



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 Public Comments – None

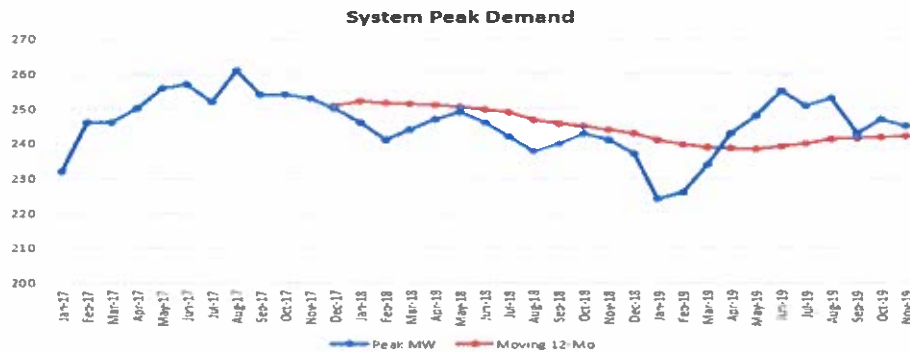
4. GPA

4.1 GM Report

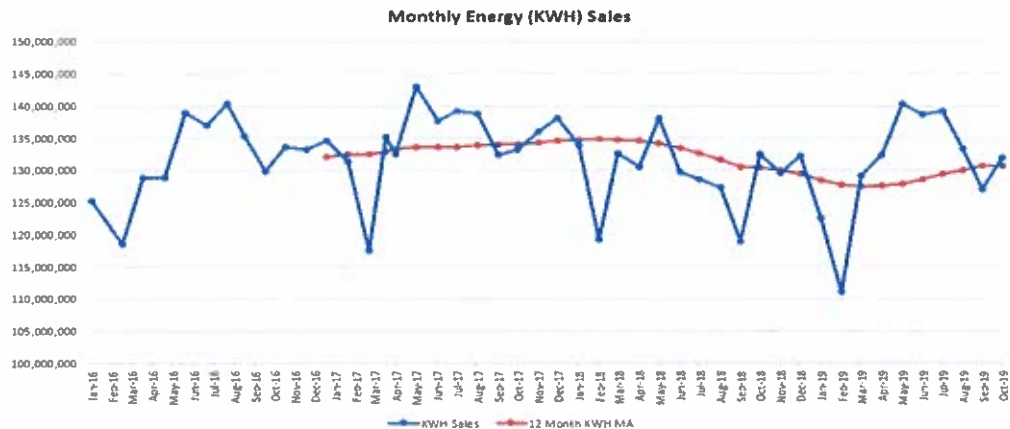
1. **Generation System:** The following is the generation forecast for December 2019:

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:



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
Other Contractual	\$28,278.50	\$85,550.05	\$116,977.50	\$3,025.00		\$233,831.05
Ads & Radio Announcements				\$7,500.00		\$7,500.00
Paid Rebates-Split AC	\$154,700.00	\$557,275.00	\$1,349,825.00	\$1,254,550.00	\$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:

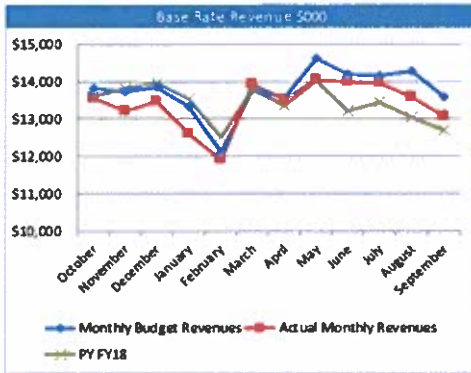
- GPA welcomed on board 18 new apprentices for the T&D division. They are being trained in key difficult to recruit areas such as overhead lines, underground lines, meter and relay, and substation. It is estimated that 46% of T&D employees will be eligible for retirement within the next 10 years. These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

