



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 22, 2019

AGENDA

1. CALL TO ORDER
2. [APPROVAL OF MINUTES](#)
3. COMMUNICATIONS
 - 3.1 Public Comments (2 min. per person)
4. GWA
 - 4.1 New Business
 - 4.1.1 [GM Report](#)
 - 4.1.2 [Financials](#)
 - 4.1.3 [Resolution 11-FY2019 Change Order to Island Wide Well Site Rehab Project W15-004-EPA](#)
 - 4.1.4 [Resolution 12-FY2019 Change Orders to DesignServContr for Northern District Waste Water Treatment Plant Upgrade to Secondary Treatment](#)
5. GPA
 - 5.1 New Business
 - 5.1.1 [GM Report](#)
 - 5.1.2 [Financials](#)
 - 5.1.3 [Resolution 2019-01 Contract Extension with IP&E for Fuel Bulk Storage Facility](#)
 - 5.1.4 [Resolution 2019-02 Authorizing Construction for Tumon Bay Lateral Conversion Project](#)
6. ANNOUNCEMENTS
 - 6.1 Next CCU Meetings: Feb19 – GWA WS; Feb21 – GPA WS; Feb26 – CCU Meeting
7. EXECUTIVE SESSION
 - 7.1 Personnel Matters
8. ADJOURNMENT



CONSOLIDATED COMMISSION ON UTILITIES

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**Special Board Meeting
CCU Board Conference Room
3rd Floor, Gloria B. Nelson Public Service Bldg.
4:00 p.m., January 10, 2019**

MINUTES

I. CALL TO ORDER

After the singing of the National Anthem, Guam Hymn and the recitation of the Inifresi, Chief Justice Katherine Maraman called the first meeting of 2019 Consolidated Commission on Utilities to order at 4:20 p.m.. She acknowledged the two (2) incumbent Commissioners Joseph Duenas and Judith Guthertz and then asked the three (3) newly elected and re-elected Commissioners Michael T. Limtiaco, Simon A. Sanchez and Francis E. Santos to please stand and join her at the podium.

II. PRESENTATION OF GEC CERTIFICATES & ADMINISTRATION OF OATH

The Chief Justice announced that she has reviewed the Guam Election Certificates for the three (3) newly elected / re-elected Commission members Michael T. Limtiaco, Simon A. Sanchez and Francis E. Santos and found them to be valid and in order. The Chief Justice then performed the Oath of Office immediately thereafter asking the three (3) to please raise their right hand. She administered the Oath to all three, one at a time.

III. ELECTION OF CCU OFFICERS

Chief Justice Maraman said that all the elected members have taken their oath of office and there now is a full body of Commission members for the 9th CCU Board, she will now entertain a motion for the election of officers for the Consolidated Commission on Utilities.

Comm. Judith Guthertz motioned that she would like to nominate Joseph Duenas for Chairman, Frances Santos for Vice Chairman, Michael Limtiaco for Secretary and herself, Judith Guthertz for Treasurer; Comm. Simon Sanchez seconded.

Chief Justice Maraman asked if there were any other nominations.

Comm. Guthertz moved that nominations be closed; the motion was seconded by Comm. Sanchez.

Chief Justice Maraman asked if there were any objections and there were none. She said the nominations are now closed and proceeded to ask for the vote by show of hands:

Joseph Duenas as Chairman – for the record the vote was unanimous
Francis Santos as Vice Chairman – for the record the vote was unanimous
Michael Limtiaco as Secretary – for the record the vote was unanimous
Judith Guthertz as Treasurer – for the record the vote was unanimous

Chief Justice Maraman then relinquished the gavel to the CCU Chairman – Joseph T. Duenas.

IV. ELECTION OF CHAIRS FOR CCU SUB COMMITTEES

Chairman Duenas then called for a motion to elect chairpersons for the three (3) CCU subcommittees namely – Finance, Internal Audit and IT / Cyber Security & Social Media.

Commissioner Guthertz motioned that she would like to nominate Comm. Francis Santos to Chair the Finance Committee, Comm. Michael Limtiaco to chair the IT/Cyber Security & Social Welfare Committee and herself to chair the Internal Audit Committee. The motion was second by Comm. Sanchez.

The Chairman asked if there were any other nominations;

Comm. Guthertz motioned that the nominations be closed; Comm. Sanchez second.

The Chairman called for a vote on the main motion by show of hands and the vote was unanimous.

For the record – Francis Santos is Chair for Finance, Michael Limtiaco is Chair for IT/Cyber Security & Social Media and Judith Guthertz is Chair for Internal Audit.

V. ANNOUNCEMENTS

The Chairman announced that the Commission will be conducting a work session for GWA on Jan. 15 at 4:30 p.m. and Jan. 17 at 4:30 for GPA; the next CCU meeting is on January 22nd at 5:30 p.m.

VI. ADJOURNMENT

The Chairman said there is no further business to discuss and adjourned the meeting. It was 5:30 p.m.

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Attested:

JOSEPH T. DUENAS, Chairman

MICHAEL T. LIMTIACO, Secretary



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Regular Board Meeting
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., November 27, 2018

MINUTES

1. CALL TO ORDER

The Chairman called the CCU regular meeting of November 27, 2018 to order at 5:30p.m. He said all five (5) Commissioners were present. Others in attendance include:

Commissioners:

Joseph T. Duenas	CCU Chairman
Francis Santos	CCU Vice Chairman
George Bamba	CCU Secretary
Judith P. Guthertz	CCU Treasurer
Simon A. Sanchez	CCU Member

Executive Mgmt.:

John Benavente	GM / GPA
Miguel Bordallo	GM / GWA
Melinda Mafnas	AGMO / GPA
John Cruz	AGMET / GPA
Tricee Limtiaco	AGMA / GPA
John Kim	CFO / GPA
Greg Cruz	CFO / GPA
Graham Botha	Staff Attorney / GPA
Kelly Clark	Staff Attorney / GWA

Management & Staff:

Lisa San Agustin	USA / GWA
Tess Camacho	GWA
Vangie Lujan	Compliance & Safety / GWA
Paul Kemp	Compliance & Safety / GWA
Janet Arroyo	Internal Auditor / GWA
Heidi Ballendorf	Communications / GWA
Patti Diego	Communications / GPA
Art Perez	Communications / GPA
Lou Sablan	Board Secretary / CCU
Ann Borja-Gallarde	Management Analyst, GM Office / GWA

Guest:

Angela Perez	AM Insurance
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2. APPROVAL OF MINUTES

The Minutes of October 19, 2018 was presented for approval.

Comm. Bamba motioned to approve the Minutes subject to verification & written correction; second by Comm. Santos. There was no further discussion or objection and the Minutes was approved unanimously.

