
SCHEDULE B - Base Bid	$ 2,482,494.00	No Bid	$ 3,998,688.00	$ 7,570,573.65
SCHEDULE B – Additive Bid No. 1	$ 62,880.00	No Bid	$ 1,296,700.00	$ 799,818.94
SCHEDULE B – Additive Bid No. 2	$ 7,000.00	No Bid	$ 35,000.00	$ 20,583.15
SCHEDULE B – Total	$ 2,552,374.00	No Bid	$ 5,330,388.00	$ 8,390,975.74

It is understood that the bids are to be evaluated by each schedule separately and contract(s) awarded using the Base Bid. After contract award, GWA may consider adding items in the additive bids into the contract by change orders. If the bid is within the amount of funds available to finance the construction Contract, then the award will be made to the lowest responsive and responsible bidder. In the event all bids exceed the available budget, GWA may reject bids by individual line items until the individual line items fit within the available budget.

AECOM conducted an evaluation of the bids received and provide recommendations for award to the responsible Bidder submitting the lowest responsive Bid. The following is a brief summary of the bid evaluation:

- Overall, the CHL bid prices appeared to be excessive in comparison with the other bidders and the Engineer's Estimate for both bid schedules evaluated separately.
- For Schedule A – Base Bid, ProPacific's bid price was approximately 26% more than the Engineer's Estimate and is the lowest responsive bid. ProPacific's total bid including the bid additive was approximately 31% more than the Engineer's Estimate.
- For Schedule B – Base Bid, Insituform's bid price was approximately 61% more than the Engineer's Estimate and is the lowest responsive bid. Insituform's total bid including the bid additives was approximately double the Engineer's Estimate.

Based on the bid evaluation conducted, it is recommended that ProPacific be awarded a construction contract for Schedule A – Base Bid and Insituform be awarded a separate construction contract for Schedule B – Base Bid. It is also recommended that if needed, GWA can consider rejecting individual line items to fit within the available budget; particularly for all the bid additives.

Respectfully,

Agapito (Pete) Diaz, PE
Project Manager
671-477-8326/7
pete.diaz@aecom.com

Exhibit C (1 of 15)

GUAM WATERWORKS AUTHORITY

BID INVITATION NO. IFB-04-ENG-2018 GWA Project No.: S15-006-EPA

Route 4 Relief Sewer Line Rehabilitation and Replacement

BID PROPOSAL

Submitted by:

PROPACIFIC BUILDER CORPORATION
(formerly Guam Yooshin Corporation)
750 Route 8 Suite 202 Hanam Plaza,
Barrigada, Guam 96913
T. 671.477.3109 | F. 671.477.7424 | jgyc@guam.net

Exhibit C (2 of 15)

Procurement Checklist

CHECKLIST OF FORMS AND DOCUMENTS REQUIRED TO BE SUBMITTED IN CONJUNCTION WITH BIDS

A.	Form or document that must be submitted with bid	Initial if Submitted:
1.	Bid Bond Equal to 15% of total amount of bid	
2.	Bidder Qualification Form	
3.	Bid Proposal and Bid Schedule	
4.	Non-Collusion Affidavit	
5.	Certification of Bidder Regarding Equal Employment Opportunity	
6.	Certification Regarding Non-Segregated Facilities	
7.	Sex Offender Certification	
8.	Wage and Benefit Determination	
9.	Major Shareholders Disclosure Affidavit	
10.	Special Instructions to Bidders	
11.	Proof of Licensure to Perform Work Called For by the Bid	
12.	Financial Statements	
13.	Proof of Status as Veteran (if applies)	N/A
14.	Forms or Documents Required by Bid or Bid Amendments not referred to above	

I, Jean Yeon Yu, a duly authorized representative of PPBC, do hereby certify, that the forms list above have in fact been submitted with my firm's bid. I acknowledge that, failure to submit any of the above documents will result in my firm being deemed non-responsive and having my firm's bid rejected.

Signed: _____

Date: 05/29/2018

Exhibit C (3 of 15)

BID FORM

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

Guam Waterworks Authority
Engineering Division, Room 202
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Buyer in the form included in the Bidding Documents to furnish the Goods and Special Services as specified or indicated in the Bidding Documents, for the prices and within the times indicated in this Bid, and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Buyer.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date
Addendum No. 1	April 19, 2018
Addendum No. 2	April 26, 2018
Addendum No. 3	May 15, 2018
Addendum No. 4	May 18, 2018

B. Bidder has visited the Point of Destination and site where the Goods are to be installed or Special Services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, or the furnishing of Goods and Special Services, if required to do so by the Bidding Documents, or if, in Bidder's judgment, any local condition may affect cost, progress, or the furnishing of Goods and Special Services.

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C. Bidder is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the Bid that may affect cost, progress, and the furnishing of Goods and Special Services.

D. Bidder has carefully studied, considered, and correlated the information known to Bidder; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Bidder's visits, if any, to the Point of Destination and the site where the Goods will be installed or Special Services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Bidding Documents.

E. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution (if any) thereof by Engineer is acceptable to Bidder.

F. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the Goods and Special Services for which this Bid is submitted.

ARTICLE 4 - BIDDER'S CERTIFICATIONS

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Buyer, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

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4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process.

ARTICLE 5 - BASIS OF BID AND AWARD OF CONTRACTS

5.01 This contract is a multi-award contract through which more than one contract may be awarded through this solicitation. The Bid Schedule contains two schedules, Schedule A and Schedule B. Bidder will furnish the Goods and Special Services in accordance with the Contract Documents for the prices indicated under this article. The Bidder can elect to provide prices under Schedule A or Schedule B or both schedules. Bids must include all items under Schedule A or Schedule B, or both Schedule A and B. Each of Schedules A and B comprise Base Bid items and Additive Bid items. The Bidder shall provide base bid and additive bid(s) prices under each elected schedule.

Bids shall be evaluated by Schedule. Each of Schedules A and B shall be evaluated separately. The lowest responsive and responsible bidder shall be determined for each of Schedule A and Schedule B. Separate contracts will be awarded under Schedule A and Schedule B. One contract will be awarded to the lowest responsive and responsible bidder for Schedule A and one contract will be awarded to the lowest responsive and responsible bidder for Schedule B. If the same contractor is the lowest responsive and responsible bidder for both Schedules A and B, one contract for all the work under Schedules A and B will be awarded.

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Exhibit C (6 of 15)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Base Bid

Description of Work: Work consists of replacing 24" Spirolite pipe with 30" PVC pipe, installation of new 18" PVC pipe intertie, construction of precast concrete manholes, sewer manhole rehabilitation with epoxy coating, channel construction, disconnection and re-connection of lateral sewer pipes, abandoning existing sewer pipes and providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				SCHEDULE A – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
1	Mobilization and Demobilization	LS	$293,780.00	1	$ 293,780.00
2	Insurance and Bonds	LS	$132,201.00	1	$ 132,201.00
3	Permits	LS	$44,067.00	1	$ 44,067.00
4	12" PVC pipe, installed by open trench, including PVC pipe, fittings, warning/identification tape, cleaning, connections to manholes, adjustment existing channel and bench, testing, and all incidentals, in place complete.	LF	$1,500.00	22	$ 33,000.00
5	18" PVC pipe, installed by open trench, including PVC pipe, fittings, warning/identification tape, cleaning, connections to existing manholes, adjustment existing channel and bench, testing, and all incidentals, in place complete.	LF	$1,800.00	12	$ 21,600.00
6	30" PVC pipe, installed by open trench, including existing pipe removal, pipe, fittings, warning/identification tape, cleaning, manhole connections, testing, and all incidentals, in place complete.	LF	$2,000.00	461	$ 922,000.00
7	Unclassified Trench Excavation and Backfill, including protection of existing utilities if necessary, excavation, installation of sheet piles, cutting and removal of sheet piles, shoring, groundwater cutoff wall, dewatering and dewatering effluent disposal, muck handling and disposal, backfill, pipe bedding, CLSM, temporary erosion control measures, traffic control work, miscellaneous restoration work, and all incidentals required to complete the work.	CY	$600.00	913	$ 547,800.00
8	Precast Sewer Manhole, SMH-6901A and 493A, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment ring(s), frame and cover, epoxy-coating, channelized inverts, testing, CLSM, temporary erosion control measures, traffic control work, incidentals, and all necessary labor, materials and equipment, in place complete.	EA	$30,000.00	2	$ 60,000.00

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Exhibit C (7 of 15)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Base Bid

Description of Work: Work consists of replacing 24" Spirolite pipe with 30" PVC pipe, installation of new 18" PVC pipe intertie, construction of precast concrete manholes, sewer manhole rehabilitation with epoxy coating, channel construction, disconnection and re-connection of lateral sewer pipes, abandoning existing sewer pipes and providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				SCHEDULE A – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
9	Drop Precast Sewer Manhole, SMH-6908B, including demolition of existing SMH-10312, reinforced concrete base, precast concrete riser and cone, chimney, flexible pipe seals and connectors, grade adjustment ring(s), frame and cover, epoxy-coating, channelized inverts, testing, CLSM, temporary erosion control measures, traffic control work, incidentals, and all necessary labor, materials and equipment, in place complete.	EA	$ 30,000.00	1	$ 30,000.00
10	Rehabilitation of sewer manhole with epoxy coating, including cleaning, surface preparation, cementitious underlayment, concrete channel and bench construction, existing pipe cut & connection, plugging existing pipe, epoxy topcoat, grout injection for leak repair, traffic control work, and all incidentals, in place complete.	EA	$ 22,500.00	14	$ 315,000.00
11	Abandon existing sewer pipes including plugging and filling with CLSM, all incidentals, in place complete.	LF	$ 250.00	280	$ 70,000.00
12	Unplug 21" existing pipe, plug 15" existing SL-9650 and channel & bench reconstruction at SMH-6897	LS	$ 30,000.00	1	$ 30,000.00
13	Sewer Flow Control, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent asphalt concrete (AC) pavement, muck handling and disposal), electrical and standby power/pumps, monitoring, spill containment/mitigation, traffic control work, temporary erosion control measures, all related restoration work, in place complete.	LS	$ 300,000.00	1	$ 300,000.00
14	Removal of existing pavement including all necessary labor, materials and equipment, in place complete	SY	$ 50.00	2,867	$ 143,350.00

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Exhibit C (8 of 15)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Base Bid

Description of Work: Work consists of replacing 24" Spirolite pipe with 30" PVC pipe, installation of new 18" PVC pipe intertie, construction of precast concrete manholes, sewer manhole rehabilitation with epoxy coating, channel construction, disconnection and re-connection of lateral sewer pipes, abandoning existing sewer pipes and providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

					SCHEDULE A – Base Bid
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
15	AC Pavement Resurfacing, including asphalt concrete base, cold planing, pavement transitions, prime coat, tack coat, traffic striping, miscellaneous restoration, and all necessary labor, materials and equipment, in place complete	SY	$ 150.00	2,867	$ 430,050.00
16	Pavement marking including all necessary labor, materials and equipment, in place complete	LS	$25,000.00	1	$ 25,000.00
17	As-Built drawings	LS	$10,000.00	1	$ 10,000.00
				SCHEDULE A – Base Bid (TOTAL Items 1 through 17, inclusive)	$ 3,407,848.00

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Additive Bid No. 1

Description of Work: Archaeological monitoring.

					SCHEDULE A – Additive Bid No. 1
1	Archaeological and cultural resource services to add new laydown staging areas outside of the suggested areas or outside of the area of potential effect as defined the Archaeological Monitoring and Data Recovery Plan for the project and resubmit to the Department of Parks and Recreation, Guam Historic Resources Division/State Historic Preservation Office for approval and acceptance.	LS	$ 150,000.00	1	$ 150,000.00
				SCHEDULE A - Additive Bid No. 1 (TOTAL Items 1, inclusive)	$ 150,000.00

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Exhibit C (9 of 15)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B –Base Bid

Description of Work: CIPP lining 21", 24", 30" and 36" existing sewer pipes, providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				Schedule B – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
1	Mobilization and Demobilization	LS	$_____	1	$_____
2	Insurance and Bonds	LS	$_____	1	$_____
3	Permits	LS	$_____	1	$_____
4	Installation of cured in place pipe (CIPP) lining in existing 21" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$_____	674	$_____
5	Installation of cured in place pipe (CIPP) lining in existing 24" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$_____	723	$_____

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Exhibit C (10 of 15)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B –Base Bid

Description of Work: CIPP lining 21", 24", 30" and 36" existing sewer pipes, providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				Schedule B – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
6	Installation of cured in place pipe (CIPP) lining in existing 30" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$_____	1,590	$_____
7	Installation of cured in place pipe (CIPP) lining in existing 36" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$_____	798	$_____
8	Sewer Flow Control, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement, muck handling and disposal), electrical and standby power/pumps, monitoring, spill containment/mitigation, traffic control work, temporary erosion control measures, all related restoration work, in place complete.	LS	$_____	1	$_____

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Exhibit C (11 of 15)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B –Base Bid

Description of Work: CIPP lining 21", 24", 30" and 36" existing sewer pipes, providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				Schedule B – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
			Schedule B – BASE BID (TOTAL Items 1 through 8, inclusive)		$_____

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B – Additive Bid No. 1

Description of Work: CIPP part-liner or chemical grouting to control infiltration/inflow prior to CIPP lining.

				Schedule B – Additive Bid No. 1	
1	CIPP part-liner or grouting to control infiltration on the existing 21" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$_____	70	$_____
2	CIPP part-liner or grouting to control infiltration on the existing 24" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$_____	80	$_____
3	CIPP part-liner or grouting to control infiltration on the existing 30" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$_____	160	$_____
4	CIPP part-liner or grouting to control infiltration on the existing 36" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$_____	160	$_____
			SCHEDULE B – Additive Bid No. 1 (TOTAL Items 1 through 4, inclusive)		$_____

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Exhibit C (12 of 15)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B - Additive Bid No. 2
Description of Work: Archaeological monitoring.

					SCHEDULE B – Additive Bid No. 2
1	Archaeological and cultural resource services to add new laydown staging areas outside of the suggested areas or outside of the area of potential effect as defined the Archaeological Monitoring and Data Recovery Plan for the project and resubmit to the Department of Parks and Recreation, Guam Historic Resources Division/State Historic Preservation Office for approval and acceptance.	LS	$_____	1	$_____
				SCHEDULE B - Additive Bid No. 2 (TOTAL Items 1, inclusive)	$_____

Bidder acknowledges that estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents. Bidder also acknowledges that each unit price includes an amount considered by Bidder to be adequate to cover Bidder's overhead and profit for each separately identified item.

ARTICLE 6 - TIME OF COMPLETION

6.01 Bidder agrees that the furnishing of Goods and Special Services will conform to the schedule set forth in Article 5 of the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 - ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

A. Required Bid security in the form of Bid Bond.

B. List of Proposed Major Suppliers;

C. Required Bidder Qualification Statement with Supporting Data.

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

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Exhibit C (13 of 15)

ARTICLE 9 - BID SUBMITTAL

9.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

Business address: _____

_____

Phone: _____ Facsimile: _____

E-mail address: _____ _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner - attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

_____

Phone: _____ Facsimile: _____

E-mail address: _____

A Corporation

Corporation Name: PROPACIFIC BUILDER CORPORATION

State of Incorporation: GUAM

Type (General Business, Professional, Service, other): General Contractor

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): Jean Yeon Yu

Title: President

(CORPORATE SEAL)

Attest _____
(Signature of Corporate Secretary)

Business address: 750 Route 8 Suite 202 Hanam Plaza, Barrigada, GU 96913

_____

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
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Exhibit C (14 of 15)

Phone: 671-477-3109 Facsimile: 671-477-7424
E-mail address: jgyc@guam.net

A Limited Liability Company (LLC)

LLC Name: _____
State in which organized: _____

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____
Title: _____
Business address: _____
_____
Phone: _____ Facsimile: _____
E-mail address: _____

A Joint Venture

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____
Title: _____
Business address: _____
_____
Phone: _____ Facsimile: _____
E-mail address: _____
Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____
Title: _____
Business address: _____
_____
Phone: _____ Facsimile: _____
E-mail address: _____

Phone and Facsimile Number, and Address for receipt of official communications to Joint Venture: __
_____
_____

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Exhibit C (15 of 15)

(Each joint venturer must sign. The manner of signing for each individual, partnership, corporation, and limited liability company that is a party to the joint venture should be in the manner indicated above.)

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Exhibit D (1 of 17)

AEGION
Stronger. Safer. Infrastructure.
Insituform

SEALED BID FOR: ROUTE 4 RELIEF SEWER LINE REHABILITATION AND REPLACEMENT (RE-BID)

BIDDER: INSITUFORM TECHNOLOGIES, LLC
17988 EDISON AVE
CHESTERFIELD, MO 63005

GWA PROJECT NO. S15-006-EPA

CLOSING DATE AND TIME
~~5/25/2018~~ 5/29/2018
3:00 PM

ATTENTION: GUAM WATERWORKS AUTHORITY
GLORIA B. NELSON PUBLIC SERVICES BUILDING
688 ROUTE 15
MANGILAO, GUAM 96913

Vol. 1 of 2

Exhibit D (2 of 17)

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Exhibit D (3 of 17)

BID FORM

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

Guam Waterworks Authority
Engineering Division, Room 202
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Buyer in the form included in the Bidding Documents to furnish the Goods and Special Services as specified or indicated in the Bidding Documents, for the prices and within the times indicated in this Bid, and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Buyer.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date
1	April 19, 2018
2	April 24, 2018
3	May 15, 2018
4	May 18, 2018

B. Bidder has visited the Point of Destination and site where the Goods are to be installed or Special Services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, or the furnishing of Goods and Special Services, if required to do so by the Bidding Documents, or if, in Bidder's judgment, any local condition may affect cost, progress, or the furnishing of Goods and Special Services.

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C. Bidder is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the Bid that may affect cost, progress, and the furnishing of Goods and Special Services.

D. Bidder has carefully studied, considered, and correlated the information known to Bidder; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Bidder's visits, if any, to the Point of Destination and the site where the Goods will be installed or Special Services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Bidding Documents.

E. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution (if any) thereof by Engineer is acceptable to Bidder.

F. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the Goods and Special Services for which this Bid is submitted.

ARTICLE 4 - BIDDER'S CERTIFICATIONS

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Buyer, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

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Exhibit D (5 of 17)

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process.

ARTICLE 5 - BASIS OF BID AND AWARD OF CONTRACTS

5.01 This contract is a multi-award contract through which more than one contract may be awarded through this solicitation. The Bid Schedule contains two schedules, Schedule A and Schedule B. Bidder will furnish the Goods and Special Services in accordance with the Contract Documents for the prices indicated under this article. The Bidder can elect to provide prices under Schedule A or Schedule B or both schedules. Bids must include all items under Schedule A or Schedule B, or both Schedule A and B. Each of Schedules A and B comprise Base Bid items and Additive Bid items. The Bidder shall provide base bid and additive bid(s) prices under each elected schedule.