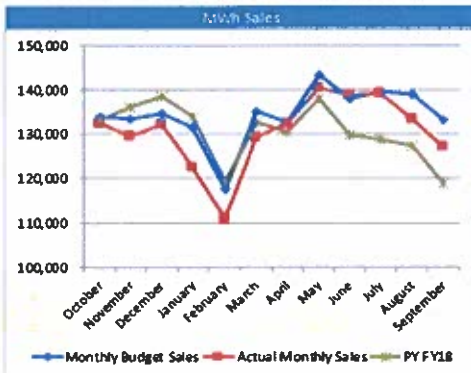
4.2 Financials

September 2019 Monthly Financial Highlights



Through September 30, 2019

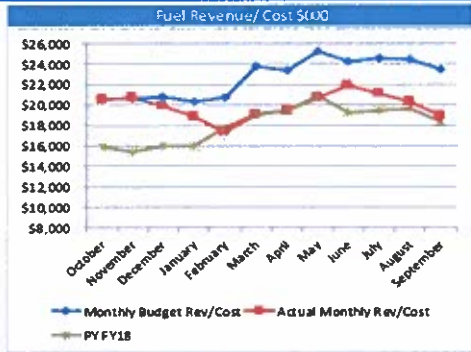
Month	Monthly Budget Revenues \$000	Actual Monthly Revenues	Variance	PY FY18	CY vs PY Variance
October	\$ 13,811	\$ 13,564	\$ (246)	\$ 13,625	\$ (61)
November	13,723	13,203	\$ (519)	13,827	\$ (624)
December	13,833	13,467	\$ (365)	13,968	\$ (501)
January	13,321	12,616	\$ (705)	13,534	\$ (918)
February	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	\$ 169,002	\$ 160,865	\$ (4,137)	\$ 161,010	\$ (145)



Through September 30, 2019

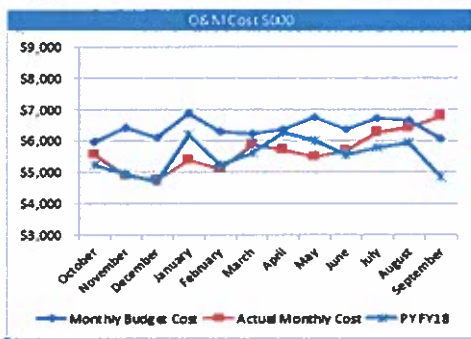
Month	Monthly Budget Sales	Actual Monthly Sales	Variance	PY FY18	CY vs PY Variance
October	133,797	132,489	(1,308)	133,262	(733)
November	133,346	129,537	(3,809)	136,044	(6,506)
December	134,715	132,190	(2,525)	138,587	(6,397)
January	131,547	122,590	(8,958)	133,882	(11,292)
February	117,775	111,159	(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

Month	Monthly Budget Rev/Cost \$000	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)	\$ 217,824	\$ 21,544



Through September 30, 2019

Month	Monthly Budget Cost \$000	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	4,594	(68)
January	6,882	5,399	1,483	6,204	605
February	6,291	5,114	1,177	5,252	138
March	6,231	5,869	362	5,838	(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	5,737	342	4,836	(1,951)
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 be reclassified 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 trueed 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

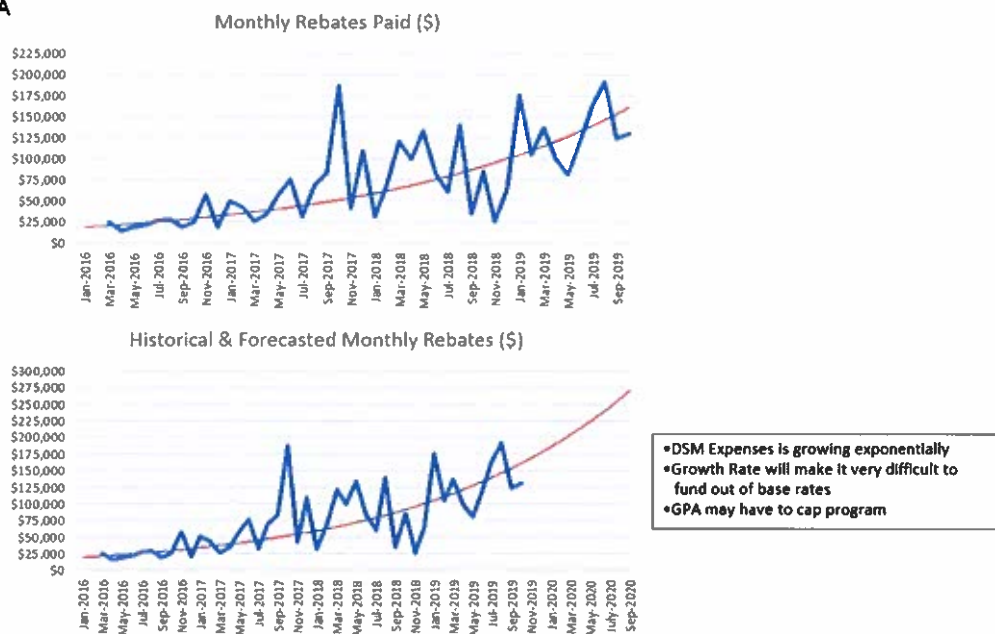


Figure A-1. Historical and Forecast Monthly DSM Rebate Expenses

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 than 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