3. COMMUNICATIONS**3.1 Public Comments - None****4. GPA****4.1 New Business****4.1.1 GM Report**

This report provides updates on key issues:

- 1. Generation System:** The following summarizes the generation capacity projection for December 2018:

December 2018 Projected Capacity:	358 MW
December 2018 Projected Demand:	240 MW
Anticipated Reserve Margin:	118 MW

- There are no major overhauls scheduled for the month
- Demand trending approximately 5% lower than last year

2. Net Metering Summary Ending October 2018:

Description:	Count	Kw
Active	1,778	18,894
Pending	19	241
Totals:	1,797	19,135

Services:	Count	KW	Kw/Customer
Residential	1,685	15,517	9.2
Others	93	3,377	36.3
Total:	1,778	18,894	
% Residential	94.8%	82.1%	
Estimated 12 Months Revenue Impact:	\$3,533,486		

3. All Expenses – Fiscal Year:

Description	FY16	FY17	FY18	FY19 thru 10/31/18*	Total to Date
Regular/OT Pay	\$ 11,349	\$ 22,256	\$ 26,122	\$ 4,984	\$ 64,710
Other Contractual	\$ 28,279	\$ 85,550	\$ 116,978		\$ 230,806
Bank Fees	\$ 155	\$ 1,032	\$ 1,085	\$ 15	\$ 2,287
Paid Rebates-Split AC	\$ 154,700	\$ 557,275	\$ 1,247,000	\$ 66,575	\$ 2,025,550
Paid Rebates- Central AC	\$ 3,400	\$ 8,200	\$ 4,400	\$ -	\$ 16,000
Paid Rebates-Washer/Dryer	\$ 2,800	\$ 7,425	\$ 48,800	\$ 4,800	\$ 63,825
Total Expenses	\$200,682	\$681,738	\$1,444,384	\$ 76,374	\$2,403,178

4. DSM Program Summary:

DSM Program reduces peak demand and reduces LEAC cost for all customers at a one time fixed rebate. DSM eliminates running less efficient peaking units at peak time thereby reducing fuel cost.

DESCRIPTION	AMOUNT
Initial DSM Budget FY'16	\$ 1,806,014.00
Interest Income as of Oct 18	\$ 4,728.64
Total Expense	\$ 2,403,178.39
Ending Balance as of Oct 18	\$ (592,435.75)
Addtl. Budget: Approved (FY'18)	\$ 1,139,189.00
Total Ending Balance as of Oct 18	\$ 546,753.25

5. PUC Dockets: Dockets on Agenda for November 29th

- GPA Docket No. 18-09 - Contract Amendment for Engineering, Procurement, and Construction Management for New Power Plant

6. Status of Recovery for Saipan from Super Typhoon Yutu:

- Major destruction occurred in the central and southern part of the island
- Airport, Beach Road, major water wells, major commercial areas, and all residential areas substantially impacted
- Pole installations substantially completed on main lines along Beach Road, Middle Road, and the main feeder lines which serve the airport, major water well areas
- Airport energized on November 17th

GENERATION:

Available = 51.7 MW

Normal Peak = 40.70 MW

Current Peak = 15.26 MW

Pole System:

1,772 ea. Down and Damaged

522 ea. New Poles Installed

GPA Provided about 450 ea. Concrete Poles

7. Status of Recovery for Saipan from Super Typhoon Yutu (cont'd):

GPA is making a difference in Saipan recovery efforts.

- GPA Executive Management is in daily contact with the Saipan team to ensure smooth and safe operations.
- The GPA Saipan team is working hard 12 to 14 hours daily to restore main lines and critical services. They are now concentrating on major business sectors on eastern part.
- GPA estimates the first team of 39 personnel will be assisting until December 23rd.
- All GPA personnel will be home for Christmas.
- The 2nd wave will deploy immediately after Christmas, subject to CUC's continued need.
- GPA has begun invoicing CUC for labor, equipment, materials, and expenses. The estimated assistance so far is about \$3M.
- The team on Guam at T&D, Generation, Engineering, Transportation, & Safety are multi-tasking and picking up extra duties to ensure continuity of services on Guam.

8. Status of GPWA SCADA Project:

The complete commissioning of the GPWA SCADA Project will be around March 2019

- GPWA estimates that SCADA Site Acceptance Test (SAT) may successfully conclude by January 11, 2019.
- GWA SCADA SAT can successfully conclude on February 18, 2019 with the integration of Ugum Water Treatment Plant to the Siemens SP5
- GWA will create a Project Schedule for GWA Advanced Applications Integration after successful completion of SAT.
- GWA has about 300 potential RTU sites which will add in phases after commissioning.

9. Visit to Rating Agencies:

On December 11, 2018, an update will be provided to the rating agencies, Fitch and S&P. These updates are more particularly important in light of the impact on the island from tax changes and the frequent storms that we have been experiencing. There has also been some changes in how public utilities are being evaluated and we need to discuss this with them.

10. POWER-GEN International Conference will be on Dec 4th & Dec 5th

- This conference provides an opportunity for GPA to network with equipment and service providers as well as get updated on latest technology and processes for power generation. Conference sessions includes Flexible Generation & On-Site Power, Operation & Design of Gas-Fired Plants, Optimizing Plant Performance, Energy Storage Breakthroughs, as well as other topics related to renewable technologies and microgrids.

11. Power Plant Tours in Michigan will be on Dec 6th & 7th

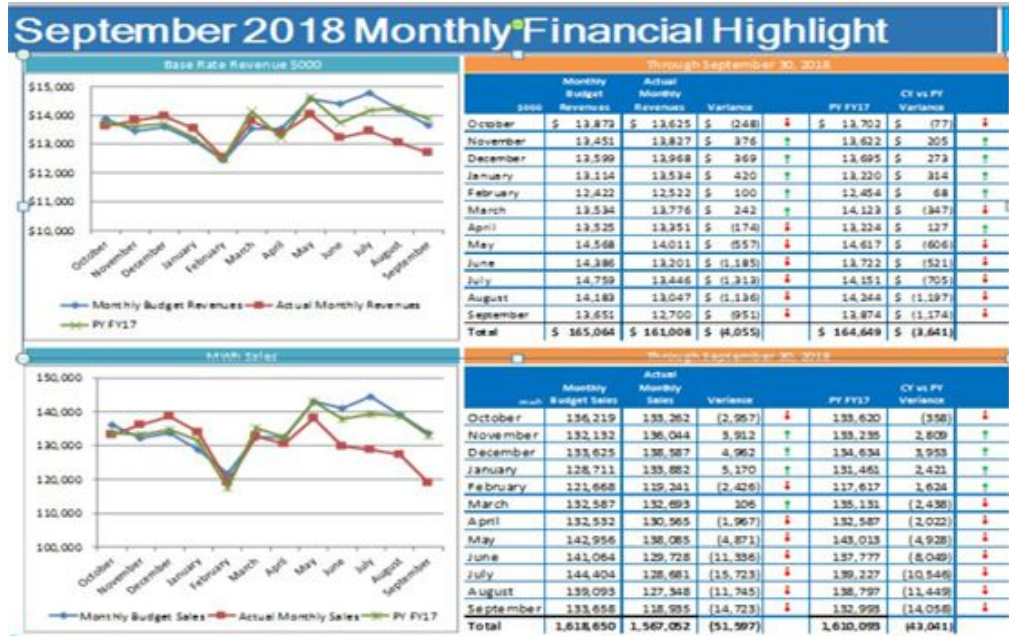
- After the conference, we will be visiting two power plants in Michigan:
 - Holland Energy Park Power Plant in Holland, Michigan –Combined Cycle CT Power Plant commissioned in 2017 with 2 CT x 1 Heat Recovery Steam Generator (HRSG) configuration for about 125-145MW output
 - Marquette Energy Center in Marquette, Michigan –Reciprocating Engine Plant commission in 2017 (~ 50MW - 3 x 17 MW units)

The purpose of the plant visit is to see these technologies in operation and discuss any operational or maintenance concerns or issues from the plant owners and operators. These are the type of technologies anticipated on bid for the new power plant IPP.