Bids shall be evaluated by Schedule. Each of Schedules A and B shall be evaluated separately. The lowest responsive and responsible bidder shall be determined for each of Schedule A and Schedule B. Separate contracts will be awarded under Schedule A and Schedule B. One contract will be awarded to the lowest responsive and responsible bidder for Schedule A and one contract will be awarded to the lowest responsive and responsible bidder for Schedule B. If the same contractor is the lowest responsive and responsible bidder for both Schedules A and B, one contract for all the work under Schedules A and B will be awarded.

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Exhibit D (6 of 17)

No bid on Schedule A

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Base Bid

Description of Work: Work consists of replacing 24" Spirolite pipe with 30" PVC pipe, installation of new 18" PVC pipe intertie, construction of precast concrete manholes, sewer manhole rehabilitation with epoxy coating, channel construction, disconnection and re-connection of lateral sewer pipes, abandoning existing sewer pipes and providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				SCHEDULE A – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
1	Mobilization and Demobilization	LS	$_____	1	$_____
2	Insurance and Bonds	LS	$_____	1	$_____
3	Permits	LS	$_____	1	$_____
4	12" PVC pipe, installed by open trench, including PVC pipe, fittings, warning/identification tape, cleaning, connections to manholes, adjustment existing channel and bench, testing, and all incidentals, in place complete.	LF	$_____	22	$_____
5	18" PVC pipe, installed by open trench, including PVC pipe, fittings, warning/identification tape, cleaning, connections to existing manholes, adjustment existing channel and bench, testing, and all incidentals, in place complete.	LF	$_____	12	$_____
6	30" PVC pipe, installed by open trench, including existing pipe removal, pipe, fittings, warning/identification tape, cleaning, manhole connections, testing, and all incidentals, in place complete.	LF	$_____	461	$_____
7	Unclassified Trench Excavation and Backfill, including protection of existing utilities if necessary, excavation, installation of sheet piles, cutting and removal of sheet piles, shoring, groundwater cutoff wall, dewatering and dewatering effluent disposal, muck handling and disposal, backfill, pipe bedding, CLSM, temporary erosion control measures, traffic control work, miscellaneous restoration work, and all incidentals required to complete the work.	CY	$_____	913	$_____
8	Precast Sewer Manhole, SMH-6901A and 493A, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment ring(s), frame and cover, epoxy-coating, channelized inverts, testing, CLSM, temporary erosion control measures, traffic control work, incidentals, and all necessary labor, materials and equipment, in place complete.	EA	$_____	2	$_____

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Exhibit D (7 of 17)

No bid on Schedule A

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Base Bid

Description of Work: Work consists of replacing 24" Spirolite pipe with 30" PVC pipe, installation of new 18" PVC pipe intertie, construction of precast concrete manholes, sewer manhole rehabilitation with epoxy coating, channel construction, disconnection and re-connection of lateral sewer pipes, abandoning existing sewer pipes and providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				SCHEDULE A – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
9	Drop Precast Sewer Manhole, SMH-6908B, including demolition of existing SMH-10312, reinforced concrete base, precast concrete riser and cone, chimney, flexible pipe seals and connectors, grade adjustment ring(s), frame and cover, epoxy-coating, channelized inverts, testing, CLSM, temporary erosion control measures, traffic control work, incidentals, and all necessary labor, materials and equipment, in place complete.	EA	$_____	1	$_____
10	Rehabilitation of sewer manhole with epoxy coating, including cleaning, surface preparation, cementitious underlayment, concrete channel and bench construction, existing pipe cut & connection, plugging existing pipe, epoxy topcoat, grout injection for leak repair, traffic control work, and all incidentals, in place complete.	EA	$_____	14	$_____
11	Abandon existing sewer pipes including plugging and filling with CLSM, all incidentals, in place complete.	LF	$_____	280	$_____
12	Unplug 21" existing pipe, plug 15" existing SL-9650 and channel & bench reconstruction at SMH-6897	LS	$_____	1	$_____
13	Sewer Flow Control, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent asphalt concrete (AC) pavement, muck handling and disposal), electrical and standby power/pumps, monitoring, spill containment/mitigation, traffic control work, temporary erosion control measures, all related restoration work, in place complete.	LS	$_____	1	$_____
14	Removal of existing pavement including all necessary labor, materials and equipment, in place complete	SY	$_____	2,867	$_____

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Exhibit D (8 of 17)

No Bid Schedule A

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Base Bid

Description of Work: Work consists of replacing 24" Spirolite pipe with 30" PVC pipe, installation of new 18" PVC pipe intertie, construction of precast concrete manholes, sewer manhole rehabilitation with epoxy coating, channel construction, disconnection and re-connection of lateral sewer pipes, abandoning existing sewer pipes and providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				SCHEDULE A – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
15	AC Pavement Resurfacing, including asphalt concrete base, cold planing, pavement transitions, prime coat, tack coat, traffic striping, miscellaneous restoration, and all necessary labor, materials and equipment, in place complete	SY	$_____	2,867	$_____
16	Pavement marking including all necessary labor, materials and equipment, in place complete	LS		1	
17	As-Built drawings	LS		1	
				SCHEDULE A – Base Bid (TOTAL Items 1 through 17, inclusive)	$_____

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE A – Additive Bid No. 1

Description of Work: Archaeological monitoring.

				SCHEDULE A – Additive Bid No. 1	
1	Archaeological and cultural resource services to add new laydown staging areas outside of the suggested areas or outside of the area of potential effect as defined the Archaeological Monitoring and Data Recovery Plan for the project and resubmit to the Department of Parks and Recreation, Guam Historic Resources Division/State Historic Preservation Office for approval and acceptance.	LS	$_____	1	$_____
				SCHEDULE A - Additive Bid No. 1 (TOTAL Items 1, inclusive)	$_____

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Exhibit D (9 of 17)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B –Base Bid

Description of Work: CIPP lining 21", 24", 30" and 36" existing sewer pipes, providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				Schedule B – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
1	Mobilization and Demobilization	LS	$800,000	1	$800,000
2	Insurance and Bonds	LS	$100,000	1	$100,000
3	Permits	LS	$34,300	1	$34,300
4	Installation of cured in place pipe (CIPP) lining in existing 21" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$310.00	674	$208,940
5	Installation of cured in place pipe (CIPP) lining in existing 24" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$412.00	723	$297 876

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Exhibit D (10 of 17)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B –Base Bid

Description of Work: CIPP lining 21", 24", 30" and 36" existing sewer pipes, providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				Schedule B – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
6	Installation of cured in place pipe (CIPP) lining in existing 30" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$ 667.00	1,590	$ 1,060,530
7	Installation of cured in place pipe (CIPP) lining in existing 36" sewer line, including all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the liner, cleaning, wet out, preparation, leak repair, transition sections, removal and restoration of sewer manhole cone (if required for access), restoration of pavement and landscaping, removal of protruding laterals, liner termination at manholes, reworking manhole inverts and benches, testing of installed liner, Closed Circuit Television (CCTV) inspection for pre- and post- rehabilitation, traffic control work, and for all other related work.	LF	$ 929.00	798	$ 741,342
8	Sewer Flow Control, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement, muck handling and disposal), electrical and standby power/pumps, monitoring, spill containment/mitigation, traffic control work, temporary erosion control measures, all related restoration work, in place complete.	LS	$ 755,700	1	$ 755,700

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Exhibit D (11 of 17)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B –Base Bid

Description of Work: CIPP lining 21", 24", 30" and 36" existing sewer pipes, providing temporary bypass and traffic control as necessary to complete the rehabilitation and replacement work.

				Schedule B – Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
				Schedule B – BASE BID (TOTAL Items 1 through 8, inclusive)	$3,998,688

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B – Additive Bid No. 1

Description of Work: CIPP part-liner or chemical grouting to control infiltration/inflow prior to CIPP lining.

				Schedule B – Additive Bid No. 1	
1	CIPP part-liner or grouting to control infiltration on the existing 21" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$2330.00	70	$163,100.00
2	CIPP part-liner or grouting to control infiltration on the existing 24" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$2330.00	80	$186,400.00
3	CIPP part-liner or grouting to control infiltration on the existing 30" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$2960.00	160	$473,600.00
4	CIPP part-liner or grouting to control infiltration on the existing 36" sewer line, where approved by the Owner, including full compensation for all labor, materials, supplies, equipment, tools, and all incidentals for completed work.	LF	$2960	160	$473,600.00
				SCHEDULE B – Additive Bid No. 1 (TOTAL Items 1 through 4, inclusive)	$5,295,388.00

$1,296,700

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Exhibit D (12 of 17)

Route 4 Relief Sewer Line Rehabilitation and Replacement (Re-Bid)

SCHEDULE B - Additive Bid No. 2
Description of Work: Archaeological monitoring.

					SCHEDULE B – Additive Bid No. 2
1	Archaeological and cultural resource services to add new laydown staging areas outside of the suggested areas or outside of the area of potential effect as defined the Archaeological Monitoring and Data Recovery Plan for the project and resubmit to the Department of Parks and Recreation, Guam Historic Resources Division/State Historic Preservation Office for approval and acceptance.	LS	$35,000	1	$35,000
				SCHEDULE B - Additive Bid No. 2 (TOTAL Items 1, inclusive)	$5,330,388.00

Bidder acknowledges that estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents. Bidder also acknowledges that each unit price includes an amount considered by Bidder to be adequate to cover Bidder's overhead and profit for each separately identified item.

ARTICLE 6 - TIME OF COMPLETION

6.01 Bidder agrees that the furnishing of Goods and Special Services will conform to the schedule set forth in Article 5 of the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 - ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

A. Required Bid security in the form of bidder's bond.

B. List of Proposed Major Suppliers;

C. Required Bidder Qualification Statement with Supporting Data.

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

$35,000

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Exhibit D (13 of 17)

Insituform Technologies, LLC

World HQ: 17988 Edison Avenue Chesterfield MO 63005 636-530-8000 Fax: 636-530-8701

Local Off: 9654 Titan Court Littleton CO 80125 303-791-7199 Fax: 303-791-7399

GWA Route 4 Releif Sewer Line Rehabilitation and Replacement, Project No. S15-006-EPA

LIST OF SUBCONTRACTORS Selection for Insituform

1. CCTV/CLEARING - MOCON
2. BYPASS - MOCON
3.
4.
5.
6.

Exhibit D (14 of 17)

Insituform® Technologies, LLC

World HQ: 17988 Edison Avenue Chesterfield MO 63005 636-530-8000 Fax: 636-530-8701

Local Off: 9654 Titan Court Littleton CO 80125 303-791-7199 Fax: 303-791-7399

GWA Route 4 Releif Sewer Line Rehabilitation and Replacement, Project No. S15-006-EPA

LIST OF Suppliers Selection for Insituform

1. CIPP—Insituform
2. _____
3. _____
4. _____
5. _____

Exhibit D (15 of 17)

ARTICLE 9 - BID SUBMITTAL

9.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): N/A

By: _____
(Individual's signature)

Doing business as: _____

Business address: _____

_____

Phone: _____ Facsimile: _____

E-mail address: _____ _____

A Partnership

Partnership Name: N/A (SEAL)

By: _____
(Signature of general partner - attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

_____

Phone: _____ Facsimile: _____

E-mail address: _____

A Corporation

Corporation Name: N/A

State of Incorporation: _____

Type (General Business, Professional, Service, other): _____

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest _____
(Signature of Corporate Secretary)

Business address: _____

_____

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Exhibit D (16 of 17)

Phone: _____ Facsimile: _____
E-mail address: _____

A Limited Liability Company (LLC)

LLC Name: Insituform Technologies, LLC
State in which organized: Delaware
By: Whittney Schulte
(Signature - attach evidence of authority to sign)

Name (typed or printed): Whittney Schulte
Title: Contracting & Attesting Officer
Business address: 17988 Edison Avenue
Chesterfield, MO 63005
Phone: 636-530-8000 Facsimile: 636-530-8701
E-mail address: WSchulte@Aegion.com

A Joint Venture

First Joint Venturer Name: N/A (SEAL)

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____
Title: _____
Business address: _____
_____
Phone: _____ Facsimile: _____
E-mail address: _____
Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____
Title: _____
Business address: _____
_____
Phone: _____ Facsimile: _____
E-mail address: _____

Phone and Facsimile Number, and Address for receipt of official communications to Joint Venture: _____
_____
_____

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Exhibit D (17 of 17)

INSITUFORM TECHNOLOGIES, LLC

PRESIDENT APPOINTMENT OF OFFICERS

Pursuant to the authority set forth in the Limited Liability Company Agreement of Insituform Technologies, LLC (the "Company"), I hereby determine that:

1. Christlanda Adkins, Laura M. Andreski, Janet Hass, Jana Lause, Diane Partridge, Whittney Schulte, and Ursula Youngblood are appointed as Contracting and Attesting Officers of the Company, each with the authority, individually and in the absence of the others, subject to the control of the Board of Managers of the Company, (i) to certify and to attest the signature of any officer of the Company, (ii) to enter into and to bind the Company to perform pipeline rehabilitation activities of the Company and all matters related thereto, including the maintenance of one or more offices and facilities of the Company, (iii) to execute and to deliver documents on behalf of the Company, and (iv) to take such other action as is or may be necessary and appropriate to carry out the project, activities and work of the Company; and

2. All other Contracting and Attesting Officers of the Company appointed by the President of the Company prior to the date of this appointment are hereby removed from office.

Dated: September 20, 2017

Frank R. Firsching
President

Exhibit B

Approved Contingency: $ 399,868.80

Change Order	Cost	
1	$ -	
2	$ 90,800.00	
3	$ 202,994.75	
4	$ 54,887.50	
5	$165,245.12	
6	$ 75,000.00	(estimated)
Total	$ 588,927.37	

Difference between approved contingency and estimated changer order total cost: $ 189,058.57

Requested additional contingency funds: $ 200,000.00

Exhibit C

ENGINEERING MANAGEMENT & PLANNING SERVICES CORPORATION

1998 ARMY DRIVE, ROUTE 16, 2/F EMPSCO BLDG., DEDEDO, GUAM 96929 □ PO BOX 21794 GMF, BARRIGADA, GU 96921 □ TEL (671) 6384716 /6385716 □ FAX (671) 6382136

March 17, 2020

Mr. Thomas F. Cruz, P.E.
Chief Engineer
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15 Mangilao, Guam 96913

Attention: **John Riegel**
Senior Manager
Brown and Caldwell

Subject: GWA Project No. S15-006-EPA, Route 4 Relief Sewer line Rehabilitation and Replacement_Change Order ~~04~~ (Schedule B) Note: The Change Order Number is 5

Ref.: Insituform Technologies LLC – Extra Cleaning Change Order ~~#4~~

Gentlemen,

Reference is made to Insituform Change order proposal no. 4 reference as above.

CM acknowledges Mr. John Riegel (Brown&Caldwell) approval of Change Order no. 4 in the amount of One Hundred Sixty-Five Thousand Two Hundred Forty-Five and 12/100 ($165,245.12) for the additional cleaning cost the Contractor incurred on the project due to the following reasons:

a. Encountered heavy debris (Three quarters of pipe filled with silt, sand, large chunks of concrete, large chunks of coral and a manhole lid).
b. Volume of debris removed is approximately 1,518 cubic feet.
c. Way beyond standard cleaning which require more than 2 to 3 cleaning passes for removal of 1,518 cubic feet of debris).

Based on CM review, Insituform cannot claim cost for extra cleaning based on contract Specification Section 33 01 33, Sewer Line and Manhole Cleaning, paragraph 1.04B, paragraph 2.01 and 2.01B. However, per CM and Brown & Caldwell's determination, this extra cleaning work was assessed as a differing site/physical condition per reference to Section 00700 paragraph 5.04. This agreement was previously acknowledged from our past weekly meeting.

The extra cleaning work for segment 1330, 1332, and 1333 were required for Insituform to properly install the CIPP lining continuously at Route 1. The impact of Change order 04 has been thoroughly reviewed and negotiated with Insituform based upon our discussion held last March 12, 2020.

Should you have any question, please do not hesitate to call or email our office.

Very Truly,

EMPSCO Engineering Consultants

Al Tyrone de Guzman, P.E.
Project Manager
Email: tyrone.deguzman@empsco.net

Enclosure:

a. Extra Cleaning Change Order 04 revised (Enclosure 1)
b. CM review letter w/ Daily report inspection report (Enclosure 2)
c. Email correspondence (Enclosure 3)
d. Evidence / justification report (Enclosure 4)

Enclosure 1

Insituform
Clean water for the world.

Worldwide Pipeline Rehabilitation
91-255 Kalaeloa Blvd.
Kapolei, HI. 96707
Phone: 808-682-4750
Fax: 808-682-4752

March 6, 2020

EMPSCO
Engineering Consultants
1998 Army Drive Rt. 16
2nd Flr. EMPSCO Bldg.
Dededo, GU 96929

Brown and Caldwell
414 W Soledad Ave. #602,
Hagatna, 96910 Guam

Attn: Ferdie Cabuhat, Tyrone De Guzman, and John Riegel.

Re: Route 4 Relief Sewer Line Rehabilitation and Replacement – Schedule B
Extra Cleaning Change Order #4

The following additional work pricing is requested on the above-mentioned project for segments 1330, 1332, and 1333. During cleaning Mocon encountered heavy debris (three quarter pipe of silt, sand, large chunks of concrete, large chunks of coral, and a manhole lid). Normal cleaning is considered 1 ½ days per segment. Mocon has spent 8 days cleaning and estimate another 8 days to finish. Volume of debris removed to date is 870 cubic feet. They estimate the remaining debris, which some will have to be removed by man entry, at 648 cubic feet. This is above and beyond industry standard cleaning (2 to 3 cleaning passes with 324 cubic feet of debris for every 3 segments). Please see below the change order pricing to cover cleaning and traffic control. In addition, we would like to request 16 extra days be added to the contract.

Line Segments	Pipe Size	Length	Original Price	Additional Cleaning and Debris Removal	Total
1330	36	250.42	$145.00	$196.00	$49,082.32
1332	36	323.28	$145.00	$196.00	$63,362.88
1333	36	226.02	$145.00	$196.00	$44,299.92
Bid Item 7	Traffic Control for 36"			$8,500.00	$8,500.00
				Total	**$165,245.12**

If you have any questions, feel free to contact me on my cell at (808) 265-3083 or by email at dmiller@aegion.com.