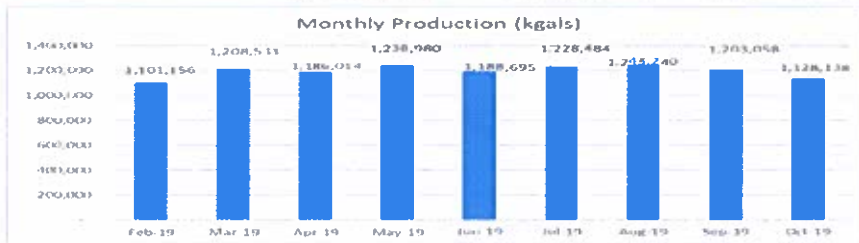
5.1 GM Report

**Operations Update
Production (October 2019)**

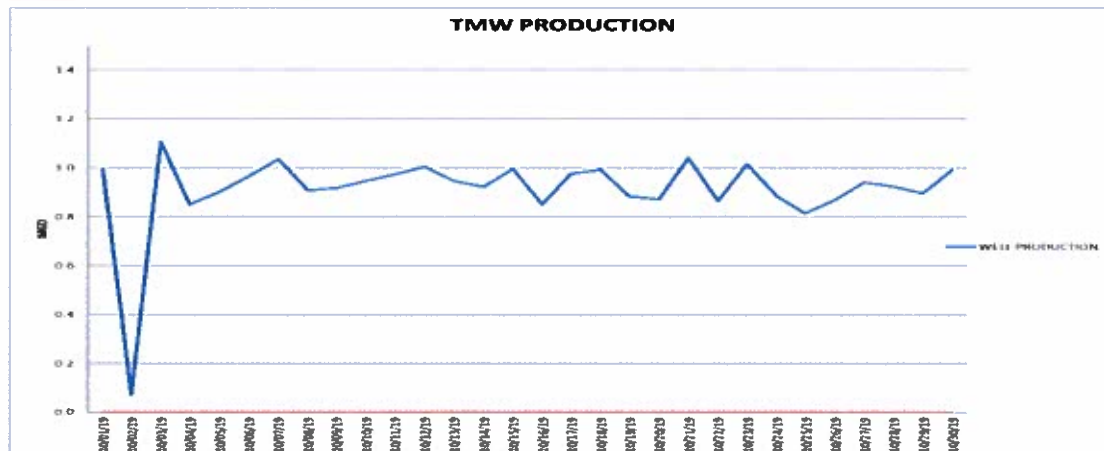
Monthly Production Summary - October 2019		
Deep Wells		36.4 MGD
Active wells =	98 of 120	
Avg days in operation =	31 days	
Total Production =	1,128,608 Kgals	
Springs		0.97 MGD
Avg days in operation =	31 days	
Total Production =	11501 Kgals	
Ugum Surface Water Plant		2.2 MGD
Avg days in operation =	31 days	
Total Production =	69,725 Kgals	
Tumon Maui Well		0.91 MGD
Avg days in operation =	31 days	
Total Production =	28,304 Kgals	
TOTAL	1,176,138 Kgals	39.9 MGD

DW Status as of 10/31/2019	
Active	98
Grounded motor or Pump	0
Failure	0
Out of commission	0
Temporarily Secured	0
Standby	0
TOTAL	120

A25-003-905
A02-A07-A28-005-013-M14-M01-M105
A23-A25-F10
A10-A29-001-020-F16-F18-M12-M17B

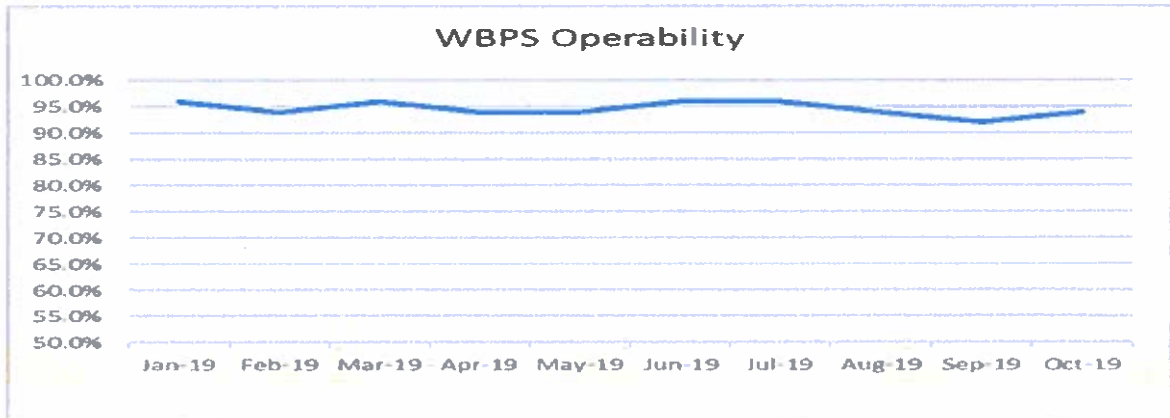


Tumon Maui Well Production (October 2019)