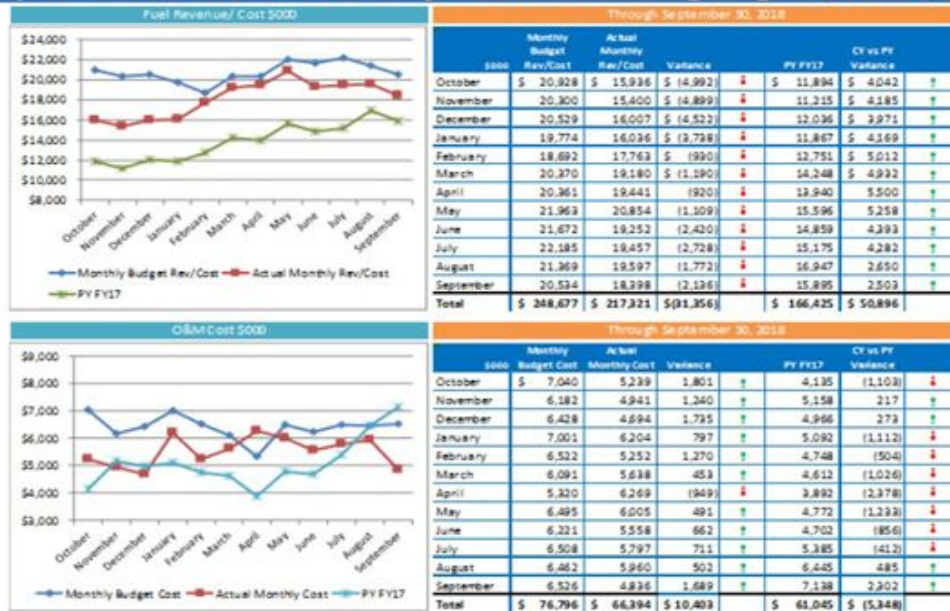
In discussion relative to Demand Side Management, the funding of additional rebates will be brought back for discussion again at the January or February meeting.

Comm. Bamba asked the GM for status update on the bid for the new power plant. GM Benavente said the process is in the Q&A phase and still on target, even with an ambitious schedule.

4.1.2 Financials



September 2018 Monthly Financial Highlight (Cont'd)



September 2018 Monthly Financial Highlight (Cont'd)

Through August 31, 2018						
	3Q2017	4Q2017	1Q2018	2Q2018	3Q2018	4Q2018
Residential	43,902	43,991	43,898	44,065	44,074	43,887
Commercial	5,252	5,226	5,231	5,262	5,278	5,261
Government	1,071	1,073	1,076	1,086	1,092	1,077
Streetlights	824	823	908	1,005	1,091	1,152
Navy	1	1	1	1	1	1
Total	51,050	51,114	51,114	51,419	51,536	51,378

Debt service coverage (DSC) calculation-Indenture						YTD Sept 2018
2014	2015	2016	2017			
Senior lien coverage	3.16	3.62	3.28	2.65		2.68
Aggregate debt service coverage	1.98	2.62	3.28	2.65		2.68
Debt service coverage (DSC) calculation-IPP as O&M						
Senior lien coverage	2.55	2.56	2.45	1.79		1.80
Aggregate debt service coverage	1.41	1.85	2.45	1.79		1.80

- Under recovery of LEAC - \$8.4 million

CFO Kim said the year \$4M shy of budget and slightly lower even than prior year. He attributed the shortfall to conservation efforts by ratepayers. Fuel revenues budget was \$248M v. actual of \$217M but higher than prior year of \$166M. He reported O&M at \$217M, under budget of \$248M. Debt service was reported at 1.8

Comm. Sanchez reiterated that LEAC under recovery is at \$8M and holding steady.

There was brief mention of the continued assistance to Saipan; the Chairman commended GPA management on their efforts there.

4.1.3 Resolution 2018-27 Levelized Energy Adjustment Clause (LEAC)

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, 2018. For the LEAC period covered of August 1, 2018 through January 31, 2019, 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 rising prices in the fuel market and to recover at least 70% of the under recovery at the end of the period. Since the application of the current rate beginning May 1, 2018, GPA was able to reduce the under-recovery balance of \$12.2M as of April 30, 2018 to \$8.3M by September 30, 2018; below the previously projected under-recovery balance of \$8.8 million for that same date.

The average market price of fuel in the initial filing for the current period was approved at \$77.13/bbl for the (6) six-month period ending January 31, 2018, the current projection for the remaining three months of this LEAC period is \$69.30/bbl and the projected price of fuel for the period ending July 31, 2019 is \$65.04/bbl. *Although GPA will file the required LEAC schedules, it has determined that it will not petition for a change in the LEAC factor for secondary voltage service customers as well as alternative voltage customer for the period of February 1, 2019 to July 31, 2019.*

The LEAC rate to remain at \$0.154242/kWh effective for the period from February 1, 2019 thru July 31, 2019.

Based on this status quo approach, an under-recovery of about \$5.0M is anticipated by the end of the LEAC period on July 31, 2019 which will have some impact on the working capital and other financial ratios however GPA will be able to manage in a short-term period.

With management recommending to hold LEAC status quo for the next LEAC period – Feb – July 2019, Comm. Bamba asked when will the under recovery be achieved. GM Benavente confirmed that LEAC will still be under recovered by \$5M at the end of July 2019. Comm. Sanchez said that by January 2019 the LEAC will be under recovered by \$13.8M and if we hold steady and oil prices will remain steady, the under recovery will be \$5M at the end of the 6-month period. To fully recover LEAC the rate must be increased to \$.016. He added keeping LEAC steady will give ratepayers a steady rate for a year and a half or 18 months.

Comm. Bamba motioned to approve Resolution 2018-27; second by Comm. Sanchez. There was no further discussion or objection and the motion passed unanimously.

4.1.4 Resolution 2018-28 Creation of Equipment Operator Superintendent Position

The Creation of the Equipment Operator Superintendent position is needed to oversee the day-to-day operations of the Equipment Operator section to support all facets of installation and maintenance work within the Transmission and Distribution Division.

The creation of the Equipment Operator Superintendent position is necessary and critical to the Guam Power Authority as it will be directly responsible for the planning and coordination of all equipment operations work such as new installations, relocations, and removals in construction and maintenance related to the Overhead, Underground, and Substation sections. Additionally, the superintendent position will be responsible for coordinating efforts with other divisions within the Authority and outside agencies such as the Guam Waterworks Authority and the Department of Public Works. This position

will oversee and manage the Vegetation Management Program such as scheduling of brush cutting maintenance, tractor mowing and tree trimming. The impact to creating a superintendent position is to minimize the outsourcing of this type of work.

At the 15th market percentile (2017 market data): the salary range for this position is \$70,080 - \$73,966 per annum.

There was brief discussion on this position and relation the current organizational chart.

Comm. Guthertz motioned to approve Resolution 2018-28; second by Comm. Bamba. There was no further discussion or objection and the motion passed.

4.1.5 Resolution 2018-29 Relative to FHB Credit Card

5GCA section 2311 where to referred as the "Senator Edward J. Cruz Medical Referral and Education Mileage Program" requires accrued mileage earned through the use of credit cards for travel by employees of public corporations be available to support off-island medical care, and off-island student travel involving academic, sports and cultural activities; and

Guam Power Authority have found First Hawaiian Bank (FHB) Priority Reward Business credit card provides a program where reward points are earned through the use of the credit card and the rewards points can be used to purchase airline tickets and support 5GCA section 2311 requirements,

GPA has determined that *\$50,000 credit limit* is required to support the travel requirements such as booking airfare, hotel arrangements, taxi fares and others.

Comm. Guthertz motioned to approve Resolution 2018-29; second by Comm. Bamba.

In discussion, Chairman Duenas asked if GWA has this same card and CFO Cruz confirmed yes. For the record, Comm. Sanchez asked to be recused from voting on this matter; Chairman concurred.