Sincerely,

Daren Miller
Insituform Technologies, LLC.
Senior Project Manager

Page 1 of 1

MOCON

99-1000 Halawa Valley St, Suite
A Aiea, HI 96701

Date:	2/20/2020
Estimate:	4
Job #	208059
Billing Period	10/31/19-2/20/2020
Federal ID	93-0686548
Invoice #	1839-4

From:	Darin Fogg---808-372-8751
Contract:	Guam Route 4--ITI Job #208059
Account :	1301
PO#	10625

Item No	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	CONTRACT PRICE	QUANTITIES			AMOUNT		
						Previous Quantities	Quantities This Period	To Date Quantity	Previous Amount	Period Billing	To Date Amount
C/O 4	Extra cleaning segments 1330, 1332, & 1333	799.72	LF	$177.00	$141,550.44		799.72			$ 141,550.44	
	TOTALS:				**$ 141,550.44**					$ 141,550.44	$ -
									$ -	$ -	$ -
					$ -				$ -	**$ -**	$ -
					$ 141,550.44			**Grand Total**	$ -	**$ 141,550.44**	$ -

Enclosure 2

ENGINEERING MANAGEMENT & PLANNING SERVICES CORPORATION
1998 ARMY DRIVE, ROUTE 16, 2/F EMPSCO BLDG., DEDEDO, GUAM 96929 □ PO BOX 21794 GMF, BARRIGADA, GU 96921 □ TEL (671) 6384716 /6385716 □ FAX (671) 6382136

January 2, 2020

Mr. Thomas F. Cruz, P.E.
Chief Engineer
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15 Mangilao, Guam 96913

Attention: **George Watson, P.E.**
Project Manager
Brown and Caldwell

Subject: GWA Project No. S15-006-EPA, Route 4 Relief Sewer line Rehabilitation and Replacement_Change Order#4

Ref.: Insituform Technologies LLC – Extra Cleaning Proposed Change Order #3

Gentlemen,

Reference is made to Insituform's Change order proposal no. 3 dated December 5, 2019 reference as above.

Based on CM review, Insituform cannot claim cost change based on contract Specification Section 33 01 33, Sewer Line and Manhole Cleaning, paragraph 1.04B, paragraph 2.01A and paragraph 2.01B.

However, Insituform can claim if they can provide evidence in writing for differing site/ physical condition in reference to Section 00700 paragraph 5.04. This was discussed during the previous progress meeting. In addition, the additional days for extra cleaning was reviewed based on inspection report (Refer to the following page for cleaning log accepted days) Therefore, we conclude that Insituform can only claim 8 extra days.

Once Insituform can provide differing site condition evidence in writing, then we can probably manage the PCO and then award 8 extra days be added to the contract.

Should you have any question, please call or email our office.

Very Truly,
EMPSCO Engineering Consultants

_____
Al Tyrone A. de Guzman, P.E.
Project Manager

GUAM WATERWORKS AUTHORITY

ROUTE 4 RELIEF SEWER LINE REHABILITATION AND REPLACEMENT (RSLRR) - INSITUFORM TECHNOLOGIES, LLC (ITL)

UPDATED DAILY INSPECTION REPORT

CLEANING LOGS

Date	Line Segment	Hours	Length	Remarks / Comments	Supervised	Accepted Days
10/4/2019	1330	9pm to 5am	none		Ted	
11/4/2019	1329 to 1331	7pm to 3am	none		Ted	
11/5 - 11/13/2019	1329 to 1331			ITL & Mocon having problem with vactor's cleaner	Ted	
11/14 - 11/15/2019	6772	9:30am to 11am		Mocon cleaned & repair SL and MH by removal of debris rocks and sand	Ted	
11/20/2019	1332	10pm to 4am	15 ft	Mocon tried cleaning SL upstream	Ted	1
11/21/2019	1333	7pm to 1am	15 ft	Mocon tried cleaning SL downsteam	Ted	1
	1333	7pm to 1am	123 ft	Mocon tried cleaning SL upsteam; no CCTV	Ted	
11/22/2019	1332	7pm to 1am	135 ft	Mocon tried cleaning SL upsteam; no CCTV	Ted	1
	1332	7pm to 9pm	200 ft	Mocon tried cleaning SL upsteam; no CCTV	Ted	
11/24/2019	1332	7pm to 4am	40 ft	Mocon cleaned SL downstream; provide photos	Garret	1
11/25/2019	1332	7pm to 4am	183 ft	Mocon cleaned SL upstream; provide photos	Garret	1
	1332	7pm to 4am	120 ft	Mocon cleaned SL downstream; provide photos	Garret	
11/26/2019	1332	7pm to 4am	120 ft	Mocon cleaned SL downstream; provide photos	Garret	1
	Manhole 183	7pm to 11pm	none	Tried to clean manhole		
11/27/2019	Manhole 183	7pm to 9pm	none	SM 183 full of water	Garret	
11/28 to 11/30/2019			none	ITL & Mocon stated Vactor's problem; No work		
12/1 to 12/31/2019			none	ITL & Mocon stated Vactor's problem; No work		

TOTAL ACCEPTED SPENT DAYS		6
TOTAL ESTIMATED DAYS TO FINISH		2

Insituform
Clean water for the world.

Worldwide Pipeline Rehabilitation
91-255 Kalaeloa Blvd.
Kapolei, HI. 96707
Phone: 808-682-4750
Fax: 808-682-4752

December 5, 2019

EMPSCO
Engineering Consultants
1998 Army Drive Rt. 16
2nd Flr. EMPSCO Bldg.
Dededo, GU 96929

Brown and Caldwell
414 W Soledad Ave. #602,
Hagatna, 96910 Guam

Attn: Ferdie Cabuhat, Tyrone De Guzman, John Riegel, and George Watson.

Re: Route 4 Relief Sewer Line Rehabilitation and Replacement – Schedule B
Extra Cleaning Change Order #3

The following additional work pricing is requested on the above-mentioned project for segments 1330, 1332, and 1333. During cleaning Mocon encountered heavy debris (three quarter pipe of silt, sand, large chunks of concrete, large chunks of coral, and a manhole lid). Normal cleaning is considered 1 ½ days per segment. Mocon has spent 8 days cleaning and estimate another 5 days to finish. Volume of debris removed to date is 870 cubic feet. They estimate the remaining debris, which some will have to be removed by man entry, at 648 cubic feet. This is above and beyond industry standard cleaning (2 to 3 cleaning passes with 324 cubic feet of debris for every 3 segments). Please see below the change order pricing to cover cleaning and traffic control. In addition, we would like to request 14 extra days be added to the contract.

Line Segments	Pipe Size	Length	Original Price	Additional Cleaning and Debris Removal	Total
1330	36	250.42	$145.00	$196.00	$49,082.32
1332	36	323.28	$145.00	$196.00	$63,362.88
1333	36	226.02	$145.00	$196.00	$44,299.92
Bid Item 7	Traffic Control for 36"			$8,500.00	$8,500.00
				Total	**$165,245.12**

If you have any questions, feel free to contact me on my cell at (808) 265-3083 or by email at dmiller@aegion.com.

Sincerely,

Daren Miller
Insituform Technologies, LLC.
Senior Project Manager

Page 1 of 1

Enclosure 3

Tyrone De Guzman

From: Daren Miller <dmiller@aegion.com>
Sent: Thursday, December 5, 2019 4:37 PM
To: John Riegel; George Watson; Ferdie Cabuhat; Tyrone De Guzman
Subject: Route 4 Additional Cleaning Change Order Segments 1330, 1332, 1333
Attachments: Extra Cleaning Change Order 3 revised 12 5 2019.doc

Follow Up Flag: Follow up
Flag Status: Completed

All,

Attached is our revised change order for the extra cleaning of segments 1330, 1332, and 1333. I discussed the cleaning with our Area Vice President and Head of Operations. They have directed me to request $196.00 per foot in addition too the original price of $145.00 per foot. With the high volume of debris, large rocks, large coral, and manhole lid they believe the price is justified (Two examples delivered to Brown & Caldwell office). Plus most of the remaining large debris, estimated at 658 cubic feet, will have to be removed by man entry. Below is the volume of debris removed to date.

Method of Hauling	Debris	Unit of Measure
Vactor Load	324	Cubic Feet
Vactor Load	324	Cubic Feet
Vactor Load	162	Cubic Feet
Truck Bed Load	60	Cubic Feet
Total	870	Cubic Feet

Please let me know if there is anything else I can provide to help get this change order approved.

Thank you,

Daren Miller | Senior Project Manager | **Insituform Technologies LLC.**
91-255 Kalaeloa Blvd | Kapolei, Hawaii 96707
Mobile: 671.929.7888 | **www.Aegion.com**
dmiller@aegion.com

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Aegion

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. 23-FY2020
Relative to Creation of a COVID-19 Regulatory Asset

What is the project's objective and is it necessary and urgent?
Setting up a regulatory asset to capitalize extraordinary expenses incurred during the COVID-19 response will allow Guam Waterworks Authority (GWA) to offset these expenses against any future relief provided by the local or federal government and / or amortize the expenses next fiscal year when revenues rebound. The action is necessary to minimize impacts to GWA's ability to meet bond indenture requirements, and is urgent in light of the rapidly changing conditions resulting from the current pandemic.

In response to the Global Health Emergency declared by the World Health Organization and the national emergency declared by President Donald Trump, on March 14, 2020, Governor Lourdes A. Leon Guerrero, issued Executive Order 2020-03 declaring a state of emergency to respond to Novel Coronavirus (COVID-19). Further, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices and the prohibition of large gatherings.

Executive Order 2020-05 ordered the closure of businesses or public accommodations except for certain exemptions such as healthcare operations, grocery stores, gas stations and hardware stores during the COVID-19 emergency period through March 30, 2020. Executive order 2020-06 and 2020-09 extended the emergency period through April 13, 2020 and May 5, 2020 respectively.

Although revenues are likely to be impacted by the near shutdown of the tourism market and the closure of certain government agencies and businesses, Guam Waterworks Authority (GWA) must continue to provide essential water and wastewater services needed for the health and safety of the community. Extraordinary expenses in response to the COVID19 emergency may include but are not limited to:

- Additional pay for employees required to report to work
- Equipment and tools to allow employees to work from home
- Alternate or enhanced methods for customers to pay their bills such as opening a drive thru, lifting credit card
- Development and distribution of communications materials to employees and customers

Upon approval by the Consolidated Commission on Utilities, GWA will petition the Public Utility Commission (PUC) to capitalize expenses related to the COVID-19 emergency in the form of a regulatory asset and amortize those expenses in FY2021, or over a period determined by the PUC, when revenues are expected to rebound.

Where is the location?
Not applicable.

How much will it cost?
This action seeks to capitalize the extraordinary costs expended to address the COVID19 emergency declaration.

When will it be completed?
Upon approval by the Public Utility Commission (PUC), the Regulatory Asset will be set up and amortized in FY2021 or over a period determined by PUC.

What is the funding source?
Revenues will be used to fund these expenditures. If cash from Revenues is insufficient, the Working Capital Reserve will be used. As the Regulatory Asset is amortized over the next fiscal year, the Working Capital Reserve will be reimbursed.

The RFP/BID responses (if applicable):
Not applicable.

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. 23-FY2020

RELATIVE TO CREATION OF A COVID-19 REGULATORY ASSET

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, in response to the Global Health Emergency declared by the World Health Organization and the national emergency declared by President Donald Trump, on March 14, 2020, Governor Lourdes A. Leon Guerrero issued Executive Order 2020-03 declaring a state of emergency to respond to Novel Coronavirus (COVID-19); and

WHEREAS, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices through March 30, 2020; and

WHEREAS, Executive Order 2020-05 ordered the closure of businesses or public accommodations except for certain exemptions such as healthcare operations, grocery stores, gas stations and hardware stores during the COVID-19 emergency period; and

WHEREAS, Executive Orders 2020-06 and 2020-09 extended the closure of all non-essential Government of Guam offices through April 13, 2020 and May 5, 2020 respectively; and

WHEREAS, payments to employees during this emergency period are governed by Department of Administration Personnel Rules and Regulations (DOA PRR) which have been adopted by GWA; and

WHEREAS, DOA PRR Rule 8.406 *Natural Disasters and Other Emergency Conditions* governing emergency conditions which create unsafe working conditions requires that 1) all non-essential employees be released from duty without charge to leave and 2) all employees required to remain on duty be paid double the regular rate or granted compensatory leave credits for the hours worked; and

WHEREAS, GWA has incurred other extraordinary and unplanned expenses related to the COVID-19 Emergency including, among other things, equipment and tools to allow employees to work from home, creating alternate or enhanced payment methods for customers and developing and distributing communications related to the emergency; and

WHEREAS, water consumption by hotel and commercial customers classes have declined as a result of the COVID-19 emergency, impacting GWA revenues; and

WHEREAS, the COVID-19 emergency, has negatively affected GWA revenues while requiring additional expenditures and these financial impacts were not included in the FY2020 financial projections for FY2020 approved in GWA Docket 19-08 FY20 Rate Decision by the Public Utilities Commission on February 27, 2020; and

WHEREAS, GWA's working capital reserves are sufficient to cover normal O&M expenditures for up to three months but the combination of reduced revenues and increased expenditures will have a negative impact on operating income, and similarly affect debt service coverage; and

WHEREAS, capitalizing COVID-19 emergency related expenses will allow GWA to amortize the asset in FY2021 or over a period identified by the PUC after the emergency is lifted and revenues have rebounded.

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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 petition the Public Utilities Commission (PUC) for an accounting order allowing GWA to establish a regulatory asset for the costs related to COVID-19 expenses which will be amortized over a period determined by the PUC.
3. As part of the CFO's monthly report to the CCU, GWA will provide an update of expenses that have been capitalized.

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

DULY AND REGULARLY ADOPTED, this 28th day of April 2020.

Certified by:	Attested by:
_____	_____
JOSEPH T. DUENAS	**MICHAEL T. LIMTIACO**
Chairperson	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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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. 24-FY2020
Relative to Credit Card Limits

What is the project's objective and is it necessary and urgent?
Effective April 13, and thru this emergency period, Guam Waterworks Authority (GWA) will make it easier for its non-residential customers to make payments against their billings by lifting credit card limits. This will enable non-residential customers to safely make payments online while minimizing the time and staff needed to process payments made by cash or check and will make funds available more immediately.

GWA currently has a $500 monthly limit on Visa and Discover credit card payments made for non-residential accounts. This requires non-residential customers to make payments by check or cash or not fully pay their bill on-line. There is currently no limit on Mastercard.

Where is the location?
Not applicable.

How much will it cost?
The fees are as follows:

Type	Fee
Credit and Signature Debit Cards (Merchant Fee)	.1033% of amount
PIN Debit Cards (Merchant Fee)	$.06 per transaction
Visa and Discover (Network Fees)	1% - 3%

When will it be completed?
This action will be effective April 13, 2020 thru the COVID-19 public health emergency period.

What is the funding source?
If the Public Utilities Commission authorizes the COVID-19 Regulatory Asset, the additional merchant fees will be capitalized and amortized over a period determined by the PUC. The fees will be paid from Revenues, or if Revenues are not sufficient, the Working Capital Reserve.

The RFP/BID responses (if applicable):
Not applicable.

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. 24-FY2020

RELATIVE TO SUSPENSION OF CREDIT CARD PAYMENT LIMITS ON NON-RESIDENTIAL ACCOUNTS

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, in response to the Global Health Emergency declared by the World Health Organization and the national emergency declared by President Donald Trump, on March 14, 2020, Governor Lourdes A. Leon Guerrero issued Executive Order 2020-03 declaring a state of emergency to respond to Novel Coronavirus (COVID-19); and

WHEREAS, the COVID-19 Public Health Emergency ordered the closure of non-essential Government of Guam agencies and non-essential businesses; and

WHEREAS, the COVID-19 Public Health Emergency has made it difficult for GWA to receive payments given among other things, the closure of GPWA offices to the public, certain banks not accepting utility payments at the teller line, and limitations on access to staff; and

WHEREAS, CCU Resolution 25-FY2010 places a $500 limit on all credit card transactions for non-residential accounts; and

WHEREAS, GWA is seeking CCU approval and authorization in a separate resolution, to petition the Public Utilities Commission (PUC) to create a regulatory asset to capitalize

expenditures related to the COVID-19 Emergency to be amortized in FY2021 or a period determined by the PUC; and

WHEREAS, any additional transaction fees related to the suspension of credit card limits are meant to be included in the expenditures to be capitalized.

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 the suspension of limits on payments for non-residential accounts will improve collections, provide for increased customer convenience and ensure safety of both GWA customers and staff.
3. The CCU hereby authorizes the suspension of the limits on credit card payments for non-residential accounts for the duration of the declared state of emergency, or until GWA customer service centers re-open, whichever is later.
4. As part of the monthly CFO report, the CFO will provide a summary of customers using this facility to make payments, as well as a summary of estimated additional transactional fees incurred.

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

DULY AND REGULARLY ADOPTED, this 28th day of April 2020.

Certified by:	Attested by:
_____	_____
JOSEPH T. DUENAS	**MICHAEL T. LIMTIACO**
Chairperson	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: _____

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GUAM WATERWORKS AUTHORITY

Engineering Monthly Report
April 2020

Prepared By:
Mauryn McDonald, P.E., Acting Chief Engineer

Table of Contents

Section, Description	Page
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A. Summary Table of 2010, 2013 and 2016 Bond