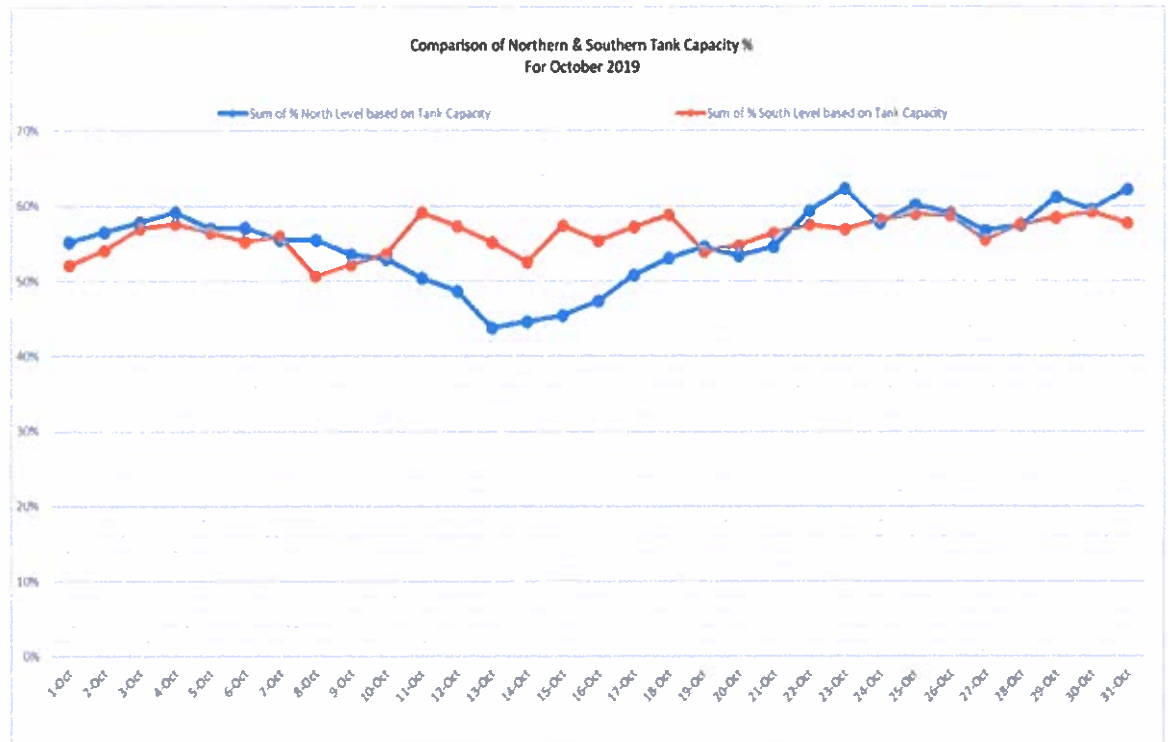


Distribution (October 2019)

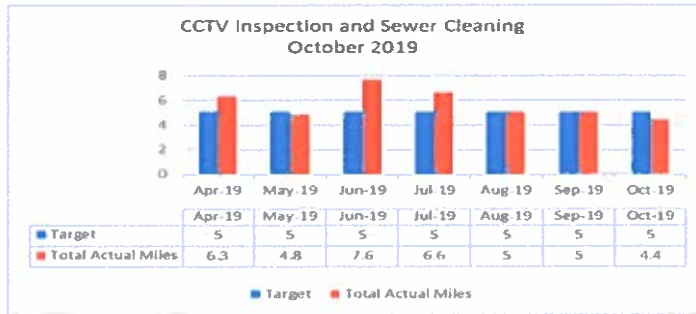
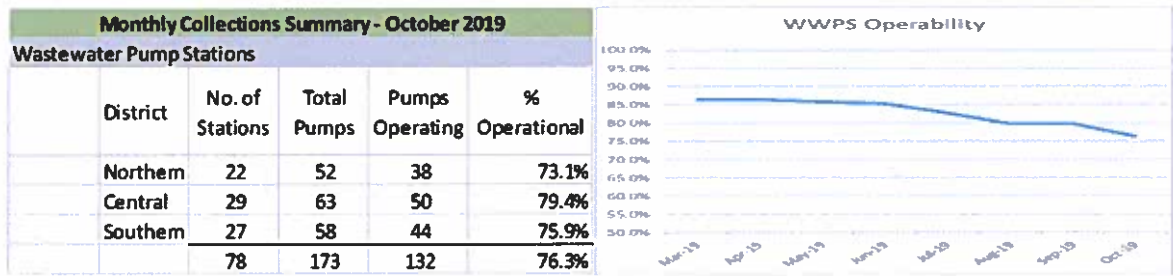
Monthly Distribution Summary - October 2019					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	20	18	90.0%
	Central	7	15	15	100.0%
	Southern	7	15	14	93.3%
		25	50	47	94.0%