On the motion the vote was 4 ayes and 1 abstention, the motion passed.

4.1.6 Resolution 2018-30 Relative to 2nd Year Extension to Diesel Fuel Contract

The three (3) year base period for the Diesel Fuel Oil No.2 Supply Contract (GPA-029-14) with Mobil Oil Guam, Inc. and Isla Petroleum and Energy, for all diesel peaking units, expired on December 31, 2017. The first (1st) year of the 2-year contract extension option for Mobil and IP&E commenced on January 1, 2018 and will expire on December 31, 2018. The Authority released a solicitation for the procurement of a new contractor for the Supply of Diesel Fuel Oil No.2 under a Multi-Step IFB GPA-008-18. The term of the new contract is for a base period of two (2) years to commence on January 1, 2019, with three (3) additional 1-year extension options. the Authority anticipates a delay in awarding a new contract by January 01, 2019 due to a bid protest. GPA negotiated for the second (2nd) year extension of the existing contract with Mobil and IP&E for a term of one (1) year commencing in January 1, 2019. The total requirement for the second (2nd) year contract extension with Mobil and IP&E at the designated sites is estimated at about 700,000 barrels at a total cost of about \$76M (Exhibit A), and is funded under the FY2019 approved budget (Exhibit B). GPA is requesting for the approval of the second (2nd) year contract extension with Mobil an IP&E.

Comm. Guthertz motioned to approve Resolution 2018-30; second by Comm. Sanchez.

For the record Comm. Bamba asked to be recused from voting; concurred by Chairman Duenas.

The vote was 4 ayes and 1 abstention; the motion carried.

4.1.7 **Resolution 2018-31 / GWA Resolution 10-FY2019 Ratification of the Nov. 23, 2018 Thanksgiving Holiday**

The Office of the Governor issued an Executive Order declaring Friday, November 23, 2018 a holiday for the government of Guam. The General Managers of GPA and GWA adopted the Governor's Executive Order declaring the holiday and now wishes to bring the matter before the Commission for concurrence.

Management reported that a skeleton crew from customer service did report for duty. There was some discussion on the cost of the holiday and ultimately not all the Commissioners agreed that the holiday be granted.

Comm. Bamba motioned to approve Resolution 2018-31; second by Comm. Guthertz.

In further discussion, Chairman Duenas motioned to amend the resolution to strike the word "ratification" on line 25; second by Comm. Guthertz.

On the amendment, the vote was 4 ayes, 1 nay and passed. On the main motion the vote was 4 ayes and 1 nay. The motion carried.

5. **GWA**

5.1 **New Business**

5.1.1 **GM Report**

Operations Update Production

Monthly Production Summary - October 2018			
Deep Wells			37.1 MGD
Active wells =	92 of 120		
Avg days in operation =	31 days		
Total Production =	1,112,303 Kgals		
Springs			0.00 MGD
Avg days in operation =	0 days	*placed on standby	
Total Production =	0 Kgals		
Ugum Surface Water Plant			1.8 MGD
Avg days in operation =	31 days		
Total Production =	54,395 Kgals		
Tumon Maui Well			1.09 MGD
Avg days in operation =	31 days		
Total Production =	32,845 Kgals		
		1,199,543 Kgals	40.0 MGD

DW Status as of 10/31/2018	
Active	92
Grounded motor	8
Out of commission	10
Secured, PFOs	2
Standby	8
TOTAL	120



Distribution

Monthly Distribution Summary - October 2018					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	21	19	90.5%
	Central	7	15	15	100.0%
	Southern	7	15	15	100.0%
		25	51	49	96.1%



Wastewater Collections

Monthly Collections Summary - October 2018

Wastewater Pump Stations

	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	48	92.3%
	Central	29	65	55	84.6%
	Southern	25	52	48	92.3%
		76	169	151	89.3%

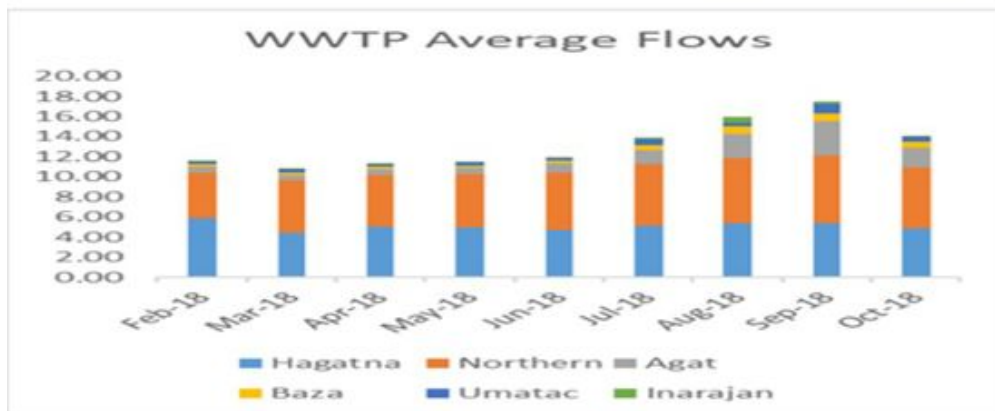
CCTV Inspection and Sewer Cleaning
October 2018

Wastewater Treatment

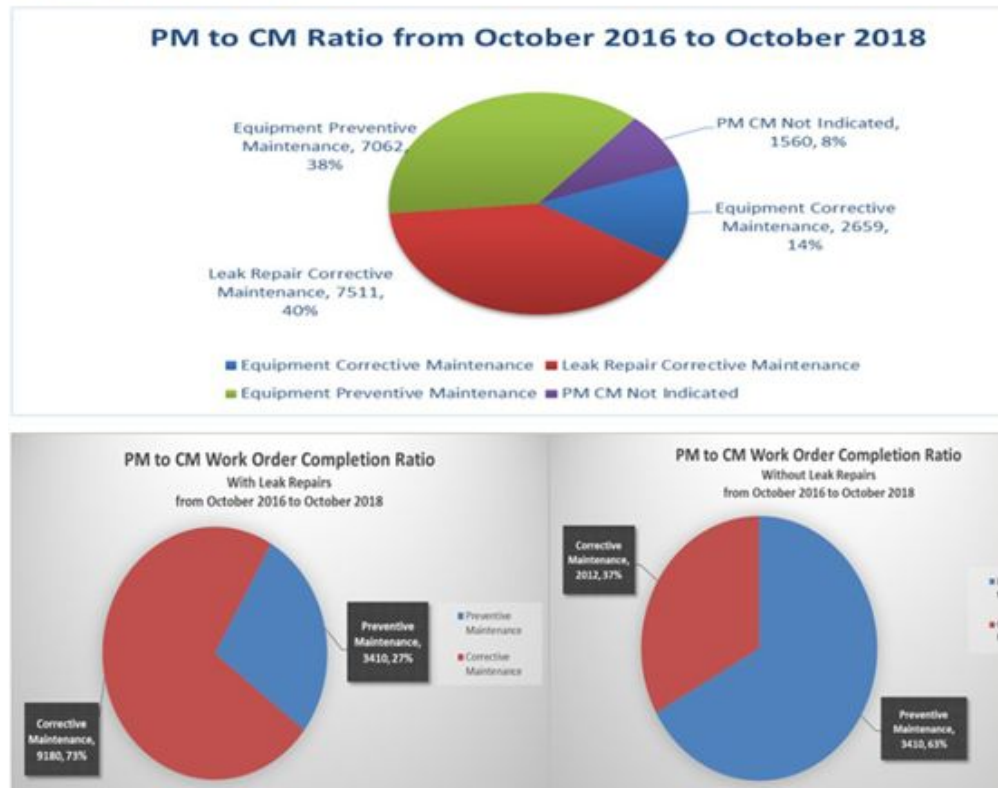
Monthly Wastewater Treatment Summary - October 2018