Potable Water

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
PW 05-01	Ground Water Disinfection	$ 500,000.00	93.00%	7.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 05-03	Santa Rita Springs Booster Pump Rehab Phase II	$ -	N/A	N/A	$ 100,000.00	100.00%	0.00%	$ -	N/A	N/A
PW-05-05	"A Series Well Transmission Line	$ 475,709.00	100.00%	0.00%	$ 369,846.00	100.00%	0.00%	$ -	N/A	N/A
PW 05-06	Water Booster Pump Station	$ 500,000.00	100.00%	0.00%	$ 1,679,964.00	99.22%	0.78%	$ -	N/A	N/A
PW 05-07	Meter Replacement Program	$ 10,450,000.00	100.00%	0.00%	$ 996,532.00	85.75%	14.25%	$ 1,400,000.00	10.71%	89.29%
PW 05-08	Barrigada Tank Repair/Replacement	$ 5,450,000.00	100.00%	0.00%	$ 4,987,000.00	96.16%	3.83%	$ -	N/A	N/A
PW 05-09	Leak Detection	$ 200,000.00	8.52%	91.48%	$ 16,916.00	0.00%	100.00%	$ 100,000.00	0.00%	100.00%
PW 05-10	Potable Water System Planning	$ 210,487.45	100.00%	0.00%	$ 624,000.00	98.49%	1.51%	$ 876,294.00	100.00%	0.00%
PW 05-11	Implement Ground Water Rule	$ 1,699,999.00	100.00%	0.00%	$ 1,000,000.00	98.18%	1.82%	$ -	N/A	N/A
PW 05-12	Brigade II (Ugum Lift) BPS Upgrade	$ 1,900,000.00	16.06%	83.94%	$ -	N/A	N/A	$ -	N/A	N/A
PW 05-13	Deep Well Rehabilitation	$ 548,000.00	100.00%	0.00%	$ 200,000.00	88.89%	11.11%	$ 250,000.00	44.01%	55.99%
PW 05-14	New Deep Wells at Dow n Hard	$ 485,743.00	100.00%	0.00%	$ -	N/A	N/A	$ 1,190,000.00	0.00%	100.00%
PW 05-15	Rehabilitation of Asan Springs	$ 1,100,000.00	22.87%	77.13%	$ -	N/A	N/A	$ -	N/A	N/A
PW 05-16	Master Meters	$ 1,489,957.00	100.00%	0.00%	$ 712,060.00	92.29%	7.71%	$ 2,151,539.00	7.04%	92.96%
PW 09-01	Ugum Water Treatment Plant Intake	$ 700,000.00	100.00%	0.00%	$ 859,801.00	42.88%	57.12%	$ -	N/A	N/A
PW 09-02	Water Wells	$ -	N/A	N/A	$ 3,030,029.00	71.18%	28.82%	$ 2,500,000.00	6.80%	93.20%
PW 09-03	Water Distribution System	$ 3,174,748.00	100.00%	0.00%	$ 10,912,453.00	95.10%	3.39%	$ -	N/A	N/A
PW 09-04	Pressure Zone Realignment	$ -	N/A	N/A	$ 337,110.00	100.00%	0.00%	$ 1,141,000.00	100.00%	0.00%
PW 09-06	Central Water Distribution System 2005	$ 775,002.00	93.08%	6.92%	$ -	N/A	N/A	$ -	N/A	N/A
PW 09-08	Mechanical/Electrical Equipment	$ 1,200,000.00	100.00%	0.00%	$ 426,799.00	72.58%	27.42%	$ -	N/A	N/A
PW 09-09	Water Reservoir Internal/External	$ 2,150,000.00	70.20%	29.80%	$ -	N/A	N/A	$ -	N/A	N/A
PW 09-10	Water Reservoir Internal/External	$ -	N/A	N/A	$ -	N/A	N/A	$ 800,000.00	100.00%	0.00%
PW 09-11	Water System Reservoirs 2005 Improvements	$ 1,050,000.00	100.00%	0.00%	$ 13,878,000.00	99.93%	0.07%	$ 58,830,170.00	80.83%	18.67%
PW 11-01	Distribution System Upgrades	$ 474,160.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 11-02	Ugum Water Treatment Plant Reservoir	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-01	Water Audit Program & Water Loss Control Plan	$ 78,459.00	100.00%	0.00%	$ -	N/A	N/A	$ 550,000.00	59.30%	40.70%
PW 12-02	Production Plan / Reduce Navy Purchases	$ 100,000.00	99.90%	0.10%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-03	Hydraulic Assessment of Tanks	$ 500,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-04	Agana Heights & Chaot Tanks	$ 4,700,000.00	100.00%	0.00%	$ 1,330,287.00	100.00%	0.00%	$ 1,220,000.00	100.00%	0.00%
PW 12-05	Tank Major Repair Yigo #1, Mangilao #2, Astumbo#1	$ 1,848,013.00	100.00%	0.00%	$ 11,605,000.00	99.33%	0.67%	$ 1,822,133.00	99.62%	0.38%
PW 12-06	Tank Replacement Piti & Hyundai	$ -	N/A	N/A	$ -	N/A	N/A	$ 7,300,000.00	100.00%	0.00%
PW 12-07	Assessment of Malojloj Elevated & Yigo Elevated	$ 200,000.00	100.00%	0.00%	$ 485,117.00	100.00%	0.00%	$ -	N/A	N/A
PW 12-08	Public Water System Asset Inventory/ Condition Assessment	$ 100,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-09	Public Water System GIS & Mapping	$ 50,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 14-01	Fire Hydrant Replacement Program	$ -	N/A	N/A	$ -	N/A	N/A	$ 1,200,000.00	99.70%	0.30%
		$ 42,110,277.45			$ 53,550,914.00			$ 81,331,136.00		

Wastewater

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
WW 05-04	Wastew ater System Planning	$ 1,492,857.19	100.00%	0.00%	$ 650,901.00	84.44%	15.56%	$ 312,983.00	100.00%	0.00%
WW 05-05	Wastew ater Vehicles	$ 235,000.00	89.27%	10.73%	$ -	N/A	N/A	$ -	N/A	N/A
WW 05-07	NDWWTP - Chlorine Tanks	$ 457,981.68	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 09-01	Lift station upgrades	$ -	N/A	N/A	$ 563,148.00	96.89%	3.11%	$ 1,714,755.00	27.10%	72.90%
WW 09-06	Wastew ater Collection System Repl/ Rehabilitation	$ 1,001,323.00	100.00%	0.00%	$ 732,358.36	88.82%	11.18%	$ 1,055,478.00	56.98%	43.02%
WW 09-08	Facilities Plan/Design for Baza Gardens WWTP	$ 1,250,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 09-10	Facilities Plan/Design for Agat-Santa Rita WWTP	$ 899,630.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 11-03	Baza Gardens STP Replacement	$ 1,488,378.00	100.00%	0.00%	$ 9,656,874.00	96.51%	3.49%	$ 25,048,522.50	99.40%	0.60%
WW 11-04	Facilities Plan/Design for Umatac-Merizo WWTP	$ 853,858.00	100.00%	0.00%	$ 371,699.00	100.00%	0.00%	$ 252,105.00	100.00%	0.00%
WW 11-08	Agat/Santa Rita STP Replacement	$ 2,217,700.00	100.00%	-0.04%	$ 67,200,000.00	100.00%	1.35%	$ 2,226,659.06	100.00%	0.00%
WW 12-01	Northern District WWTP Primary Treatment Upgrade	$ 11,743,514.00	97.12%	2.88%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-02	Biosolids Management Plan	$ 200,000.00	81.04%	18.96%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-03	Agana WWTP Interim Measures	$ 11,300,000.00	100.58%	-0.58%	$ 718,075.68	100.00%	0.00%	$ -	N/A	N/A
WW 12-04	I&I SSES Southern	$ 800,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-05	I&I SSES Central	$ 850,000.00	93.57%	6.43%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-06	I&I SSES Northern	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 12 -07	Umatac Merizo Replacement	$ 250,000.00	100.00%	0.00%	$ -	N/A	N/A	$ 20,952,871.63	99.93%	0.07%
WW 12-08	Wastew ater System GIS & Mapping	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-09	Wastew ater Facility Back Up Pow er	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-10	Wastew ater System Asset Inventory	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 17-01	Wastew ater Sew er System Expansion	$ -	N/A	N/A						
WW 17-02	Northern District WWTP Secondary Treatment Upgrade	$ 948,250.00	100.00%	0.00%						
		$ 35,988,491.87			$ 79,893,056.04			$ 51,563,374.19		

Electrical Engineering Support

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
EE 05-02	SCADA Pilot Project	$ 61,950.00	31.98%	68.02%	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-01	Wastewater Pumping Station Electrical Upgrade	$ -	N/A	N/A	$ 99,861.00	100.00%	0.00%	$ -	N/A	N/A
EE 09-02	Electrical Upgrade - Water Wells	$ 354,227.00	100.00%	0.00%	$ 1,500,000.00	99.31%	0.69%	$ -	N/A	N/A
EE 09-03	Electrical Upgrade - Water Booster	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-04	Electrical Upgrade - Water Booster	$ -	N/A	N/A	$ 977.00	100.00%	0.00%	$ -	N/A	N/A
EE 09-05	Electrical Upgrade - Other Water	$ -	N/A	N/A	$ 60,700.00	100.00%	0.00%	$ -	N/A	N/A
EE 09-06	SCADA Improvements - Phase I	$ 250,000.00	91.01%	8.99%	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-07	SCADA Improvements - Phase 2	$ 1,056,986.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-08	SCADA Improvements - Phase 3	$ 74,955.00	100.00%	0.00%	$ 722,359.00	93.08%	6.92%	$ 1,077,497.00	74.43%	25.57%
EE 09-09	SCADA Improvements - Phase 4	$ -	N/A	N/A	$ -	N/A	N/A	$ 4,378,118.00	86.07%	13.93%
		$ 1,798,118.00			$ 2,383,897.00			$ 5,455,615.00		

Miscellaneous Engineering Support

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
MC 05-01	Laboratory Modernization	$ -	N/A	N/A	$ 1,171,465.00	99.95%	0.05%	$ 1,127,000.00	100.00%	0.00%
MC 05-02	Land Survey	$ 499,688.00	100.00%	0.00%	$ 1,052.00	100.05%	-0.05%	$ 1,260,524.00	99.35%	0.65%
MC 09-01	General Plant Improvements	$ 7,241,000.00	100.00%	0.00%	$ 2,441,737.00	54.71%	45.29%	$ 1,543,760.00	96.97%	3.03%
MC 15-01	Information Technology Intergration Improvements							$ 500,000.00	48.81%	51.19%
		$ 7,740,688.00			$ 3,614,254.00			$ 4,431,284.00		

	2010 Bond Allotment	2013 Bond Allotment	2016 Bond Allotment
CIP Water	$ 42,110,277	$ 53,550,914	$ 81,331,136
CIP Wastewater	$ 35,988,492	$ 79,893,056	$ 51,563,374
CIP Electrical	$ 1,798,118	$ 2,383,897	$ 5,455,615
CIP Miscellaneous	$ 7,740,688	$ 3,614,254	$ 4,431,284
	$ 87,637,575	$ 139,442,121	$ 142,781,409

Bond Fund	Construction Fund Amount ($M)	Estimated # of months fund available for use		Total Funds encumbered to date ($M)	% of fund used	Rate of Spending: ($M) per year
2005	$82.930	82	*	$82.930	100.00%	12.14
2010	$87.402	110	**	$83.541	95.58%	9.11
2013	$139.325	73	**	$136.483	97.96%	22.44
2015	$140.019	43		$90.326	64.51%	25.21

* - End date November 2013 via CCU Resolution 06-FY2014

** - Includes month of March 2020

B. Projects Procurement

Percentage Key:

100%	Approved by GM
99%	Signature required from either Accounting/Legal/GM
98%	Processing engineering service or construction contract (with legal)
95%	Request for CCU approval (GM/engineering)
90%	A/E fee negotiation or contractor bid evaluation (engineering)
80%	Selected A/E or Conducted bid opening (engineering)
70%	Advertised RFP/IFB (engineering)
60%	RFP/IFB Package under legal review
50%	RFP/IFB Package completed (engineering)
Less than 50%	Project Scope of work development in progress

- Red text anywhere indicates a change from the last report.

BOX KEY FOR PROCUREMENT:

(Type of Procurement) (Relevant CIP NO. or Funding Source)	**(Project Title)**	
(Percentage complete for procurement)	**Activities/Notes:** (see percentage key above)	**Consultant** (listed when selected)
Project Description	Summary of project description	

BID PACKAGE PW 09-02	**New Well Construction (AG-10-Y-8 & AG-12)**	
<50% Complete	**Activities/Notes:** GWA engineering continuing discussion with Dept. of Agriculture and lessee on options of acquisition of property for well site at AG-12. Internal GWA discussions underway for survey and appraisal services. GWA executed Change Order with GHD to update the design plans specific to the new well locations.	
Project Description:	The project is to construct three new production wells for GWA as well as installation of a water main to connect the new production wells to the Ysengsong Reservoirs.	

RFP PW 09-02	**New Well Construction (Construction Management)**	
<50% Complete	**Activities/Notes:** SOW being developed	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of up to three (3) new production wells for GWA. GWA plans to increase source water production to improve system redundancy that allows for operating the water production wells more effectively. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

BID PACKAGE PW 05-07	**Groundwater Well Production Meter Replacement Project**	
99% Complete	**Activities/Notes:** Contract package submitted to Finance on February 19, 2020.	
Project Description:	Work to be performed under this project shall consist of replacing the production well meters and associated well head piping.	

BID PACKAGE WW 09-06	**Bayside Sewer Pump Station Improvements Project**	
90% Complete	**Activities/Notes:** Bid Opening was conducted on March 9, 2020. Notice of Intent to Award issued to contractor on April 8, 2020.	
Project Description:	Work to be performed under this project shall consist of converting existing facility to pump station to house two submersible pumps along with improvements to the electrical system and the relocation of a power transformer located near the facility out to the nearest GPA power pole.	

BID PACKAGE PW 09-11	**Tank Repair and Bypass**	
98% Complete	**Activities/Notes:** PUC notification submitted to PUC on March 5, 2020. Contract package submitted to Finance on February 28, 2020.	
Project Description:	The work to be performed under this project consist of installing by-pass piping, valves, etc. ahead of certain tank inspection work. The operation of the by-pass will allow the tank inspector to determine appropriate repairs after which the contractor will proceed to repair the tank.	

BID PACKAGE PW 12-01, PW 09-11	**Pressure Zone Realignment Construction Phase I**	
98% Complete	**Activities/Notes:** PUC notification submitted on March 5, 2020. Contract package submitted to Finance on March 12, 2020.	
Project Description:	Work to be performed under this project consist of installing Pressure Regulating Valves (PRV's), piping, gate valves, etc. at strategic locations within the water distribution system to control the pressure ranges to the customers.	

BID PACKAGE USEPA-SRF	**Groundwater Wells A-02, A-07, A-12, D-05 and F-03 Rehabilitation**	
70% Complete	**Activities/Notes:** No bid was submitted on December 13, 2019. Design consultant is revising the bid documents for re-bid of the project.	
Project Description:	Work to be performed under this project consist of rehabilitating four (4) existing production well sites including development, testing and permitting of a new production well.	

BID PACKAGE OEA GRANT	**Northern Guam Lens Aquifer (NGLA) Monitoring System Expansion Project for the Guam Water and Wastewater Infrastructure Improvements Program**	
50% Complete	**Activities/Notes:** Consultant submitted draft bid documents on March 30, 2020 for GWA review.	
Project Description:	Work to be performed under this project consist of installation of seven new monitoring wells and rehabilitation for two existing monitoring wells on Department of Defense (DoD) property	

BID PACKAGE OEA GRANT	**Northern Guam Lens Aquifer (NGLA) Monitoring System Rehabilitation Project for the Guam Water and Wastewater Infrastructure Improvements Program**	
50% Complete	**Activities/Notes:** Consultant submitted draft bid documents on March 30, 2020 for GWA review.	
Project Description:	Work to be performed under this project consist of rehabilitation of ten existing monitoring wells located on GovGuam or private property. Upon construction completion, all wells will be used to monitor water level and other groundwater characteristics of the NGLA.	

BOX KEY FOR PROJECT:

(Type of Project) (Relevant CIP NO.)	**(Project Title)** **(Contractor or consultant)**	**Start Date:** (month and year)
(Percentage complete for project)	**Activities/Notes:** (brief description of activity)	**Completion Date:** (month and year)
(Court Order Paragraph No.)	(Project type)	
Project Description	Project Description Narrative	

C. CIP Water Section

INSPECTION CIP PW 05-02	**Inspection & Maintenance Repairs to GWA Island-Wide Steel Water Tank Reservoirs Phase 2 (DCA)**	**Start Date:** April 2010
72% Complete	**Activities/Notes:** Remaining work is construction management services for the Tank Repair and Bypass Construction.	**Completion Date:** To be determined (TBD)
CO 38C	Engineering inspection services	
Project Description:	The Court Order requires GWA to inspect all active and in some cases inactive water reservoirs. The inspection results will allow GWA to determine if a reservoir requires repair or replacement.	

DESIGN CIP PW 05-12	**Brigade II BPS Upgrade (EM Chen)**	**Start Date:** April 2012
100% Complete (Basis of Design) 99% Complete (Design)	**Activities/Notes:** Design plans and specs continue to be reviewed and revised.	**Completion Date:** TBD
N/A	Engineering design services	
Project Description:	The design project is intended to assess system water supply feed from the north as well as Ugum WTP and the water demands downstream from the Brigade BPS so as to reconfigure the piping into the BPS and resize the pumps to me system head requirements.	

DESIGN PW 09-11	**Northern and Southern Guam Reservoir Design (TG Engineers)**	**Start Date:** May 2015
74% Complete	**Activities/Notes:** Ugum Reservoir Design is at approximately 50%. GWA and TGE is clarifying SCADA scope. TGE has submitted a change order for additional foundation design and meeting extension. GWA is reviewing scope and cost. Biological Assessment report pending. Archaeological report completed. Inarajan and Agfayan Booster Pump Station Meeting needs to be scheduled with GFD to discuss fire flow requirement before pumps can be sized for both sites. Biological Assessment and Archaelogical report are pending. Santa Rosa, Santa Rita, and Sinifa Reservoir Under construction. See Santa Rosa, Santa Rita, and Sinifa Construction for update.	**Completion Date:** None. (Expected 6 months after Agfayan property issue is resolved)
CO 29 (b)(4)	Engineering design services	

Project Description:	The design services will consist of preparation of plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, hydraulic modeling (EPANET), computational fluid dynamic modeling (CFD), construction schedule, topographical survey, property research, property mapping, geotechnical engineering, cultural resource inventory and evaluation of historic resources, hazardous materials survey, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for interpretation/information during construction. The tank locations are Ugum, Santa Rita, Santa Rosa, Inarajan and Sinifa.

DESIGN PW 12-04	**Central Guam Reservoirs Design (GHD Inc.)**	**Start Date:** May 2015
83% Complete	**Activities/Notes:** Tamuning No. 2 Reservoir and Tamuning Booster Pump Station Design is at approximately 50%. Property acquisition letter for Lot 1, Block 5, Tract 1427 is with GM for signature (Bobbie to GWA will make an offer of $45,900.00 for the lot. The lot is required for site access and utilities. If GWA cannot procure Lot 1, Block 5, Tract 1427, GWA will have to contact GIAA for access. Biological Assessment report completed. Archaeological report is pending. Manenggon Reservoir and Access Booster Pump Station Design is at 100% pre-final. Designer is performing QC checks before submitting to GWA for review. Biological Assessment report completed. Archaeological report completed. Piti Reservoir DCA and GHD working together to put together bid package. DCA has already completed the major steel tank repair plan and specifications. GHD is working on site utility plan and specifications. GWA has not submitted the Right of Way application to National Parks Services yet. GWA is waiting for Dept. of Agriculture consultation response letter before applying. Biological Assessment report has been completed. Archaeological report is pending. A23-A25 Deepwell (PFAS Treatment) Water sampling test results received. Designer is working on finalizing site layout for A-23. Jude is checking if a biological assessment and archeological report is needed for construction (grant funded). Tumon No. 1, Hyundai, Chaot No. 2 Reservoir	**Completion Date:** TBD

	Under construction. See Tumon No. 1, Hyundai, Chaot No. 2 Reservoir Construction for update.	
CO 29 (b)(4)	Engineering design services	
Project Description:	The design services will consist of preparation of plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, hydraulic modeling (EPANET), computational fluid dynamic modeling (CFD), construction schedule, topographical survey, property research, property mapping, geotechnical engineering, cultural resource inventory and evaluation of historic resources, hazardous materials survey, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for interpretation/information during construction The tank locations are Hyundai, Pulantat, Chaot #2, Tumon #2, Piti & Tumon #1.	

CONSTRUCTION PW 09-03	**Line Replacement Phase IV (Giant Construction)**	**Start Date:** February 14, 2016
92% Complete	**Activities/Notes:** Connection of new pipes to the existing waterline at Famha (Chalan Pago), Hahasu (Dededo) requires GWA Water Operation schedule.Work at Assumption Drive (Piti) is pending until DPW reopens the Building Permit Section due to COVID-19.	**Completion Date:** April 30, 2020
	Construction Services	
Project Description:	The project is intended to replace existing water lines that have been found by operations to be leaking and/or are causing service delivery to less than what GWA is required to provide. The project will replace water mains at ten known locations throughout the island and a component within the bid where line replacement work for unknown locations is accounted for.	