Distribution – Tank Levels (October 2019)



Wastewater Collections (October 2019)



Wastewater Collections –Cleaning/Jetting (October 2019)
Agana Heights / Sinajana

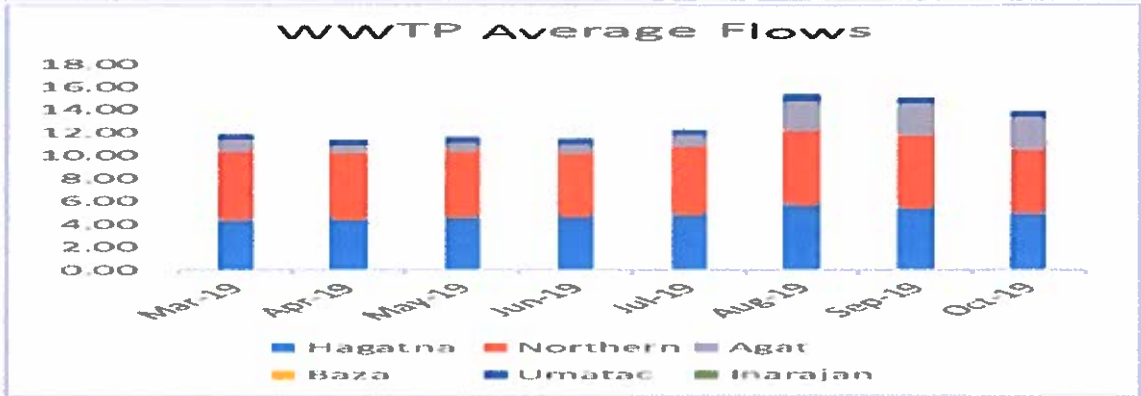


Mongmong-Toto-Maite



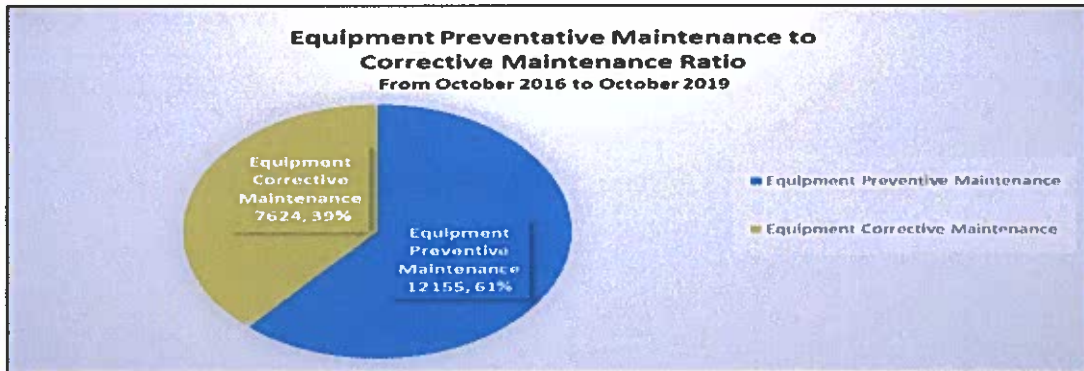
Wastewater Treatment (October 2019)

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

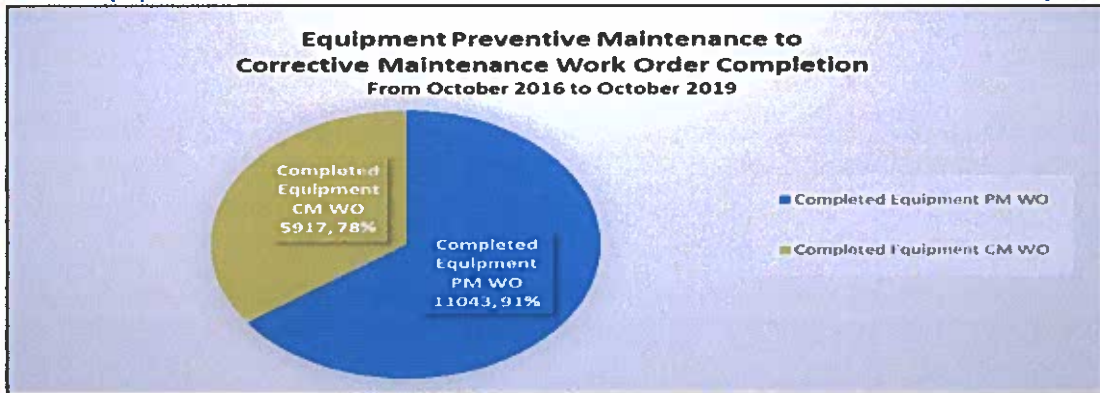


Asset Management (October 2019)