WW Treatment Plants - Flows

	Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. (\$)
	Hagatna	4.90	278,580	\$ 25,072
	Northern	6	607,880	\$ 54,709
	Agat	1.96		
	Baza	0.60		
	Umatac	0.52		
	Inarajan	0.12		
		14.10	886,460	\$ 79,781



Asset Management for October 2018



Operational Issues

Production & Distribution

- Leak repair/detection
 - Crews maintaining performance - As of October 15th, there were 17 pending repairs
 - Contract pending for remote leak detection services – services to begin in January 2019
 - GWA's Line and Leak Repair Unit has been nominated for and received MAGPRO award for Cost Savings/Innovative Id Year (Large Department/Agency)
- WSCC –
 - SCADA preparation on-going
- Production
 - Pump and motor inventories getting low; PUC approval of FY2019 purchases pending (Nov 29th)
 - GWA crane is down again, pending repair; Well repair delayed because of crane rental PO issuance

Wastewater Collection & Treatment

- CCTV & Collections System:
 - SSES and CCTV-based repairs to collection lines and SMHs are still on-going
 - CCTV equipment and Combination trucks need service – pending POs
- Pump stations
 - Working to address pump operability issues
 - Critical spares and replacements procurement – awarded/protested; initial orders pending
- Treatment Plants
 - Hagatna WWTP
 - Two Centrifuges are operating, but still need repair to controls on one unit;
 - Clarifier – two operational, one being repaired
 - Digester aerator – 2 of 3 operational, gear-box issue
 - Northern WWTP
 - No. 2 centrifuge gear-box replaced; operation pending bins
 - Agat-Santa Rita WWTP
 - Contractor is being assessed LDs
 - Equalization tank construction still on-going
 - Paving and sitework to be partially complete in December
 - U-M WWTP
 - Work on-going at the site
 - Significant delays have occurred because of USF&W / EPA permitting issues

COMPLETED FIELD ACTIVITY		APRIL 2018 COMPLETED FIELD ACTIVITIES TO BE POSTED IN CR																								
JAN 2017 THRU OCT 2018 (POSTED IN CR)		Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	TOTAL		
GWA - Test Meter		30	9	5	371	745	87	393	743	2000	2007	434	378	750	969	23	1429	94	1259	797	2459	639	3	15	15,241	438
GWA - Meter Exchange		393	179	220	276	482	353	501	807	2526	2036	452	239	1086	2120	121	1056	248	123	37	744	1514			15,114	434
GWA - Verify Zero Report		30	124	124	94	96	402	261	399	550	89	82	389	356	326	137	69	13	2	2	5	5	6	2087	0	
GWA - Verify Low Usage		0	0	0	0	2	37	36	488	857	202	227	612	858	1202	1035	483	29	5	6	2			5096	0	
TOTAL:		453	332	343	743	1360	878	1352	2237	3733	2337	1095	1478	2203	3283	4505	2082	237	2362	2050	2621	5417	2718	39118	852	

OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	244	282	305	225	302	397	1012	230	927	704	721	1041	1347	815	671	544	1059	1716	1013	1079	25785	
OF BACKLOGS APPLIED AS PERFORMANCE REPORTS:	0	0	0	20	122	84	29	111	219	80	77	4	136	23	323	48	75	20	30	253	343	500	2397	\$ 1,426,662.21
WO FIELD CORP PERFORMANCE CHANGE OUTS:	19	13	13	9	21	26	34	24	18	28	28**	25**	9	11	2	2	2	28	17	28	25	25		
WO ADMIN STAFF TO CREATE AND/OR FIELD ACTIVITIES IN C/O	7	4	6	9	9	20	13	20	13	23	13	13	11	5	4	1	13	9	3	1	1	1		
WO SUPP STAFF TO GIVE MATERIALS AND/OR NEW METER TESTS	1	3	2	2	2	2	2	2	2	2	2	2	2	4	0	0	2	2	2	2	2	2		
WO TEST FACILITY PERSONNEL TESTING METERS:	2	2	2	3	1	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2		
WO ACCOUNTANTS CALCULATING BACK BILLS:	0	0	0	2	3	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2		
TOTAL:	30	18	22	22	38	37	31	45	58	50	48	48	20	32	11	10	7	47	31	34	34	34		

† The data in this paper are from 2017 (from Dec 16, 2017). During this period, no formal performance analysis was conducted on the algorithm used in this study. If the system is used during the next month, using a new version of the software is not recommended. The data in this paper are from 2017 (from Dec 16, 2017). During this period, no formal performance analysis was conducted on the algorithm used in this study. If the system is used during the next month, using a new version of the software is not recommended.

ACTIVE LP MODELS - PURCHASE MO & YEAR	COUNT	
2012	8794	14377 WARRANTY EXPIRED
Jan-13	2106	
Feb-13	728	
Mar-13	633	
May-13	1431	
Aug-13	685	
Feb-14	48	2078 ACTIVE WARRANTY
Mar-14	1	
Apr-14	928	
Jun-14	54	
Aug-14	1047	
TOTAL :	14495	

Public Response to Back-Billing

- Customers are surprised by back-billing
- Customers do not understand why they are being back-billed for prior year service dates
- Media reporting on back-billing and championing campaign for GWA to improve or eliminate back-billing

New Steps Added to Back-Billing Process

- Improve communication by:
 1. Send customer a letter indicating meter has been replaced (with in 10 working days)
 2. For failed meters, send customer a letter indicating meter has been tested and account is under review for potential back-billing (with in 31 working days)
 3. If back-bill is required, send customer a letter with easily understandable calculations explaining charges for prior period water consumption (with in 49 working days)
- Researching future opportunities to improve speed and accuracy of process

Current and Proposed Process Timelines

Process	Week 1	Month 1				Month 2				Month 3			
		2	3	4	5	6	7	8	9	10	11	12	
Water Meter Exchange													
Water Meter Testing													
Back-Billing													

Marbo (Andy-South) Wells – Status

- Reversion documents / Notice of Entry filed by Office of U. S. Attorney in U.S District Court; property has reverted to U.S. Gov't (pending transfer to DoD)
- Informally advised that reservation was included so GWA will retain ownership of wells and no-cost easement being considered for access and use of well sites
- A copy of the reservation will be submitted to Department of Land Management. The property will be on the priority listing for the DOD Joint Land Use Group consideration for transfer to GWA.
- Press release will be issued.

One Guam Update

- Tumon Maui Well:
 - Hatch repair pending
 - VFD for one of ventilation fans being evaluated
- Santa Rosa Tank:
 - NAVFACMAR CO has briefed Andersen MSG (Missions Support Group) commander, and Civil Engineering Squad (CES) commander, and the General regarding the MOU for the Santa Rosa Tank project. Further action by GWA pending finalization of MOU.
- Agat-Santa Rita WWTP
 - Per Tom, may not use the easement for the routing of the new wastewater line from Hyundai.
 - DoD preparing documents for "in-kind" consideration as payment for the Agat easement. It will require GWA to do simple mowing and the removal of one large tree at the lot near the Tumon Maui Well.
- OEA Projects
 - NGLA Observation Wells - Discussion with DoD's Legal needed to nail down ownership and maintenance issues
 - Interceptor – working out coordination issues with regard to by-pass routing, GPA renewable project, and housing demo
 - Observation Wells
 - Still pending approval from DOD for the on Andersen sites new wells.