DESIGN PW 05-15	**Asan Spring Rehabilitation Design (HDR)**	**Start Date:** August 24, 2016
82% Complete	**Activities/Notes:** A Change Order No.2 has been routed to Finance for signature and pending GM's approval. The purpose for CO. No.2 is to address the potential Endangered Species that may be located on the project site.	**Completion Date:** June 2022
	Engineering design services	

Project Description:	- Perform site visits and condition assessment for site conditions to determine demolition and rehabilitation requirement, process equipment condition, structural condition, and electrical system. Site condition assessment shall include all disciplines to execute the project. - Review and validate the current property boundary information to confirm the available space for the project development. - Perform an environmental impact study and prepare all required permits as needed. - Perform an archeological and historical resources study to identify potential impact to the project, prepare all required permits as needed. - Coordinate with Guam Historic Resources Division State Historic Preservation Office (SHPO) on historical resources study. Prepare all necessary reports and documents as required by SHPO. - Coordinate with Guam Department of Agriculture, Division of Aquatic and Wildlife Resources (DAWR) on vegetation clearance. Prepare all necessary reports and documents required by DAWR. - Identify the existing and projected service area, period of design. - Identify and recommend conceptual water treatment system. - Perform a Class 4 engineering cost estimate according to the American Association of Cost Engineers (AACE) International Cost Estimate Classification System for construction fee. Cost must include all disciplines, permit, construction and administration that are necessary to execute the project. All costs will be in current dollars and escalated to the estimated midpoint of construction.

CONSTRUCTION PW 09-11, PW 12-05	**Yigo/Astumbo Tank Construction (Pernix)**	**Start Date:** December 1, 2016
99% Complete	**Activities/Notes:** Yigo #1: Final inspection conducted 02/07/2020. Yigo #2: Final inspection conducted 02/07/2020. Astumbo #1 (New Concrete): Contractor remaining work items include testing of instrumentation and electrical upgrade work. Electrical work cannot start until Pernix receives Contractor Licensing Board renewal.	**Completion Date:** 10/31/18 (LD are being totaled)
	Construction Services	
Project Description:	This project will involve construction of two (2) 2MG concrete tanks and Booster Pump Station at the Yigo site and a one (1) 2MG concrete tank at the Astumbo site. Work will involve new pipe line, valves, electrical controls, pumps and motors, site drainage, paving, generator for the BPS, SCADA, etc.	

CONSTRUCTION MANAGEMENT PW 09-11, PW 12-05	**Yigo/Astumbo Tank Construction Management (GHD)**	**Start Date:** December 2016
99% complete	**Activities/Notes:** Working to complete project close out requirements but due to additional time required	**Completion Date:** August 2019

	by contractor the CM services required as well. GWA executed Change Order after CCU approval.	
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the demolition of existing steel elevate and ground tanks as well as the construction of the 2MG concrete tanks at the Yigo tank location and Astumbo tank location. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

CONSTRUCTION MANAGEMENT PW 12-04, PW 12-06 AND PW 09-11	**Central Tank Phase I (Chaot #2, Tumon #2, Hyundai) Construction Management (TG Engineers, PC)**	**Start Date:** December 2017
66% complete	**Activities/Notes:** Tumon No. 1 Contractor working on water line at Marine Drive, control building, and site vaults. Hyundai Contractor working on tank roof, booster pump station, and offsite waterline. Tank pre-stressing work may be delayed due to COVID-19 restrictions. DN Tanks may not be able to get pre-stressing crew on island. Chaot No. 2 Contractor working on tank interior, site vaults, and well work. Baffles have been installed. Minor repair work inside tank. Dero Road PRV work on hold due to subcontractor being quarantined. Work to resume soon.	**Completion Date:** None.
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of three water reservoirs; 0.5MG Chaot #2, 1MG Tumon #2 (Nissan) and 1MG Hyundai. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

CONSTRUCTION PW 12-04, PW 12-06 AND PW 09-11	**Central Tank Phase I (Chaot #2, Tumon #2, Hyundai) Construction (AIC)**	**Start Date:** February 8, 2018
66% Complete	**Activities/Notes:** Tumon #1 Contractor working on water line at Marine Drive, control building, and site vaults. Hyundai Contractor working on tank roof, booster pump station, and offsite waterline. Tank pre-stressing work may be delayed due to COVID-19 restrictions. DN Tanks may not be able to get pre-stressing crew on island. Chaot #2 Contractor working on tank interior, site vaults, and well work. Baffles have been installed. Minor repair work inside tank. Dero Road PRV work on hold due to sub-contractor being quarantined. Work to resume soon.	**Completion Date:** TBD
	Construction Services	
Project Description:	The work performed under this project procurement shall consist of Construction of three water reservoirs; 0.5MG Chaot #2, 1MG Tumon #2 (Nissan) and 1MG Hyundai. Some piping work off site from the reservoir is also required to ensure the reservoirs function optimally.	

CONSTRUCTION MANAGEMENT PW 09-11	**Northern and Southern Tank Phase I (Santa Rosa, Sinifa, Santa Rita) Construction Management (GHD)**	**Start Date:** April 2018
0% Complete	**Activities/Notes:** NTP issued October 3, 2019. Pending permits with SHPO, GEPA, and DPW.	**Completion Date:** TBD (currently February 21, 2021)
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of three water reservoirs: 1MG Santa Rosa, 1MG Sinifa and 1MG Santa Rita. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

CONSTRUCTION PW 09-11	**Northern and Southern Tank Phase I (Santa Rosa, Sinifa, Santa Rita) Construction (AIC)**	**Start Date:** October 2019
0% Complete	**Activities/Notes:** NTP issued October 3, 2019. Pending permits with SHPO, GEPA, and DPW.	**Completion Date:** TBD
	Construction Services	
Project Description:	The work performed under this project procurement shall consist of Construction Services of three water reservoirs: 1MG Santa Rosa, 1MG	

	Sinifa and 1MG Santa Rita. Some piping work off site from the reservoir is also required to ensure the reservoirs function optimally.

DESIGN PW 05-12	**Pressure Zone Realignment and Tank Repair-Replacement (GHD)**	**Start Date:** August 2018
20% Complete Design will be done in Phases. Phase 1 - 100% (Design) Phase 2 - 30% (Design)	**Activities/Notes:** Designer is working on Phase II sites.	**Completion Date:**
N/A	Engineering design services	
Project Description:	The design project is intended to assess current and recommended pressure zones, and design and install control valves (PRVs, PRSVs) to properly control and measure system flow between zones. Scope also includes setting up pilot DMAs; and design for new or repaired water tanks needed to complete the court order tank requirements.	

CONSTRUCTION	**Pressure Zone Realignment and Tank Repair-Replacement – Phase I (Sumitomo)**	**Start Date:** December 17, 2019 (Notification of Award)
0% Complete	**Activities/Notes:** Construction contract pending. Engineering sent contract to Finance on March 12, 2020.	**Completion Date:** TBD (currently January 2021)
N/A	Construction Services	
Project Description:	The work performed under this project procurement shall consist of Construction Services for the installation of control valves (PRVs, PRSVs), piping, and related electrical upgrades to properly control and measure system flow between zones.	

DESIGN PW 09-02	**New Well Site Development - Y-08, AG-10, AG-12 (GHD)**	**Start Date:** September 2018 (Extension)
99% Complete	**Activities/Notes:** Design plans and specs continue to be reviewed and revised. Concerns in design being addressed by GHD. Cost estimate may be developed by GHD to determine plausible design changes.	**Completion Date:** TBD
N/A	Engineering Design Services	
Project Description:	The design project is intended to design 3 new wells to increase production capacity. The design services will consist of preparation of plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, construction schedule, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for	

	interpretation/information during construction.

CONSTRUCTION PW 14-01	**Fire Hydrant Replacement Phase I (Mega United Corporation, Ltd.)**	**Start Date:** October 19, 2019
0% Complete	**Activities/Notes:** DPR already signed the permit first week of March but still needs permit approval with other agencies and Mayor's Offices. The customer service for clearances of highway encroachment permit was temporarily suspended due to Covid-19. We can resume the permit processing once the operation is back to normal. Some of the materials ordered off island already arrived.	**Completion Date:** October 25, 2020
Project Description:	The work performed under this project consist of replacing all know dry barrel fire hydrants down to the lateral as well as any defective wet barrel fire hydrant. Where necessary the gate valve for the fire hydrant may also be replaced.	

D. CIP Wastewater Section

CONSTRUCTION WW 11-08	**Agat-Santa Rita WWTP Phase II (Sumitomo Construction)**	**Start Date:** January 2016
Part 1 of Phase II-100% Complete Part 2 of Phase II-100% complete	**Activities/Notes:** Awaiting approved Change Order# 16 & 17 to release full retention and final payment of Sumitomo.	**Completion Date:** Part 2 of Phase II – November 26, 2019
CO #16	Construction services	
Project Description:	This project includes construction of the head works, clarifier, oxidation ditches and UV disinfection and administration facilities. Rehabilitation work at the existing WWTP will also occur to ensure the wastewater can be pumped to the new plant. The new plant will also tie into the Tipalao SPS.	

DESIGN WW 09-06	**Bayside SPS Improvements Design (EMPSCO)**	**Start Date:** July 29, 2016
100% Design 0% Construction Services	**Activities/Notes:** Bid Analysis reviewed and analyzed by GWA. Sumitomo is the lowest bidder, but SMCC provided the outdated form instead of revised. GWA advise Sumitomo to rectify the bid form (SMCC accept addendum 1 & 2 prior to opening of bids). Letter of Award to Sumitomo to follow.	**Completion Date:** TBD
CO #3	Engineering design services	
Project Description:	The intent of this project for an engineering firm to prepare design	

	drawings and specification to upgrade the Bayside Sewer Pump Station given the facility is in major disrepair and the adjacent river is eroding away the access road to the facility which is causing maintenance challenges and install underground power cable due to GPA's concern that existing power pole, located on the bank is at risk of being lost due to storm surges.

CONSTRUCTION WW 09-08, WW 11-03	**Baza Gardens Cross Island Road Sewer Conveyance Construction Phase II (BME and Sons)**	**Start Date:** March 2017
100% Complete	**Activities/Notes:** BME delivered spare pump to GWA Maintenance on April 6, 2020.	**Completion Date:** January 14, 2019
CO #6	Construction services	
Project Description:	The work performed under this project consist of construction of 1,767' of gravity main, 14,400' of force mains and sewer pump station #2 along Route 17.	

CONSTRUCTION WW 09-08, WW 11-03	**Baza Gardens Cross Island Road Sewer Conveyance Construction Phase III (Sumitomo Construction)**	**Start Date:** June 2017
100% Complete	**Activities/Notes:** Finalizing project close out documents including warranties, O&M, CO #5 and Final CO, Final Payment, and issuance of Substantial Completion Certificate.	**Completion Date:** TBD
CO #3	Construction services	
Project Description:	The work performed under this project consist of construction of, but not limited to, 10,481' of force mains and sewer pump station at existing WWTP, equalization tanks, stand-by generator, improved headworks, grit removal system, and associated equipment.	

CONSTRUCTION WW 11-04	**Umatac-Merizo WWTP Design Build Improvements Project (CoreTech)**	**Start Date:** June 2017
100% Design 99% Construction	Activities/Notes: - Plant has been commissioned and all components are operational. - Final SCADA adjustments for Recirculation control and alarm condition auto-dial feature remain to be done (neither affects operational control). - Substantial Completion determined to be January 3, 2020 and recommended to GWA. - Payment #19 sent to GWA. Change Proposals: - Executed Change Orders through #21.	**Completion Date:** January 6, 2020
	Construction services	

Project Description:	The project is intended to improve the aeration basin, construct a new sewer pump station, regrade the overland field, construct a new effluent storage tank and disinfection facility. The overland percolation terraces are being regraded to ensure appropriate distribution of effluent through the entire terrace.

CONSTRUCTION MANAGEMENT WW 11-04	**Umatac-Merizo WWTP Design Build Improvements Project (SSFM Inc)**	**Start Date:** September 7, 2017
100% Complete	**Activities/Notes:** Review of As-Builts and Close-out documents to be done. Value of services will exceed current contract amount, but consultant has not requested a change order yet.	**Completion Date:** January 2020
	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the improvements works at the aeration basin, new sewer pump station, overland field improvements, effluent storage tank. The overall goal of the On-Site Representative is to ensure materials are installed and installation conforms to the contract plans and specifications and that all required testing is performed and passes.	

E. CIP Engineering Support

DESIGN EE 09-08	**SCADA System for Water and Wastewater Facilities Phase A-1 (AECOM)**	**Start Date:** June 11, 2015
100% Complete (Design) 81% Services during construction	**Activities/Notes:** No work to report. On standby to address any questions for DOR.	**Completion Date:** November 2017 - Design December 31, 2019 - (Bid and Construction Support)
N/A	Engineering design services	
Project Description:	The A/E firm will design an integrated, robust and secure Supervisory Control and Data Acquisition (SCADA) system for GWA's water and wastewater systems, and to provide support services during bid and construction. The 22 sites will consist of a combination of water facilities such as production wells, reservoirs, booster pump station and wastewater sites include sewer treatment plants and sewer pump stations. Executed by approved change orders, number of sites in original design scope has changed from 22 sites to 19 sites and design of High Water Alarm for 20 critical sewer pump stations has been added. Scope also includes bid and construction support of the design-build project of GPWA SCADA EMS project.	

CONSTRUCTION EE 09-08, EE 09-09	**SCADA Phase A1 Construction (G4S Security)**	**Start Date:** July 13, 2018
43% Construction	**Activities/Notes:** As-built, O&M Manual, Training Manual, Punchlist Items, Training are all outstanding. No items were cleared since last report. No payment is being processed due to contractor not meeting the requirements for payment, i.e. submittal of Red-line drawings and 30-day updated progress schedule.	**Completion Date:** December 31, 2019
	Construction services	
Project Description:	The work performed under this project procurement shall consist of Construction of SCADA ready instrumentation at several water and wastewater facilities throughout the island.	

CONSTRUCTION MANAGEMENT EE 09-08, EE 09-09	**SCADA Phase A1 Construction Management (GHD)**	**Start Date:** July 13, 2018
96% Complete	**Activities/Notes:** CCU approved CM's change order. Notification to PUC pending. Continuing to provide submittal review and closeout support.	**Completion Date:** December 31, 2019
	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the installation SCADA ready instrumentation at several water and wastewater facilities throughout the island. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

F. GIS Section

MAPPING MC 05-02	**Island Wide Survey-** **(Duenas, Camacho & Ass.)**	**Start Date:** December 2007
99% complete	**Activities/Notes:** Map regarding Airport Tank easement boundary is pending easement agreement with GIAA and final parceling map.	**Completion Date:** October 2019
	Survey services	
Project Description:	The contracted land surveyor is required to conduct title research, property valuation and mapping of property boundaries where GWA facilities are located, including the lots which are not registered under GWA's name.	

MAPPING MC 05-02	**Island Wide Survey PH II -** **(Duenas, Camacho & Ass.)**	**Start Date:** August 30, 2017
78% complete	**Activities/Notes:** First set of land registration maps (5): DCA performing field survey. Second set (20): 20 maps signed by the Governor of Guam.	**Completion Date:** December 2019 - Request for extension sent to GM 10/29/2019 – due to myriad of reasons, extended periods of inclement weather, delays in DLM Survey review and approval of property maps and changes of additional scope of survey work.
	Survey services	
Project Description:	The work performed under this project procurement shall consist of a professional land surveyor conducting field work to mark corners of existing government properties as a means of severing out portions of the larger property to be deeded to GWA. Surveyor shall also prepare all necessary maps and documents for recording at DLM.	

G. Permits Section

PERMITS
MONTHLY REPORT 2020

	2020												
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Building Permit	23	22	23										68
Occupancy Permit	6	31	25										62
New Installation	4	17	15										36
Sewer Application	0	1	4										5
Sewer Inspection	0	0	1										1
Private Utility Acceptance	0	0	0										0
Relocation of Water Meter	0	2	0										2
Tapping-Water	1	5	3										9
Tapping-Sewer	1	5	3										9
Clearance-Water	14	10	20										44
Clearance-Sewer	14	10	20										44
Highway Encroachment	36	5	20										61
Verification of Utilities	6	6	1										13
Fire Flow Test	0	3	0										3
Schedule Water Outage	0	0	0										0

NOTE: Completed workorders for each calendar month are reported.

H. USEPA SRF Project Status Report

United States Environmental Protection Agency State Revolving Funds (USEPA SRF)

- Projects listed below that are noted to be in the procurement phase will follow the "Percentage Key" below.

  Percentage Key:

100%	Approved by GM
99%	Signature required from either Accounting/Legal/GM
98%	Processing engineering service or construction contract (with legal)
95%	Request for CCU approval (GM/engineering)
90%	A/E fee negotiation or contractor bid evaluation (engineering)
80%	Selected A/E or Conducted bid opening (engineering)
70%	Advertised RFP/IFB (engineering)
60%	RFP/IFB Package under legal review
50%	RFP/IFB Package completed (engineering)
Less than 50%	Project Scope of work development in progress

- Red text anywhere indicates a change from the last report.
- Cells highlighted in green indicate contract amount certified and project active.

NOTE: Table below only reflects SRF projects that are still active. All other projects previously shown are on prior reports

	Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount (+) change orders	Contractor	Status as of 04/09/2020
3	Asan-Adelup-Hagatna RT1 Sewer Line Rehabilitation and Replacement	Rehabilitation of sewer lines from the War in the Pacific Asan Park to the Governor's Complex in Adelup. This line is asbestos concrete that is dilapidated and some areas have disintegrated crowns.	Brown & Caldwell	Design	2	12/11/2015	3/30/2017 for Design requirements	$ 1,780,210.00	HDR	HDR assisting as needed. Working with CM to review CCTV, submittals as requested, and any variance requests. Also, Archaeological monitoring through HDR contract. HDR CO for archaeological monitoring and additional construction services services included in March CCU meeting resolutions. This CO will include design services for Phase 2 (Adelup to Hagatna).
				Construction	2	11/9/2018	3/8/2020	$6,275,782.88	InfraTech	Infratech (via Allied Trenchless) completed Cleaning/CCTV for areas they were able to access. HDR reviewing CCTV. Contractor working on point repairs. Challenges with other utilities (GTA and Docomo) ongoing; mainly GTA lines due to conduits. Working on point repair between SMH-18 and 19 now. Replacement of three manholes completed. Installed new 16-inch main replacing 12-inch main. Moving to next point repair. Contractor working on revising TCP for section crossing over to pump station to satisfy DPW to prevent closing down to one lane in both directions. Ongoing while other work is being done. CO3 for additional cleaning, abatement of 14" AC pipe, additional time and cost for traffic control signed and sent to GWA for execution.
				Construction (Phase 2)				$4,000,000.00		Pre-solicitation notice drafted and submitted to GWA.
				CM	2	8/3/2017	3/8/2020	$ 870,610.41	DCA	Working with Contractor on schedule, submittals, responding to RFIs, and assisting in the negotiations of PCO costs.
4	RT2 Agat War in the Pacific Sewer Line Rehabilitation and Replacement	Rehabilitation of a large segment of sewer line fronting the War in the Pacific Park in Agat that has collapsed.	Brown & Caldwell	Design	3	11/17/2015	3/30/2017 for Design requirements	$ 316,681.00	SSFM	Providing designer support during construction. Working on final invoice soon.
				Construction	3	8/31/2017	10/1/2018 (Contractor in LD period)	$4,688,042.38	ProPacific	FOIA request. Currently gathering correspondence records and contract documents. PPBC needs to submit final CCTV and paperwork for review and acceptance of pipe between SMH 2 through 10. Work now completed: • Completed coating and manhole rehab • Completed Pavement/asphalt restoration and hydro seeding • GTA issues/manhole installation Remaining work to do: • Inside drop for SMH-4 and 11 • Other punch list items Submitted CO to resolve excess excavated materials, time extension, LD time, and other costs to GWA this month. Processed Invoice 19 (through October) at $215K, and Invoice 20 (through December) for ~$230K.
				Construction (Phase 2)						B&C working with HDR to prepare bid documents for RT1 Asan-Adelup-Agana PH2.
				CM	3	9/19/2017	10/1/2018	$ 749,950.00	TG Engineers	Assembling close-out documentation.
5	Brown & Caldwell Project Management	Brown & Caldwell to provide program management services and support.	T. Cruz	Design	4	3/24/2015	2/28/2019	$ 2,640,220.00	B&C	Project underway.

	Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount (+) change orders	Contractor	Status as of 04/09/2020
7	Groundwater Wells Rehabilitation (F-3, A-2, A-7, A-12, D-5)	Rehabilitation of existing deep wells and/or in cases where pipe column needs replacing, wells will be re-drilled. The deep wells to be rehabilitated are F-3, A-2, A-7, A-12 & D-5.	Brown & Caldwell	Design	6	5/27/2016	2/28/2018 (for design only)	$ 1,758,247.00	AECOM	Design services during construction on hold until construction IFB is issued
				Construction	4	8/15/2019	8/30/2020			Designer is currently revising plans to reflect new specs and recommendations. Draft to be completed by end of April.
				CM	4	8/15/2019	8/30/2020			RFP advertised on July 30th, closing date August 16th. Pending notice of award. Negotiations have been attempted between GWA and the most qualified consultant, SSFM, for an acceptable and agreed fee proposal. Third Revised Fee Proposal (No.3) is expected by Friday, 03/13/2020.
8	Tumon Sewer Hot Spots	Investigation, evaluation, and repair of possible solutions, to long plaguing issues where sewer overflows are known to occur in Tumon San Vitores.	Brown & Caldwell	Design	7	6/24/2016	10/30/2017 for design only	$ 572,089.00	TG Engineers	TGE to provide engineering services during bid process.
				Construction	See Project 15	12/1/2018	12/31/2019	See Project 15	See Project 15	See Project 15
				CM	See Project 15	5/31/2019	5/31/2020	See Project 15	Am Orient	Procurement 100%: Contract fully executed. CM services to be on hold until bidding restarted.
12	RT4 Relief Sewer Line Rehabilitation and Replacement	Rehabilitation of sewer lines that are located from Agana McDonalds to Marine Drive that have been known to overflow due to structural issues.	Brown & Caldwell	Design	9	3/1/2016	4/22/2017	$ 794,000.00	AECOM	AECOM assisting as needed. Submitted CO for AMDRP revision and additional funding for monitoring.
				Construction	5	9/3/2018	6/30/2020	$ 3,998,688.00	Insituform	Insituform/Mocon completed all CIPP and post-CCTV. Contractor requested CO for reinstating 4 unidentified service connection. Need for service connection "top hats" likely to prevent infiltration at reinstatements below groundwater level. CCU approval needed for Change Order #5 to increase contingency authorization.
					6	9/25/2018	6/30/2020	$ 3,407,848.00	ProPacific	PPBC working on manhole rehab. Currently an issue with infiltration between pipe and liner entering the manholes, which Insituform has said they will fix. Finished 18" intertie and new SMH-6901A. Working on installation of new pipe between SMH-6901A to the upstream SMH-6901. Submitted CO1 (193 days for $276,760.19) for time extension and associated costs, mainly due to permitting delays, work hour time restrictions, additional traffic control requirements, and coordination. Change Order No. 2 – CCU approved.
				CM	6	11/15/2018	12/31/2019	$ 702,678.13	EMPSCO	Working with contractors on schedules, submittals, permitting, and contractor's request for additional time and costs. Also working with contractors in the field.

	Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount (+) change orders	Contractor	Status as of 04/09/2020
13	Groundwater Wells Rehabilitation (D-3, D-17, D-18, D-22, M-9)	Rehabilitation of existing deep wells and/or in cases where pipe column needs replacing will be re-drilled. D-3, D-17, D-18, D-22, and M-9.	Brown & Caldwell	Design				*The design was previously completed under bond funding.*		
				Construction	7	8/19/2016	3/30/2018 (completion date under analysis)	$ 6,120,353.00	Pacific Rim	Final Invoice paid on 09/20/2019. Record drawings are complete. Final Documents have been turned over to GWA. This project is completed.
				Const. Mgmt	7	3/22/2016	3/30/2018 (completion date under analysis)	$ 943,361.00	EA	Submitted final invoice to GWA. Finance requested additional documentation which is not typical of closeout for CM. Working with Finance. This project is completed.
14	Southern SSES Sewer Rehabilitation (Baza Gardens-Talofofo)	Rehabilitation of segments of sewer lines in Windward Hills, Talofofo area where the Sanitary Sewer Evaluation Study recommends rehabilitation.	Brown & Caldwell	Design				*The design was previously completed under bond funding.*		
				Construction	8	8/2/2016	Due to issue related to Santa Rita sewer project completion under analysis.	$ 1,189,815.00	ProPacific	Santa Rita • 401C application submitted to GEPA on 8/12/19. PPBC contracting DCA to perform services. DCA and DoAG to survey site on 3/17/20, but due to GovGuam shut down, it has been postponed. • Federal Consistency submitted approved 11/25/2019. • SHPO – need AMDP; GWA and BC reached out to multiple archaeologists, no success. • NWP delivered to USEPA for submission on 10/24/19 (included biological assessment and AMDP from Phase I). Awaiting wetland delineation map. • GWA prepared legal easement document. Under Guam AG review. • Final design documents received March 16. BC sent comment to PPBC. Baza Gardens/Talofofo • PPBC completed work for Change Order 4 on 11/04/2019 ($3,161.52). Will process invoice this week. • Requesting change order for unanticipated ground water management (~$1,200). • Awaiting photos to process payment.
				CM	8	7/29/2016	5/28/2017	$ 425,756.09	EMPSCO	Will start close out process once invoice is processed. Pending PPBC submittal of construction photos. Negotiated Change Order for additional CM services covering project closeout amounts to $6,067.66. Change Order executed by GWA on 03/28/2019 and transmitted to CM on 03/29/2019. A deductive change order will be issued to PPBC for the final amount of this change order after all CM services are complete.
15	Tamuning Sewer Hot Spots	Sewer rehabilitation for lines at Winner Apartments, Segund Leon Guerrero, and behind Guam Premium Outlets.	G. Gattoc	Design	10	9/9/2016	10/31/2017 (for design only)	$ 663,629.00	TG Engineers	TGE to provide engineering services during bid process.
				Construction	9	1/30/2020	12/31/2020	$ 1,093,955.87	Ian Corporation	Contractor is still working on material submittals and permit clearances. Building permit application put on hold by Guam EPA. Pending sewer bypass plan and erosion control plan.
				CM	9	3/31/2019	3/31/2020	$ 531,000.75	Am Orient	CM acknowledged Notice to Proceed (NTP).

	Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount (+) change orders	Contractor	Status as of 04/09/2020
16	Talofofo Sewer Pump Stations (4 stations)	Design and construction of 4 sewer lift stations in the Talofofo village where sewer lines are installed but never completed.	J. Miller	Design (for Talofofo and Chalan Pago PS)	11	8/17/2016	11/30/2017	$ 493,818.86	EMPSCO	Design of Talofofo Lift Stations • Final Design completed June 2018. Design of Chalan Pago Wastewater Pump Station • CO-03 regarding Biological Assessment update. Survey is in progress. • EMPSCO finalizing design and bid documents. On hold due to review of GPA's diesel fuel capacity requirements. • GWA to address EMPSCO's concerns of the manhole rehabilitation portion of the project. This portion of the design was conducted by GWA, not the designer.
				Construction	10	12/27/2018	4/27/2020	$ 2,411,418.00	Giant Const.	Ladera 1: Electrical work ongoing. CMU Wall structural work complete. Wet well hopper slopes completed. Wet well plastering to be completed. Tenorio: Electrical work ongoing. CMU Wall structural work complete. Wet well hopper slopes completed. Wet well plastering to be completed today. Taitague: Giant was able to expose enough of the GTA lines to move slack away from construction work. Wet Well, Valve Vault, and Electrical Handhole structural work ongoing. Ladera 2: 4" Electrical work ongoing. CMU Wall structural work complete. Wet well hopper slopes completed. Wet well plastering to be completed. Ayuyu: Electrical work ongoing. CMU Wall structural work complete. Wet well hopper slopes completed. Wet well plastering to be completed today. Pumps and electrical/control panels arrived on island 030/4/2020.
				CM		12/1/2018	12/31/2019			GWA Engineering will management construction management tasks.
17	Chalan Pago Sewer Pump Station	Design and construction of sewer lift stations and gravity lines in Scott Laguana, Santa Cruz Street Chalan Pago.	J. Davis	Design		8/17/2016	11/30/2017	*The design will be included with the Talofofo Pump Station design project.*		
				Construction	11	5/15/2019	3/30/2020			• Awaiting execution of CO3 for EMPSCO to update Biological Assessment.
				CM		5/15/2019	3/30/2020			
18	Water Hydraulic Model (SCADA ready instruments to update Model)	Design and construction of instrumentation at key water sites in the Barrigada service area necessary to update GWA Water hydraulic model.	Barbara Cruz	Design	12	8/3/2016	3/15/2017	$ 523,268.00	GHD	Design complete.
			J. Mendiola/G. Yeoh	Construction (Phase 1)	12	8/3/2016	6/30/2020	$ 4,532,000.00	Sumitomo	Project went out to bid October 2019. Contract with SMCC was approved by the CCU on January 28, 2020. PUC Notification sent out on 03/05/2020. Contract agreement sent out to SMCC on the week of03/09/2020.
				CM		6/15/2019	6/30/2020			
23	Project Advertisement	Each IFB or RFP requires advertising	Engineering/ Procurement	MISC	1			$ 25,172.50	PDN/Post	On-going

	Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount (+) change orders	Contractor	Status as of 04/09/2020
24	Dungca Beach Sewer Improvements		GWA CIP Engr	Design						EPA approved PIP, GWA Engineering preparing RFP documents for advertising.
25	Hagatna Sewer Pump Station Force Main		GWA CIP Engr	Design						EPA approved PIP, GWA Engineering preparing RFP documents for advertising.
26	Fujita Sewer Pump Station Force Main		GWA CIP Engr	Design						PIP, GWA working on addressing EPA's comments.
27	Well Rehab A-28, M-14, D-15 & F-7		GWA CIP Engr	Design						EPA approved PIP, GWA Engineering preparing RFP documents for advertising.
								$ 65,741,613.02		

GUAM WATERWORKS AUTHORITY

Guam Waterworks Authority

VEHICLE FLEET STATUS
4/2/2020

EQUIPMENT STATUS					SUMMARY						
Description	Number of Equipment	Number of Equipment Available	Number of Equipment Not Available	Percentage	Operational	Operational w/Rprs Pending	Not in Operation-Accident (Docs Pending)	Not in Operation-Assessment Pending	Not in Operation-Repairs Pending	Not in Operation-Vendor Repairs	Recommend Survey
Backhoe (Leased)	3	2	1	67%	2	0	0	0	0	1	0
Dump Truck (Leased)	3	3	0	100%	3	0	0	0	0	0	0
Trailer (Leased)	3	3	0	100%	3	0	0	0	0	0	0
Backhoe	3	2	1	67%	2	0	0	0	0	1	0
Boom Truck	2	0	2	0%	0	0	0	0	0	1	1
Crane	1	1	0	100%	0	1	0	0	0	0	0
Dump Truck	1	1	0	100%	1	0	0	0	0	0	0
Forklift	6	5	1	83%	5	0	0	0	1	0	0
Fuel Tanker	1	1	0	100%	1	0	0	0	0	0	0
Heavy Duty	8	7	1	88%	7	0	0	0	0	0	1
Hoist Rig	1	0	1	0%	0	0	0	0	0	1	0
Jetter	1	1	0	100%	1	0	0	0	0	0	0
Light	154	124	30	81%	120	4	1	4	6	3	16
Mini Backhoe	2	2	0	100%	2	0	0	0	0	0	0
Pumper Truck	1	0	1	0%	0	0	0	0	1	0	0
Skidster	1	0	1	0%	0	0	0	0	1	0	0
Sludge Truck	5	4	1	80%	4	0	0	0	1	0	0
Tractor	2	1	1	50%	1	0	0	0	0	1	0
Tractor Mower	1	1	0	100%	1	0	0	0	0	0	0
Trailer	15	13	2	87%	13	0	0	0	2	0	0
Trencher	1	0	1	0%	0	0	0	1	0	0	0
Vacuum Truck	5	3	2	60%	3	0	0	0	1	1	0
Water Buffalo	2	2	0	100%	2	0	0	0	0	0	0
Water Tanker	5	5	0	100%	5	0	0	0	0	0	0
Compressor	1	1	0	100%	1	0	0	0	0	0	0
Total	252	176	45		176	5	1	5	13	8	18

Guam Waterworks Authority	Date: 4/3/2020 Time:

GUAM WATERWORKS AUTHORITY

WATER DISTRIBUTION FACILITIES REPORT

REVIEWS

TOTAL PUMPS INSTALLED	56	OVERAL AVERAGE	99%
TOTAL PUMPS OPERATIONAL	55	% OF OPERATING PUMPS	98%
TOTAL BOOSTER PUMP STATIONS	27		

Northern District

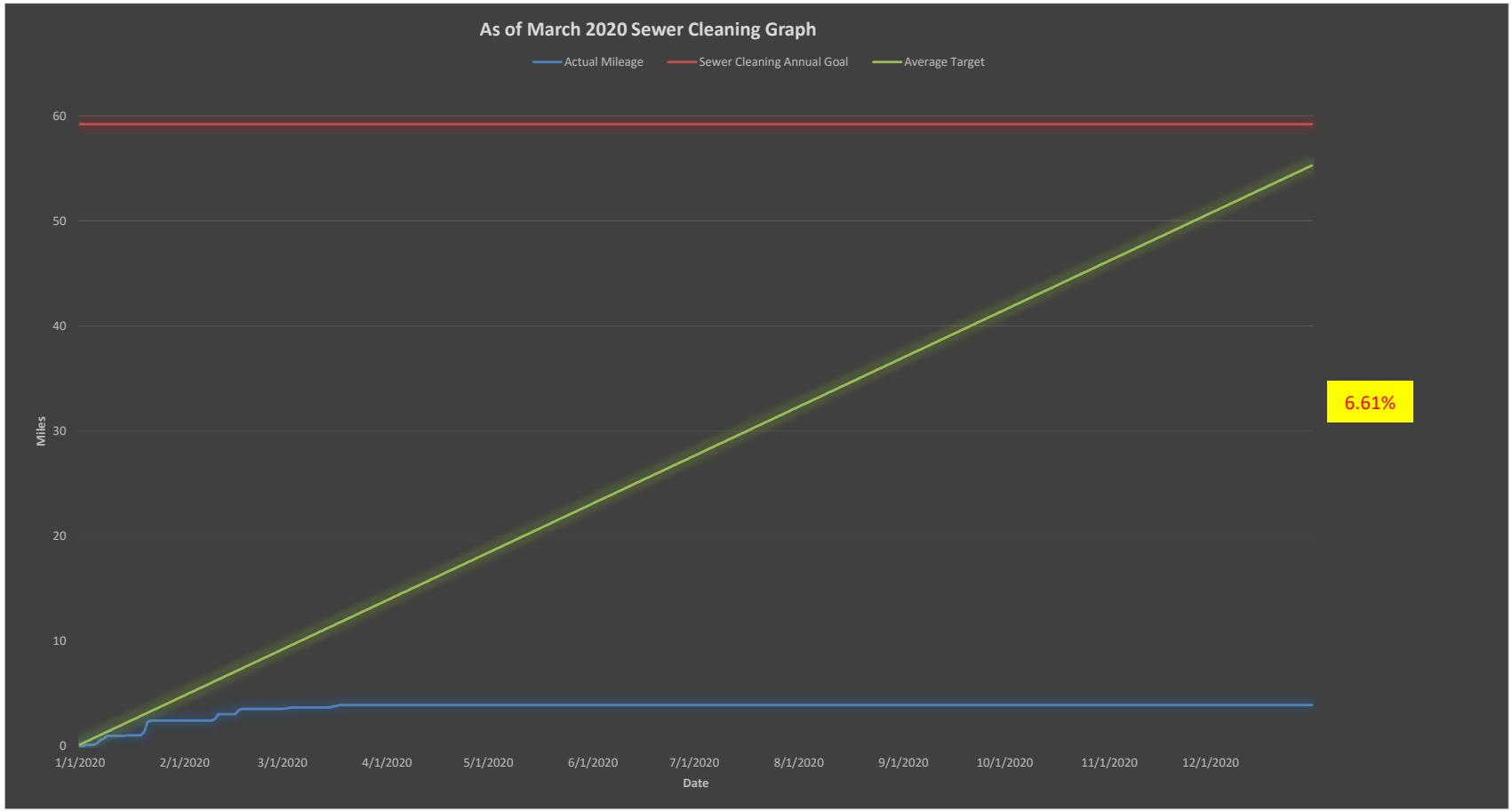
NO:	FACILITY	PUMP HP	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	PUMP AND MOTOR INVENTORY
1	Yigo	30	3	3	100%	OP	A						
2	Gaynero	20	2	2	100%	OP	A						
3	Mataguac	25	2	2	100%	OP	A						
4	Santa Rosa	15	2	2	100%	OP	A						
5	Hyundai	40	2	1	50%	OP	A	Pump # 1 requires pump and motor. Station undergoing renovation with new pumps installed.				Work ongoing. New pumps will be installed.	
6	Chln. Palauan	5	2	2	100%	N/A							
7	Access	60	2	2	100%	OP	A						
8	Agana Heights	30	3	3	100%		A						
9	Nimitz Hill	7.5	2	2	100%	N/A							
10	Adawag	1.5	1	1	100%	N/A							
11	Pale Kiren	1	1	1	100%	N/A							
12	Ulloa/Untalan	1	2	2	100%	OP	A						
13	Latte Heights	15	2	2	100%	OP	A						
	TOTAL = 13		**26**	**25**	**96%**								
pump availability =no of operational pumps/no of pumps*100%													