I. Equipment Preventive Maintenance to Corrective Maintenance *Ratio*

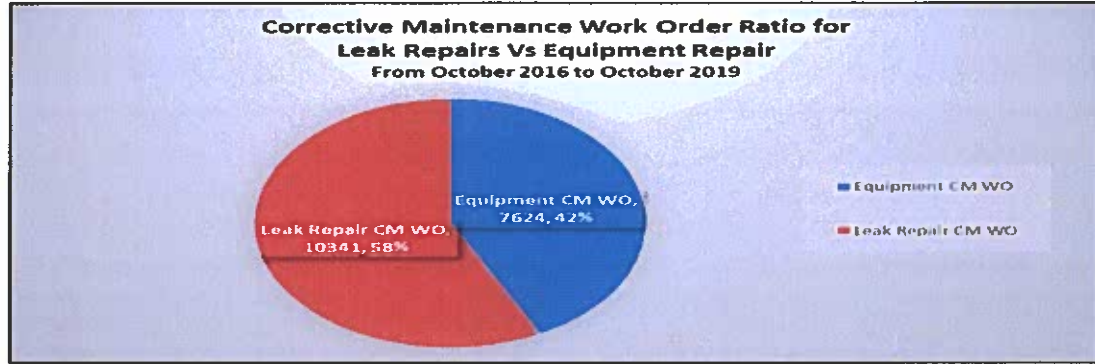


II. Equipment Preventive Maintenance to Corrective Maintenance *Work Order Completion*

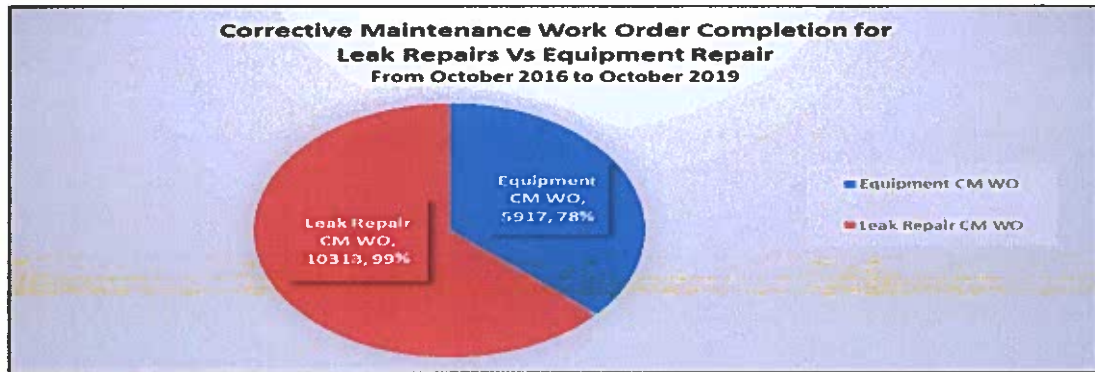


Asset Management (October 2019)

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	

# 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):	194	161	1	1	10	8	7	7	7	7	9	7	
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	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 Report¹ 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%

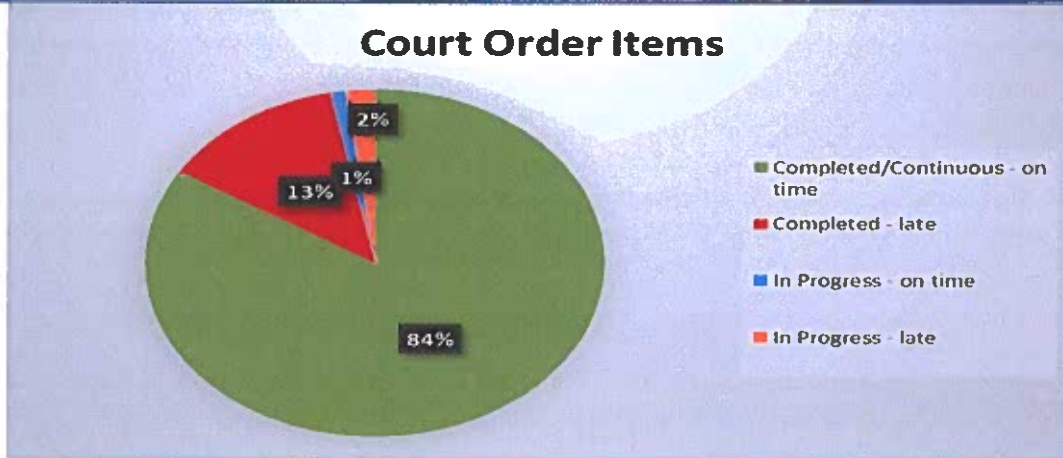
¹ Collections thru November 18, 2019

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, Ordos; 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.)