- Ownership of the wells post-construction was discussed at GWIST Face to Face Meeting. OEA representative indicated concurrence with the proposal to include the transfer of improvements (new/rehabbed wells) to DoD upon completion of construction as a part of the Temporary Construction Easement documentation.
 - Sewer Interceptor
 - Revised Site Approval Request for the South Finegayan portion of the project are pending.
- Training and Collaboration
 - AWWA HIWPS training for operators – waiting for DoD interest
 - CIPP training scheduled for this month Oct 22-26.
- 30-Other
 - Utilis (satellite-based leak detection) - DOD is interested in the Utilis project.
 - Data Sharing SOP/MOU - In final draft stage. Waiting on review from Air Force.
 - Connection by Developer to Navy/Murray Road - Pending SHPO; Maria Lewis will keep on top of it.
 - Cabras Island Water Lines – further action pending GWA review
 - Navy Raw Water Lines - GWA asked about tapping into the Navy raw water lines; Navy has reviewed and is proposing Bulk Water Sales
 - Sales of “raw” water will reduce the need for the treatment plant but too far to make it cost efficient.
 - DOD will continue to sell GWA treated water, but work on a rate with distribution costs removed.
- Route 5 Sewer Line Project
 - Maria Lewis verified Navy was not yet billing GWA for sewer, but the billing problem has been corrected and GWA should start receiving bills this month.
 - GWA contractor working out how to tie in Southern High.
- Property Transfers
 - Transfer of Navy laterals at Murray Road to GWA
 - The lines were placed on the priority listing for the DoD Joint Land Use Group's (JLUG) consideration for transfer.
 - Transfer of BPM-1 monitoring well
 - the property will be prioritized for transfer to GovGuam/GWA.

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	79	3	9	2	96.8%

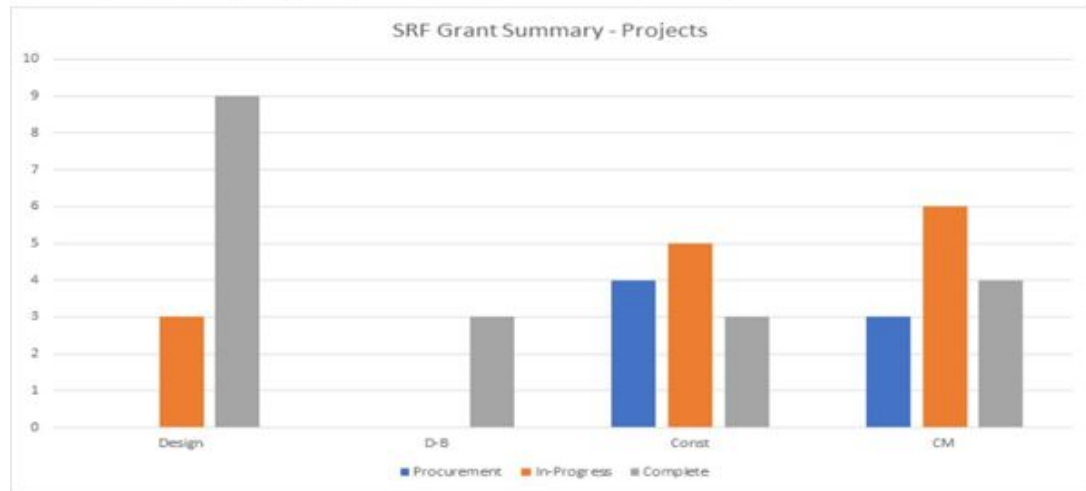


Status Information

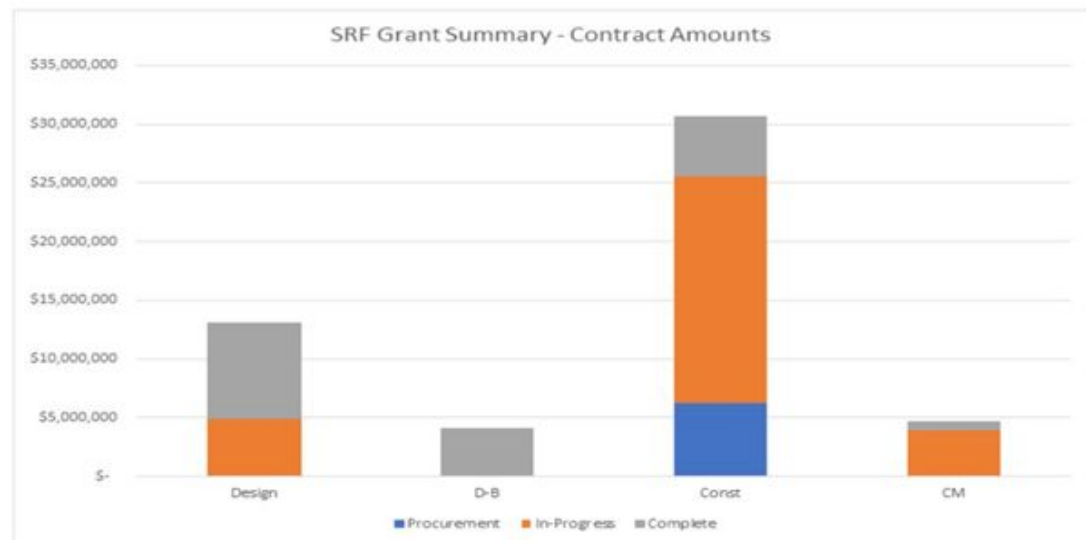
- 2 items delayed
 - Meters - completed
 - Baza Gardens Sewer Line – December 2018
 - Umatac-Merizo Wastewater Treatment Plant – July 2019
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
 - 11/05/2018, Yigo Pump Station sewer overflow – broken compressor hose
 - Umatac WWTP, Bypass 10/18/2018 to 11/06/2018 (ended Nov. 6, 2018)

SRF Grant Summary

SRF Grant Summary - Projects (Sep 2018)					
	Procurement	In-Progress	Complete	Totals	%
Design	0	3	9	12	30%
D-B	0	0	3	3	8%
Const	4	5	3	12	30%
CM	3	6	4	13	33%
Totals	7	14	19	40	
%	18%	35%	48%		



SRF Grant Summary - Contract Amounts (Sep 2018)					
	Procurement	In-Progress	Complete	Totals	%
Design	\$ -	\$ 4,892,286	\$ 8,249,328	\$ 13,141,614	25%
D-B	\$ -	\$ -	\$ 4,108,217	\$ 4,108,217	8%
Const	\$ 6,275,782	\$ 19,309,043	\$ 5,086,130	\$ 30,670,955	58%
CM	\$ -	\$ 3,877,036	\$ 802,243	\$ 4,679,279	9%
Totals	\$ 6,275,782	\$ 28,078,365	\$ 18,245,918	\$ 52,600,065	
%	12%	53%	35%		



OEA Grant Summary

- NDWWTP Upgrades
 - 90% design submittal due December 10th.
 - Sitework bid package issued – Award pending
 - Vertical bid package planned for issuance Mar 2019
- Outfall Diffuser:
 - Bid received and currently being evaluated
- Sewer Line Interceptor Design-Build
 - 60% Design submittal submitted; pending GWA review
 - 90% Design submittal expected December 20th
 - Construction start expected in January
- NGLA Observation wells – Design work completed
 - Bid package drawings and specs under review by GWA
 - Permitting issues being resolved and permits being obtained by PM/CM
 - Bid package to be issued once permits approved – expected in Mar 2019