Central District

NO:	FACILITY	PUMP HP	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	Pago	150 / 100	3	3	100%	0P	A						
2	Brigade	60	3	3	100%	OP	A						
3	Windward Hills	200 / 75	3	3	100%	OP	A	Pump # 1 is operational on manual.		Check valve for pump # 1 leaking.			
4	Santa Rita Spring	40	2	2	100%	OP	A						
5	Santa Ana (Lower)	25	2	2	100%	N/A		Pump # 1 is operational on manual.		Check vavle for pump #1 not working properly.		Station will be renovated for tank inspections.	
6	Camacho	1	1	1	100%	N/A							
7	Tenorio	1.5	1	1	100%	N/A							
	Total=7		**15**	**15**	**100%**								
pump availability =no of operational pumps/no of pumps*100%													

Southern District

NO:	FACILITY	PUMP HP	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	Malojloj Line	125 / 50	3	3	100%	OP	A						
2	Geus	25	2	2	100%	OP	A						
3	Pigua	7.5	2	2	100%	N/A							
4	Toguan	25	2	2	100%	OP	A						
5	WBP-2	25	2	2	100%	OP	A						
6	WBP-1	5	2	2	100%	OP	A						
7	Malojloj Elevated	15	2	2	100%	OP	A						
	Total=7		**15**	**15**	**100%**								
pump availability =no of operational pumps/no of pumps*100%													



SEWER CLEANING	January	February	March	April	May	June	July	August	September	October	November	December	Miles Completed	Miles Remaining
SL-RAT	2.44	1.10	0.40										3.94	*55.26*

5 miles a month required, 59.2 miles a year to complete for 2020 (296 miles to complete in 5 years)

59.2 miles x 5 years = 296 miles
296 miles / 5yrs = 59.2 miles a year required to be completed
59.2 miles /12 months = 4.93 miles a month required to be completed
4.92 miles x 5,280 = 25,977.6ft. / 4 weeks = 6,494.4ft. Per week reqired to be completed
6,494.4ft / 5 days = 1,298.8ft required to be completed daily

Guam Waterworks Authority		Date: 4/9/2020	
		Time:	
REVIEWS			
TOTAL PUMPS INSTALLED	172	OVERAL AVERAGE	91%
TOTAL PUMPS OPERATIONAL	152	% OF OPERATING PUMPS	88%
TOTAL PUMP STATIONS	78		

GUAM WATERWORKS AUTHORITY

WASTEWATER FACILITIES REPORT

Northern District

NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/ AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	SOUTHERN LINK	1	4	2	50%	GPA	A	P#3: Needs Impeller @ Station; P#4: Needs Sensor @ Guam Motor		VFD#4: Awaiting Repairs			
2	FUJITA	1	4	3	75%	GPA	A	P#3: Awaiting Repair @ Station (Bearing Issue);					
3	YPAO	1	2	2	100%	GPA	A	P#2 In for repairs @ JMI; utilizing Machanao pump and volute on line 2.					
4	PASEO DE ORO	1	2	2	100%	GPA	A						
5	HARMON	2	2	2	100%	GPA	A	P#1 new pump installed 03-26-2020					
6	ROUTE 16	1	4	2	50%	GPA	M	P#4 secured, P#3 secured due to flapper in check valve lose.					
7	LATTE DOUBLE TROUBLE	1	2	1	50%	GPA	A	P#2 Awaiting Repairs @ Shop					
8	LATTE SUN RISE	2	2	2	100%	GPA	A	P#2 burnt, new pump installed 02-12-2020					
9	LATTE SUBMARINE	2	2	2	100%	GPA	A						
10	LATTE PLANTATION	2	2	2	100%	GPA	A	P#1 new pump installed					
11	PGD	2	2	2	100%	GPA	A						
12	MACHECHE	2	2	2	100%	GPA	A			contactor keeps tripping. Electrician verification needed.			
13	HAFA ADAI	2	2	2	100%	GPA	A						
14	YPAOPAO	1	3	3	100%	GPA	N/A						
15	PACIFIC LATTE	2	2	2	100%	GPA	A	P#1 awaiting rewinding, new pump installed on 20-10-2020					
16	YIGO	1	3	3	100%	GPA	A			Pending electrical for P#2. (controller)			
17	ZERO DOWN	2	2	2	100%	GPA	A						
18	SANTA ANA	2	2	1	50%	GPA	A	P#2 burnt, in for rewinding					
19	MACHANAONAO	1	2	2	100%	GPA	N/A	P#1 and volute being utilized at Ypao pump station, new pump installed					
20	FEMA 96	2	2	2	100%	GPA	A	Pumps 1&2 removed awaiting rewinding. Utilizing pumps from Hafa Adai and Old Station 13 pump (BIG BLUE)		Pending electrical for P#2. (fuse)			
21	ASTUMBO 1	2	2	2	100%	GPA	A	P#1 removed awaiting repairs, new pump installed 01-04-2020 on line 2					
22	ASTUMBO 2	2	2	2	100%	GPA	A	New pump installed 01-16-2020					
Total	22		52	45	87%								

Central District

NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/ AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	AGANA MAIN	1	4	3	75%	0P	A	Pump 2 in for repairs. Pump 4 on line 2.		Line 4 clogged riser. Awaiting cleaning. Pump 2 secured due to clogged riser.			
2	CHAOT	1	3	2	67%	OP	A	P#2 installed 02.25.2020		P3 secured due to damged breaker			
3	MAMAJANAO	1	3	1	33%	op	A			P1 secured tripped twice			
4	BARRIGADA	1	2	2	100%	GPA	A						
5	BAYSIDE	1	1	1	100%	inop	A						
6	TAI MANGILAO	1	3	3	100%	GPA	A						
7	MONGMONG/TOTO	2	2	1	50%	OP	A	P#2 awaiting repairs.					
8	PAGO DOUBLE	1	3	2	67%	M	A	PUMP #1 IN NEED OF REPLACEMENT (CIP) #1 running old station 19 pump. Pump #3 Installed 02.14.2020 Pump #2 shaft and seal failure, motor burnt, in for repairs.					IFCIP: JOB#A294 for CIP
9	MANGILAO	1	2	2	100%	GPA	A			Sump pump burnt, breaker damaged			
10	PITI	1	2	1	50%	GPA	A	P1 burnt					
11	ASAN	1	2	2	100%	GPA	A						
12	SINAJANA	2	2	2	100%	GPA	A	pump #2 used at asan by-pass		P2 on Standby due to not shuting down on auto			
13	DAIRY ROAD	1	2	2	100%	OP	A	p2 reinstalled					
14	FLORA GARDENS	2	2	2	100%	INOP	A						
15	ORDOT	2	2	2	100%	OP	A						
16	CHALAN PAGO #5	2	2	2	100%	OP	A						
17	COMMERCIAL PORT	1	3	3	100%	OP	A	P#3 Secured at request of Stuart.					
18	CHALAN PAGO #3	2	2	2	100%	OP	A						
19	CABRAS ISLAND	1	2	2	100%	PORTABLE	M						
20	ALUPANG COVE	1	2	2	100%	OP	A						
21	MAITE EJECTOR	1	2	2	100%	GPA	A						
22	TOTO GARDENS	2	2	2	100%	NONE	A	pump 2 awaiting rewinding, new pump installed.		P2 removed by maint			
23	NAMO	2	1	1	100%	OP	A						
24	CASIMERO	2	2	1	50%	PORTABLE	A	P#1 awaiting rewinding at RCG					
25	LEYANG	2	2	2	100%	OP	A						
26	SAGAN BONITA 1	2	2	1	50%	OP	A	P1 burnt removed by maint.					
27	SAGAN BONITA 2	2	2	2	100%	OP	A						
28	FADIAN	2	2	2	100%	OP	A						
29	DERO ROAD	2	2	2	100%	OP	A			P#2 stand by, not shutting down on auto			
Total	**29**		**63**	**54**	**86%**								

Southern District

NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/ AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	GAAN #1	1	4	3	75%	Op	MAN	2-20-20 P-4 removed by maintenance crew and delivered to JMI for testing due to pump is single phasing. After testing pump @ JMI the windings was determined good. Victor Jardel and crew made an assessment and found that in order to determined where the short is located they would need access to the J-Box that is located 30ft. high. Vic will be working on getting scaffolding.	20-02-1287	UST REPAIRS REQUIRED TO LEAK DETECTION SYSTEM. QUOTATION RECEIVED FROM USSI $11,507.13 FOR REPAIRS. **OR#35880 (2-28-20)**			
2	PUMP STATION #11	1	2	2	100%	INOP	AUTO						
3	PUMP STATION #12	2	2	2	100%	OP	AUTO						
4	PUMP STATION #14	2	2	2	100%	OP	AUTO					As of 5-21-19 was informed that pump#1 unit is at washland pending rewind. *6-7-19 As per P. Castro pump unit has been push back for more critical pump rewinds. He also stated that this station has been running on a one pump operation due to electrical upgrades*	10-16-19 was informed by L. Mantanona via-email that request for repairs will be re-inputted to attain a OQ.
5	PUMP STATION #15	2	2	2	100%	OP	AUTO			Electrical:Pumps Not on Alternation	WO#20-03-0565		Generator Radiator Leaking Coolant ,GPA Was Informed.
6	PUMP STATION #16	2	2	2	100%	OP	AUTO						
7	PUMP STATION #17	2	2	2	100%	OP	AUTO						
8	PUMP STATION #18	2	2	2	100%	OP	AUTO						
9	INARAJAN MAIN	1	2	2	100%	OP	AUTO						
10	INARAJAN LIFT	1	2	2	100%	OP	AUTO						
11	TALAFOFO	1	2	2	100%	OP	AUTO	1-17-20 Electricians determined that the sump pump is grounded and was recommended to be replaced. Entered work order into Lucity requesting maintenance to replace.	SUMP PUMP 20-01-0733	6-6-19 Exhaust blower for wet well is defective and needs replacement. Requested for electricians to relocate the existing blower unit at the old Agat treatment plant wet well and install it at Talofofo.		11-5-19 $10,140.00 New M.W. ventilation repair quotation was sent to Mary. All ventilation ducts needs to be fabricated and installed.	
12	PAGACHAO	2	2	2	100%	NONE	NA						
13	CHALIGAN	2	2	2	100%	Op	MAN/INOP			Requesting for electricians to make assessments to ventilation system to make it operational.)	(Vent- 19-12-0390)	12-23-19 Fred is working on getting a lift to be able to go to the roof top to make assessments on the motor.	
14	EJECTOR #2	2	2	1	50%	PORTABLE /INOP	NA	Air hose to compressor#1 needs to be replaced.					
15	EJECTOR #3	2	2	2	100%	PORTABLE /INOP	NA						
16	EJECTOR #4	2	2	2	100%	PORTABLE /INOP	NA						
17	EJECTOR #5	2	2	2	100%	PORTABLE/INOP	NA						
18	EJECTOR #6	2	2	2	100%	PORTABLE/INOP	NA						
19	EJECTOR #7	2	2	2	100%	PORTABLE/INOP	NA						
20	NORTH REYES	2	2	1	50%	PORTABLE/INOP	NA	Pump 1 in for rewinding and new power cable.				As of 5-21-19 was informed that pump#1 unit is at washland pending rewind. *6-7-19 As per P. Castro pump unit has been push back for more critical pump rewinds. He also stated that this station has been running on a one pump operation due to electrical upgrades*	10-16-19 was informed by L. Mantanona via-email that request for repairs will be re-inputted to attain a OQ.
21	LEYON #3 (DanDan)	2	2	1	50%	INOP	A/INOP	Pump #2 secured due to check valve being defective	Wo#20-03-0908				
22	LEYON #4	2	2	2	100%	OP	A						
23	MTL PUMP STATION	2	1	1	100%	PORTABLE/INOP	NA						
24	Baza P/S	1	3	3	100%	OP	A						
25	Windward Hills	1	3	3	100%	OP	A						
26	Aplacho	1	3	3	100%	INOP	A						
Total	**26**		**56**	**52**	**93%**								

Bypass

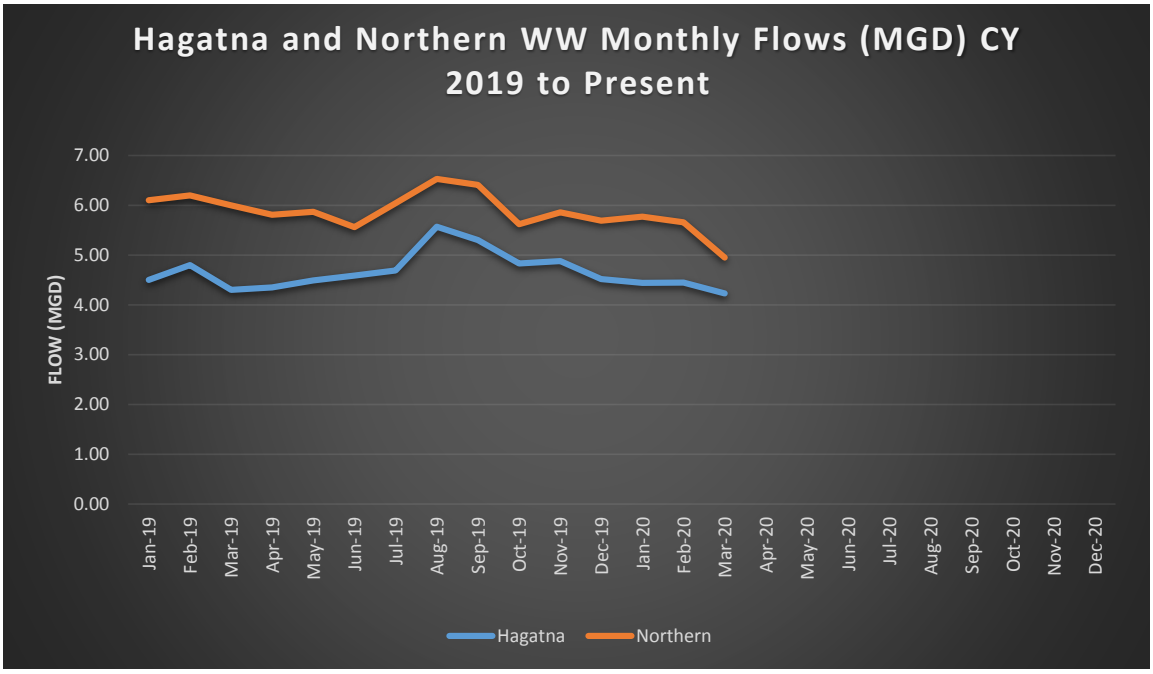
NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/ AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	Asan By-pass	1	1	1	100%			Pump from Sinajana					
Total	**1**		**1**	**1**	**100%**								

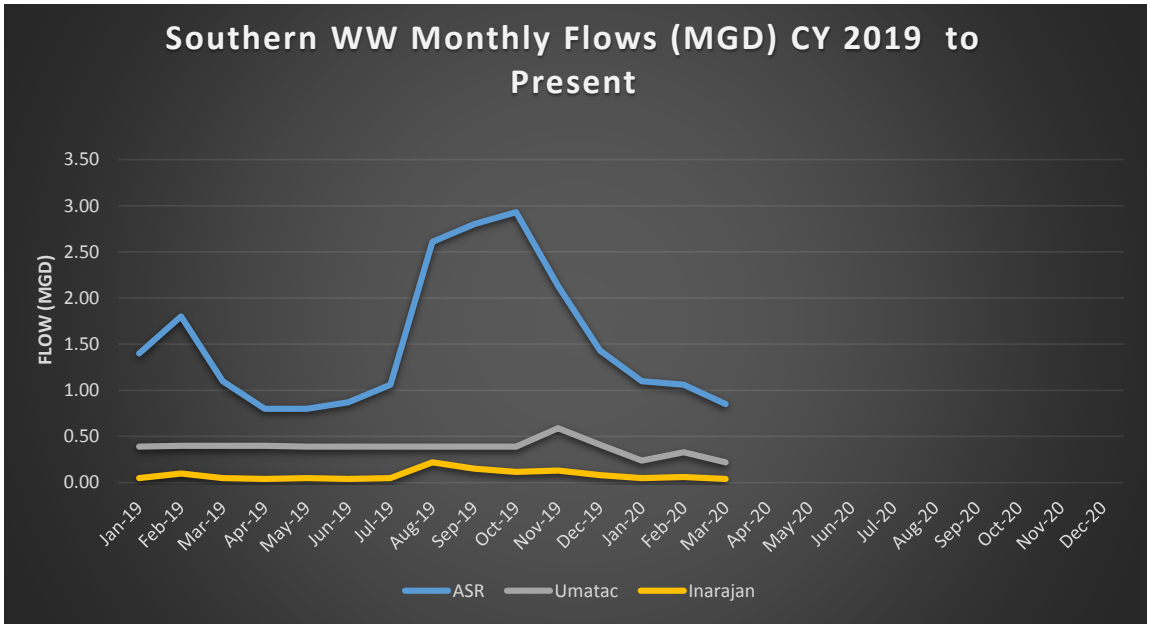
Wastewater Treatment Plant Average Monthy Flows Million Gallons Per Day

2019	Hagatna	Northern	ASR	Umatac	Inarajan
Jan-19	4.50	6.10	1.40	0.39	0.05
Feb-19	4.80	6.20	1.80	0.40	0.10
Mar-19	4.30	6.00	1.10	0.40	0.05
Apr-19	4.35	5.81	0.80	0.40	0.04
May-19	4.49	5.87	0.80	0.39	0.05
Jun-19	4.59	5.56	0.87	0.39	0.04
Jul-19	4.69	6.04	1.06	0.39	0.05
Aug-19	5.57	6.53	2.61	0.39	0.22
Sep-19	5.30	6.41	2.80	0.39	0.15
Oct-19	4.83	5.62	2.93	0.39	0.12
Nov-19	4.88	5.86	2.13	0.59	0.13
Dec-19	4.52	5.69	1.43	0.41	0.08
2019 Average MGD	**4.74**	**5.97**	**1.64**	**0.41**	**0.09**
2019 Total MGY	1,728	2,181	600	150	33

2020	Hagatna	Northern	ASR	Umatac	Inarajan
Jan-20	4.44	5.77	1.10	0.24	0.05
Feb-20	4.45	5.66	1.06	0.33	0.06
Mar-20	4.23	4.95	0.85	0.22	0.04
Apr-20					
May-20					
Jun-20					
Jul-20					
Aug-20					
Sep-20					
Oct-20					
Nov-20					
Dec-20					
2020 Average MGD	**4.37**	**5.46**	**1.00**	**0.26**	**0.05**
2020 Total MGY	1,596	1,993	366	96	18