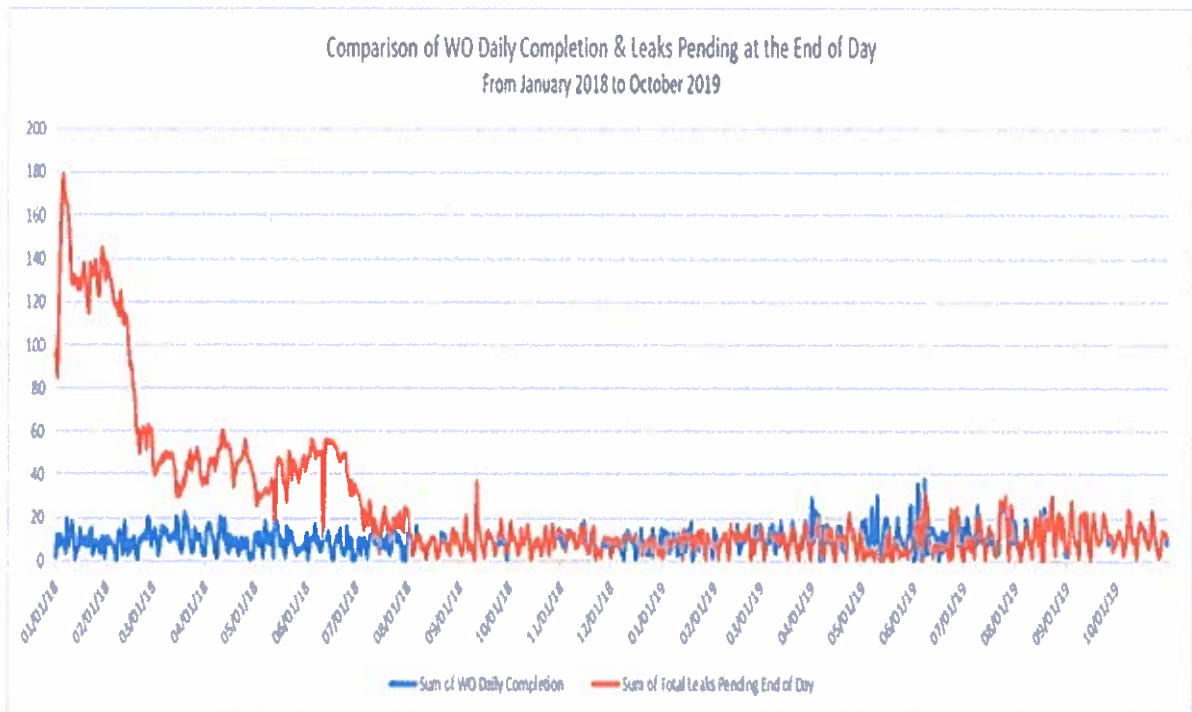
Status Information (for October 2019)

- 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.

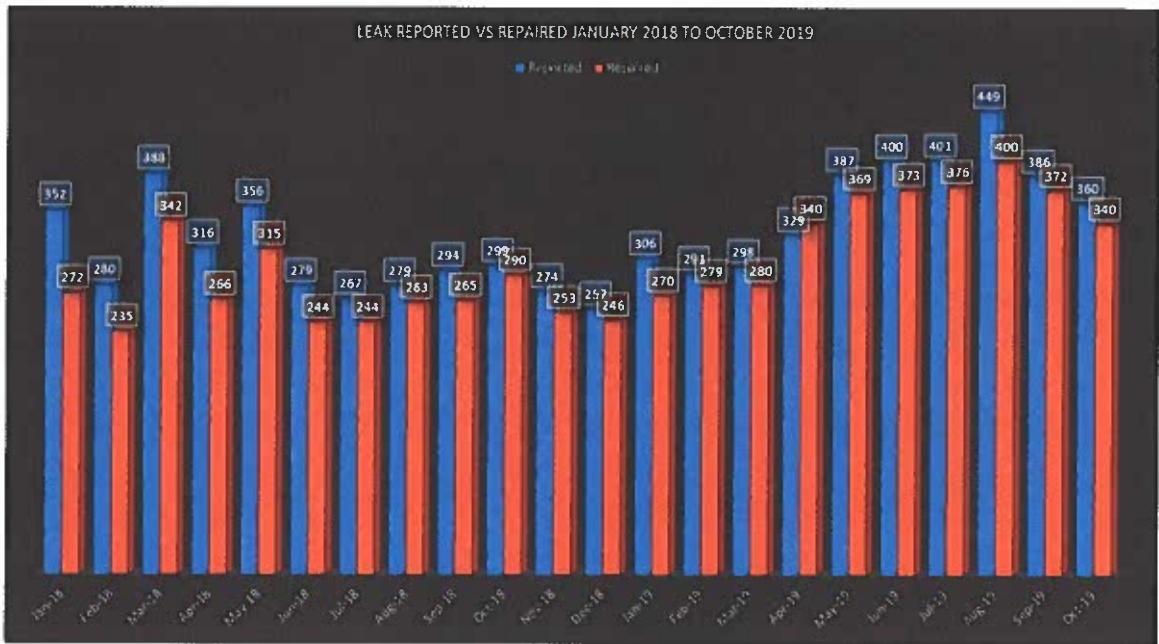
Land Acquisition Summary (as of October 2019)

GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	<u>Astumbo</u>	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/ <u>Manhita Farms</u>	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2 nd follow up sent on 09/12/18. 3 rd follow up sent on 04/10/19. Retracement Survey Property Map filed and recorded at DLM 7/10/19.
Booster Pump Station	<u>Agfayan</u>	Private	TGE working on structural design for pump station area for L28, B19, T3734, <u>Inarajan</u> 11/07/19.
<u>Asan Springs</u>	<u>Asan</u>	Federal	Pending comments from Federal and GovGuam agencies on Section 106 documents 11/07/19.

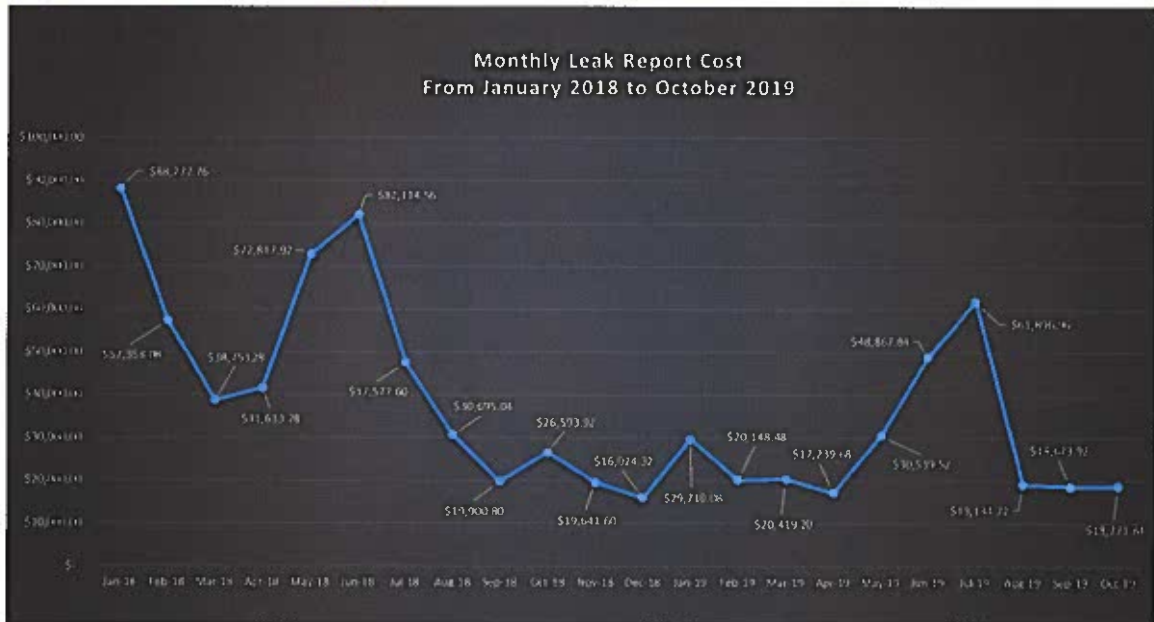
Leak Repair Summary (October 2019)



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



Monthly Leak Report Cost (October 2019)



Assumptions:

- 3. Leak rate = 4 gpm
- 4. Cost per gal = \$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 Qtrly Cost	2020 TOTAL Qty	2020 TOTAL Cost
2020 Motor Spares	15	\$111,742.44	60	\$446,969.76
2020 Pump Spares	20	\$66,783.09	79	\$514,706.11
	35	\$178,525.53	139	\$961,675.87

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
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Guest:

Lorraine Cruz	Court Reporter
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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.

Bls

Bls

Attested


JOSEPH T. DUENAS, Chairman


MICHAEL T. LIMTIACO Secretary