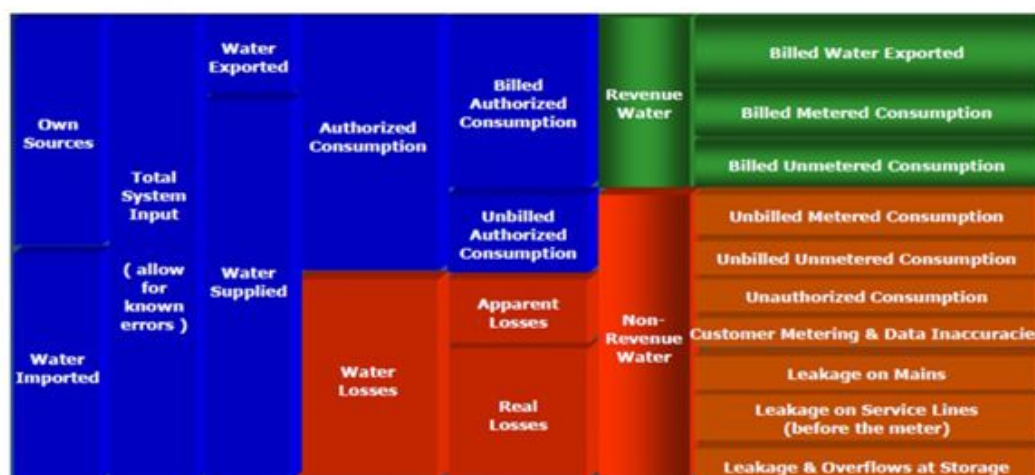
Action Item	Date (Target)	Date (Actual)	Status	Remarks
Project Funds Available	July-16	AUG-30-16	Completed	
Land Acquisition	Jan-17	Jan-17 (Compensation Pending)	Completed	Survey complete, appraisals complete – Deed circulated for signatures
Procure PM/CM Firm	Jan-17	Jan-17 (NTP Issued Feb 10th)	Completed	
Procure Design Firm	Jul-17		Completed	Contract issued; kickoff pending
Design -- 30/60/90/Final -- Review	Jun-18	30% - completed May 60% - expected Sep	On-target	Project design schedule has been revised / delayed
NEPA Analysis and Determination	Feb-17	Pending	Delayed	USEPA received SHPO concurrence; OEA to review EPA EA
Procure Construction Firm	Dec-18		On-target	Phased construction; Phase 1 expected award before Dec '18; Phase 2 award in 1 st quarter '19
Construction Complete/Commence Operations	Nov-21		On-target	
Sewer line connection from MCB to GWA infrastructure	Jul-19		On-target	
MCB Initial Operating Capability	Jul-22		On-target	

Land Acquisition Summary

GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	Ugum	Private	Acceptance of Counter offer Letter for L4 B4 T3521 drafted and sent to GM for review and approval 10/09/18. Property owner counteroffer sent up to GM for approval for L3 B4 T3521 11/05/18.
	Astumbo	Gov't. - CLTC	GWA and DLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DLM
	Piti	Private	Preliminary geotechnical investigation and archaeological investigation in the process 05/01/18
Expansion of the Northern District Wastewater Treatment Plant (NDWWTP)	Dededo	Gov't - GALC	Land acquisition completed and filed under GWA ownership 09/17/18
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Land Registration has been approved by Superior Court of Guam. Pending release and recordation of the Decree Establishing Title at DLM. DCA will be submitting Retracement Survey Check Print Map to DLM for review and comments 07/13/18. Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2 nd follow up sent on 09/12/18.
	Y-8	Gov't. - CLTC	Property ownership under Guam Waterworks Authority per Grant Deed No. 928090
Booster Pump Station	Agfayan	Private	Authorization Form to perform appraisal and investigative services for L28, B19, T3734, Inarajan signed by CLTC 10/29/2018
Sewer Pump Stations	2 nd Adjacent Property to Southern Link	Private	Land Purchase and Sale Agreement forwarded to property owner for signature 11/07/18
Asan Springs	Asan	Federal	License Agreement for Asan Springs facility that fall on Dept. of Park Services property currently under DOI review

NRW – Update

- Water Loss Control Program activities are on-going
 - Latest numbers show water losses (real losses) at 49.4%.
 - Production meter replacement program is under design for 65 well sites. Portable flow meter is being procured to calibrate existing meters.
 - District Metering Areas are currently being developed for pilot project. Locations have been identified. Grant application was submitted for this pilot project
 - DOI Grant application has been approved for training and equipment; Procurement has been initiated.



5.1.2 Financials

CFO Cruz said that at the last meeting, the Commission asked him to prepare report on back billing and advised that in 2016 74 accounts were back billed valued at \$2,000. In 2017 it was 591 accounts with

value of \$400k and in 2018 1,500 accounts with value of \$700k. He added that 4-5,000 more accounts still need to be cleared.

5.1.3 Resolution 02-FY2019 Relative to Proposed Contract with Eurofin Eaton Analytical Inc. for Laboratory Services

GWA is in need of analytical services where samples will be collected from GWA facilities around the island, and prepared for shipment at the new GWA Laboratory facility in upper Tumon. EPA-certified laboratory services will be provided from Eurofins' laboratory facilities within California. The cost per year is \$405,638.00 with a total cost of \$1,216,914.00 for three (3) years. The contract is set for a term of 3 years with an option to extend to a total of 5 years and will be funded by revenue funds.

Comm. Bamba motioned to approve Resolution 02-FY2019; second by Comm. Sanchez. On the motion the vote was 4 ayes, 1 absent.

5.1.4 Resolution 03-FY2019 Relative to Ratification of the Contract Extension with Eurofin Eaton Analytical Inc. Testing Services

The purpose of this resolution is to ratify the 2013 contract amendments for necessary expenditures for laboratory services, starting from August 2, 2018 through the date the new agreement for laboratory services will be signed after PUC approval.

It was the intention of GWA management to continue laboratory services with Eurofins on a month to month basis for an average anticipated cost of \$35,700.00 including a 5% contingency in order to comply with federal and local laws and regulations.

The service is necessary and urgent as GWA is left with no other alternatives. Samples will be collected from GWA facilities around the island, and prepared for shipment at the new GWA Laboratory facility in upper Tumon. EPA-certified laboratory services will be provided from Eurofins' laboratory facilities within California.

GWA Management anticipates the new agreement for laboratory services will be issued at the end of the year, so monthly services covered under this ratification are expected through calendar year 2018 and will be funded with revenue funds.

Comm. Bamba motioned to approve Resolution 03-FY2019; second by Comm..Guthertz. There was no further discussion or objection and the motion passed unanimously

5.1.5 Resolution 04-FY2019 Approval of a Multi-Year Lease Agreement for Heavy Equipment

The objective is to insure that GWA's water and wastewater operations divisions have access at all times to the equipment necessary for daily operational requirements island wide. The long-term lease of additional equipment with maintenance services provided by the vendor will insure maximum availability of the equipment, reduce short-term rental costs when GWA-owned equipment goes down, and can be used by GWA to supplement daily operational requirements in the performance of many the smaller CIP projects and water and wastewater repairs using in-house crews.

This is a five (5) year contract term in the amount of \$1,160,829.00 and will be funded through O&M.

Comm. Guthertz motioned to approve Resolution 04-FY2019; second by Comm. Bamba. There was no further discussion or objection and the motioned carried unanimously.