GWA WWT Flow Report 2019 to Present, prepared by kcog/df, 4/23/2020



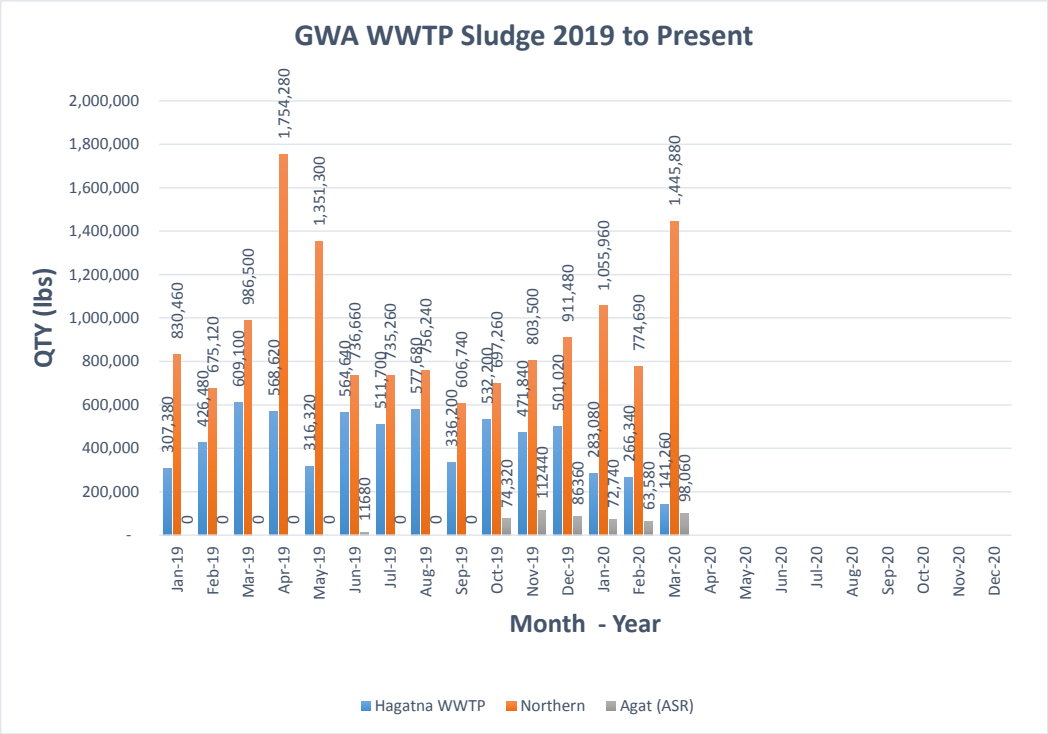


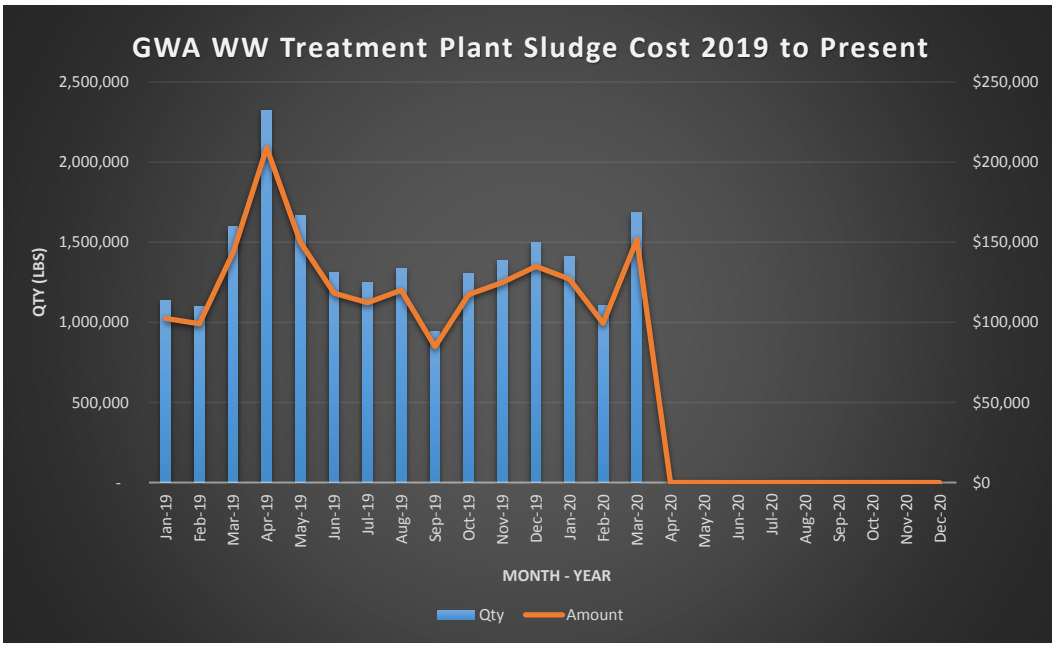
GWA WWT Flow Report 2019 to Present, prepared by kcog/df, 4/23/2020

	Hagatna WWTP		Northern		Agat (ASR)		Hagatna + Northern + Agat	
2019	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Month- Yr	lbs	$	lbs	$	lbs	$	lbs	$
Jan-19	307,380	$27,664	830,460	$74,741	0	$0	1,137,840	$102,406
Feb-19	426,480	$38,383	675,120	$60,761	0	$0	1,101,600	$99,144
Mar-19	609,100	$54,819	986,500	$88,785	0	$0	1,595,600	$143,604
Apr-19	568,620	$51,176	1,754,280	$157,885	0	$0	2,322,900	$209,061
May-19	316,320	$28,469	1,351,300	$121,617	0	$0	1,667,620	$150,086
Jun-19	564,640	$50,818	736,660	$66,299	11680	$1,051	1,312,980	$118,168
Jul-19	511,700	$46,053	735,260	$66,173	0	$0	1,246,960	$112,226
Aug-19	577,680	$51,991	756,240	$68,062	0	$0	1,333,920	$120,053
Sep-19	336,200	$30,258	606,740	$54,607	0	$0	942,940	$84,865
Oct-19	532,200	$47,898	697,260	$62,753	74,320	$6,689	1,303,780	$117,340
Nov-19	471,840	$42,466	803,500	$72,315	112440	$10,120	1,387,780	$124,900
Dec-19	501,020	$45,092	911,480	$82,033	86360	$7,772	1,498,860	$134,897
Grand Total	5,723,180	$515,086	10,844,800	$976,032	284,800	$25,632	16,852,780	$1,516,750

	Hagatna WWTP		Northern		Agat (ASR)		Hagatna + Northern + Agat	
2020	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Month- Yr	lbs	$	lbs	$	lbs	$	lbs	$
Jan-20	283,080	$25,477	1,055,960	$95,036	72,740	$6,547	1,411,780	$127,060
Feb-20	266,340	$23,971	774,690	$69,722	63,580	$5,722	1,104,610	$99,415
Mar-20	141,260	$12,713	1,445,880	$130,129	98,060	$8,825	1,685,200	$151,668
Apr-20		$0		$0		$0	-	$0
May-20		$0		$0		$0	-	$0
Jun-20		$0		$0		$0	-	$0
Jul-20		$0		$0		$0	-	$0
Aug-20		$0		$0		$0	-	$0
Sep-20		$0		$0		$0	-	$0
Oct-20		$0		$0		$0	-	$0
Nov-20		$0		$0		$0	-	$0
Dec-20		$0		$0		$0	-	$0
Grand Total	690,680	$62,161	3,276,530	$294,888	234,380	$21,094	4,201,590	$378,143

Hagatna and Northern WWTP Sludge Report 2019 to present, GWA Operations kcog / df, 4/23/2020





Hagatna and Northern WWTP Sludge Report 2019 to present, GWA Operations kcog / df, 4/23/2020

GWA Utility Services Division
Monthly Status Report
Month ending MAR 2020

FY2020 UTILITY SERVICES DIVISION ACTIVITIES	WEEK ENDING: 03/07/20	WEEK ENDING: 03/14/20	WEEK ENDING: 03/21/20	WEEK ENDING: 03/28/20	WEEK ENDING: 04/04/20	MAR 2020 MONTHLY TOTAL	WEEKLY AVERAGE MAR 2020	PREVIOUS MONTH WEEKLY AVERAGE FEB 2020	PREVIOUS MONTH FEB 2020 MONTHLY TOTAL
Collections Activities:									
I. Number of accounts cut for nonpayment:	39	68	8	0	0	115	23	76	305
II. Number of accounts restored for nonpayment:	44	57	25	4	0	130	26	60	240
III. Number of No water reports responded to:	3	4	25	3	11	46	9	5	18
IV. Number of Secure/Unsecure valve reports responded to:	9	4	0	0	0	13	3	2	6
V. Number of Verify reads responded to:	3	2	0	0	0	5	1	1	3
VI. Number of new pay plans negotiated for active accounts:	188	206	79	16	0	489	98	197	789
VII. Number of active pay plans negotiated and ongoing:	818	860	727	0	0		481	819	
VIII. Number of inactive accounts with a payment arrangement:	0	0	0	0	0		0	0	
IX. Number of broken payment plans:	99	87	98	128	0	412	82	74	297
Customer Service Activities (lobby visits):									
A. GBN Public Service Building – Fadian									
i. Total Customers Assisted:	222	280	0	0	0	502	100	255	1275
ii. Total Abandoned Requests:	11	10	0	0	0	21	4	10	52
iii. Average Wait Time:	6 minutes	6 minutes	0 minutes	0 minutes	0 minutes		2.4 minutes	7.6 minutes	
iv. Average Service Time:	11 minutes	14 minutes	0 minutes	0 minutes	0 minutes		5 minutes	12.2 minutes	
v. Purpose of lobby visit:									
1. Apply for water:	40	73	0	0	0	113	23	45	227
2. Restore water cut for non payment:	8	18	0	0	0	26	5	15	73
3. Terminate Water:	14	22	0	0	0	36	7	12	59
4. Copy of Bill:	30	28	0	0	0	58	12	18	92
5. Billing Dispute:	46	64	0	0	0	110	22	48	241
6. Billing Dispute follow up:	0	0	0	0	0	0	0	0	0
7. General Questions & Other:	80	53	0	0	0	133	27	111	556
8. Report a water leak:	0	0	0	0	0	0	0	0	2
9. Report water theft:	0	0	0	0	0	0	0	0	0
10. Payment Arrangement:	11	30	0	0	0	41	8	11	55
B. Julale Satellite Office – Hagatna									
i. Total Customers Assisted:	271	272	0	0	0	543	109	255	1275
ii. Total Abandoned Requests:	16	16	0	0	0	32	6	18	89
iii. Average Wait Time:	5 minutes	5 minutes	0 minutes	0 minutes	0 minutes		2 minutes	5.6 minutes	
iv. Average Service Time:	7 minutes	8 minutes	0 minutes	0 minutes	0 minutes		3 minutes	7.4 minutes	
v. Purpose of lobby visit:									
1. Apply for water:	58	45	0	0	0	103	21	52	258
2. Restore water cut for non payment:	14	16	0	0	0	30	6	10	52
3. Terminate Water:	18	37	0	0	0	55	11	22	110
4. Copy of Bill:	84	80	0	0	0	164	33	69	344
5. Billing Dispute:	60	73	0	0	0	133	27	79	393
6. Billing Dispute follow up:	4	1	0	0	0	5	1	3	16
7. General Questions & Other:	20	33	0	0	0	53	11	23	116
8. Report a water leak:	1	1	0	0	0	2	0	0	1
9. Report water theft:	0	0	0	0	0	0	0	0	1
10. Payment Arrangement:	45	47	0	0	0	92	18	35	176
C. Upper Tumon Satellite Office – Upper Tumon									
i. Total Customers Assisted:	296	336	28	0	0	660	132	326	1629
ii. Total Abandoned Requests:	19	17	0	0	0	36	7	22	112
iii. Average Wait Time:	9 minutes	16 minutes	3 minutes	0 minutes	0 minutes		5.6 minutes	7.8 minutes	
iv. Average Service Time:	10 minutes	8 minutes	8 minutes	0 minutes	0 minutes		5.2 minutes	10.4 minutes	
v. Purpose of lobby visit:									
1. Apply for water:	80	62	4	0	0	146	29	77	387
2. Restore water cut for non payment:	13	30	1	0	0	44	9	25	125
3. Terminate Water:	25	24	1	0	0	50	10	28	142
4. Copy of Bill:	51	74	10	0	0	135	27	59	295
5. Billing Dispute:	69	86	7	0	0	162	32	77	386
6. Billing Dispute follow up:	8	4	0	0	0	12	2	3	17
7. General Questions & Other:	48	58	1	0	0	107	21	32	158
8. Report a water leak:	0	0	0	0	0	0	0	1	3
9. Report water theft:	0	0	0	0	0	0	0	0	2
10. Payment Arrangement:	46	40	5	0	0	91	18	45	223

GWA Utility Services Division
Monthly Status Report
Month ending MAR 2020

FY2020 UTILITY SERVICES DIVISION ACTIVITIES	WEEK ENDING: 03/07/20	WEEK ENDING: 03/14/20	WEEK ENDING: 03/21/20	WEEK ENDING: 03/28/20	WEEK ENDING: 04/04/20	MAR 2020 MONTHLY TOTAL	WEEKLY AVERAGE MAR 2020	PREVIOUS MONTH WEEKLY AVERAGE FEB 2020	PREVIOUS MONTH FEB 2020 MONTHLY TOTAL
Customer Service Activities (Electronic):									
i. Emails Recieved:									
1. customers@guamwaterworks.org:	59	46	118	209	293	725	145	49	197
Request type (email):									
a. Apply for water:	3	1	35	80	107	226	45	2	8
b. Terminate Water:	2	3	11	17	38	71	14	3	12
c. Copy of Bill:	2	3	5	3	3	16	3	4	15
d. Billing Dispute & follow up:	11	6	6	21	15	59	12	9	37
e. General Questions & Other:	29	20	36	54	85	224	45	24	94
f. Report a water leak:	4	4	6	5	2	21	4	4	15
g. Report water theft:	0	0	0	0	0	0	0	0	1
h. Online services inquiry:	8	9	19	29	43	108	22	4	15
2. gwaservesme@guamwaterworks.org (realtors and	1	0	0	0	0	1	0	0	0
ii. Emails Replied (both):	61	29	93	159	221	563	113	33	132
Call Center Activities:									
i. Calls Recieved:	1415	1364	1085	1550	2100	7514	1503	1504	6017
ii. Calls Immediately Answered:	723	690	799	764	909	3885	777	696	2783
iii. Calls Abandoned:	59	74	39	64	89	325	65	71	283
iv. Calls Handled by Voice mail:	606	600	247	722	1102	3277	655	738	2950
v. Average duration of call:	3 minutes	4 minutes	4 minutes	5 minutes	4 minutes		4 minutes	4 minutes	
vi. Breakdown by request type:									
1. Apply/Terminate info:	15	5	34	54	93	201	40	18	72
2. Automated Telphone Call:	21	5	2	18	0	46	9	80	321
3. Balance Inquiry:	23	20	23	77	126	269	54	76	302
4. Call Back:	1	2	1	3	2	9	2	28	111
5. Dispatch:	0	1	0	18	18	37	7	19	75
6. Dispute:	2	2	1	6	9	20	4	2	8
7. Follow-up:	9	8	4	0	10	31	6	51	203
8. General Questions & Other:	56	34	117	176	203	586	117	180	721
9. GWA Staff:	30	9	23	7	11	80	16	67	268
10. No Water:	12	11	18	3	11	55	11	23	90
11. Online/Phone App Help:	3	3	12	60	112	190	38	16	62
12. Pay by Phone:	50	25	120	200	322	717	143	97	387
13. Pay Plan:	12	10	17	19	26	84	17	70	279
14. Restore Non-payment:	1	1	8	2	1	13	3	9	36
15. Secure/Unsecure Valve:	1	1	6	3	2	13	3	10	38
16. Voice Mail:	0	0	16	0	0	16	3	77	307
17. Water leak:	2	1	3	8	12	26	5	11	42
Bill Dispute & Resolution Activities:									
i. Dispute Resolution:									
1. Number of disputed accounts resolved:	17	32	32	2	3	86	17	25	98
2. Number of disputed accounts under review:	1984	2007	2019	2040	2035		2017	2013	
Data Entry of Completed Field work in CIS:									
i. Document Control:									
1. Number of field activities posted:	240	250	161	0	5	656	131	375	1499
2. Number of field activities pending:	941	1013	1037	1163	1300	5454	1091	696	2783
Field Response Activities:									
I. Number of field activities received:	269	260	126	62	137	854	171	243	971
II. Number of field activities completed:	275	185	126	62	137	785	157	285	1138
III. Number of field activities pending field action:	3	2	0	0	0	5	1	5	18

GWA Utility Services Division
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FY2020 UTILITY SERVICES DIVISION ACTIVITIES	WEEK ENDING: 03/07/20	WEEK ENDING: 03/14/20	WEEK ENDING: 03/21/20	WEEK ENDING: 03/28/20	WEEK ENDING: 04/04/20	MAR 2020 MONTHLY TOTAL	WEEKLY AVERAGE MAR 2020	*PREVIOUS MONTH* WEEKLY AVERAGE FEB 2020	*PREVIOUS MONTH* FEB 2020 MONTHLY TOTAL
Meter Reading Activities:									
I. Number of meters read:									
A. Electronically Read Meters:	7920	10837	14445	9049	6533	48784	9757	10541	42165
B. Manually Read Meters:	23	38	47	39	9	156	31	35	141
i. Unread meters (Meters scheduled to be read but not read):	22	18	14	30	5	89	18	43	171
ii. Number of data logs received:	16	27	9	12	13	77	15	37	146
iii. Number of data logs retrieved:	14	19	11	9	14	67	13	41	163
iv. Number of data logs pending field action:	0	0	0	0	0	0	0	1	2
v. Communication Errors/Reprogramming requests:	3	0	0	1	1	5	1	2	7
vi. Number of estimated readings (for the week):	29	22	19	28	11	111	22	22	111
vii. Reasons for Estimations:									
1. Cant locate meter:	1	0	0	3	2	6	1	2	6
2. Temporary Obstruction:	0	0	0	0	0	0	0	1	2
3. Vicious Dog:	0	0	0	0	0	0	0	1	2
4. Flooded meter:	0	1	1	0	0	2	0	2	7
5. Corrective action to database requested:	6	3	5	6	2	22	4	6	22
6. Possible changed out meter:	19	17	13	16	4	69	14	38	153
7. Communication/Programming error (code 92's):	2	0	0	1	1	4	1	0	0
8. Other:	1	1	0	2	2	6	1	4	16
a. Leaks detected on customer's private line:	1118	1678	2504	1282	998	7580	1516	1635	6539
b. Reverse Flow Detected:	125	145	162	124	98	654	131	204	817
c. No Usage Detected:	226	284	394	338	218	1460	292	338	1351
d. Tamper Code:	10	14	14	10	5	53	11	11	43
C. Electronic Read Percentage:	99.7%	99.7%	99.7%	99.6%	99.9%		99.6%	99.6%	
Illegal Connection & Unauthorized Use of Water Activities:									
I. Number of Inactive Still Consuming Reports rec'd & investigated:	0	0	1	0	0	1	0	1	4
II. Number of Illegal Connection reports rec'd & investigated:	0	3	0	1	1	5	1	1	2