5.1.6 Resolution 05-FY2019 Approval of a Two-Year Extension of the Contract with JMI Edison for the Purchase of Cationic Polymer for the Hagatna and Northern Wastewater Treatment Plants

The objective is to exercise the available option years for an existing supply contract for chemicals used at several of GWA's Wastewater Treatment Plants in Hagatna and the Northern District and Agat-Santa Rita WWTP and to ensure sufficient stock is available at all times. The proposed action is necessary to insure a consistent stock of chemicals at all times in order to continue treatment of wastewater required by USEPA and specified in § II A Paragraph 5 of the 2011 Court Order.

Under the two (2) year option at the negotiated price of \$1.56 per pound for a total cost of Six Hundred Eighty-Six Thousand Seven Hundred Twenty Dollars (\$686,720.00) plus a ten percent (10%) contingency of Sixty-Eight Thousand Six Hundred Seventy-Two Dollars (\$68,672.00) which totals out to GWA's requested approval for funding on this contract of Seven Hundred Fifty-Five Thousand Three Hundred Ninety-Two Dollars (\$755,392.00) and funded through O&M.

Comm. Bamba motioned to pass Resolution 05-FY2019; second by Comm. Guthertz. There was no further discussion or objection and the motion carried.

5.1.7 Resolution 06-FY2019 Approval of a Two-Year Extension of the Contract with Total Chemical Resources, Inc. for the Purchase of Anionic Polymer and ACH Aluminum Chlorhydrate for the Hagatna and Northern Wastewater Treatment Plants

The objective is to exercise the available option years for an existing supply contract for chemicals used at the Hagatna and Northern District Wastewater Treatment Plants and to ensure sufficient stock is available at all times. The proposed action is necessary to insure a consistent stock of chemicals at all times in order to continue treatment of wastewater required by USEPA and specified in § II A Paragraph 5 of the 2011 Court Order.

GWA negotiated a \$1.98 price per pound for Anionic Polymer with an estimated usage of 72,096 pounds per month at an annual cost of \$1,713,000.96 and \$1.25 price per pound for Aluminum Chlorhydrate with an estimated usage of 97,146 pounds per month at an annual cost of \$1,457,190.00 for a total cost of \$6,340,381.92 under the two (2) year contract option.

GWA management is also seeking a 10% contingency in the amount of \$634,038.19 to the 6,381,000.00, which would then make the total authorized funding to be \$6,974,420.11 and will be funded through O&M.

Comm. Bamba motioned to approve Resolution 06-FY2019; second by Comm. Sanchez. there was no further discussion or objection and the motion passed unanimously.

5.1.8 Resolution 07-FY2019 Approval of Change Order to the Construction Management Contract for the Agat-Santa Rita WWTP Upgrades

The construction management change order(s) for CM services will allow for a continuity of services as it relates to any construction extension at the new Agat-Santa Rita WWTP Upgrades project due to contractor issues. The construction contractor, Sumitomo Mitsui Construction Company (SMCC), has submitted to GWA extension requests that will push the completion of the project to March 2019. GWA management has reviewed SMCC's delay claims and is willing to provide a contract extension but only to September 2018. After this time the contractor will be assessed Liquidated Damages until the project is completed. Currently the remaining major items to be completed are the equalization basin and maintenance building.

GWA management has received a fee proposal from GHD in the amount of Nine Hundred Seventy-Seven Thousand One Hundred Ninety-Seven Dollars (\$977,197.00) however GWA will be negotiating down this fee proposal given the level of staffing and construction activities will ramp down towards the end of the construction period. Due to the timing of approvals GWA management is still seeking CCU approval for a funding increase to a not-to-exceed amount of \$977,197.00.

The construction contractor's latest schedule shows the project completion will be by March 2019.

Funding for any Change Order to GHD moving forward will be from any available bond funds under the line item - WW 11-08 "Agat/ Santa Rita STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of \$5,000 per day from the contractor beginning September 1, 2018.

Comm. Bamba motioned to approve Resolution 07-FY2019 second by Comm. Guthertz. There was no further discussion or objection and the motion passed unanimously.

5.1.9 Resolution 08-FY2019 Approval of Change Order to the Design Contract for the Agat-Santa Rita WWTP Upgrades

The design services change order will allow for a continuity of design services during construction as it relates to any construction extension at the Agat Santa Rita WWTP Upgrades project due to contractor issues. The construction contractor, Sumitomo Mitsui Construction Company (SMCC), has submitted to GWA extension requests that will push the completion of the project to March 2019. The ending of the contractor activities would mean the design services during construction by the design engineer would end a couple of months thereafter to compile project documentation.

GWA management has received a fee proposal from DCA in the amount of Six Hundred Thousand Dollars (\$600,000.00) with funding source from bond proceeds under CIP WW 11-08 "Agat/Sta Rita STP Replacement", System Development Charge (SDC) Funds, and Internally Funded CIP Funds

The construction contractor's latest schedule shows the project completion will be by March 2019, thus the design services ending period would end a couple months thereafter.

Comm. Santos asked if the project is done internally how would it affect staff. GM Bordallo said GWA does not have the capacity to handle the daily inspection or special inspection like structural adding it is not advisable for GWA to do its own Design and CM. It is best to outsource for liability.

Comm. Bamba motioned to approve Resolution 08-FY2019 second by Comm. Guthertz. There was no objection or discussion and the motion passed.

5.1.10 Resolution 09-FY2019 Approval of Change Order to the Construction Management Contract for the Baza Gardens Wastewater Conveyance Project

The construction management change order(s) for CM services will allow for a continuity of services as it relates to any construction extension at the Baza Gardens wastewater conveyance project due to contractor issues. The construction contractor for Phase III, Sumitomo Mitsui Construction Company (SMCC), has submitted to GWA extension requests that will push the completion of the project to April 2019. GWA management is still reviewing the claims made by the Contractor and will respond accordingly.

GWA management has received a fee proposal from SSFM in the amount of Seven Hundred One Thousand Six Hundred Five Dollars and Fifty-Nine Cents (\$701,605.59), however GWA will be negotiating down this fee proposal given the level of staffing and construction activities will ramp down towards the

end of the construction period. Due to the timing of approvals GWA management is still seeking CCU approval for a funding increase to a not-to-exceed amount of Three Hundred One Thousand Five Hundred Sixty-Four Dollars and Fifty-Nine Cents (\$301,564.59). For clarification GWA has authorized funding for SSFM of Two Million Eight Hundred Seventy-One Thousand Dollars and Zero Cents (\$2,871,000.00) and the current contract value with SSFM is Two Million Four Hundred Seventy Thousand Nine Hundred Fifty-Nine Dollars and Zero Cents (\$2,470,959.00). The \$301,564.59 is the additional funding authorization needed to account for the SSFM's \$701,605.59 proposal. Funding for any Change Order to SSFM's contract moving forward will be from any available bond funds under the line item - WW 11-03 "Baza Gardens STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of \$3,000 per day from the contractor.

The construction contractor's latest schedule shows the project completion will be by April 2019.

Comm. Bamba motioned to approve Resolution 09-FY219 second by Comm. Guthertz. The motioned passed unanimously without further discussion or objection.

5.1.11 Resolution 10-FY2019 GPA Resolution 2018-31 Ratification of the Nov. 23, 2018 Thanksgiving Holiday

This resolution was discussed and voted on under GPA earlier in the Agenda but presented here for record purposes.

6. ANNOUNCEMENTS

6.1 Next CCU Meetings

The Chairman announced that there will be no work session or meeting in December and wished everyone a good holiday season.

He also announced that this will be the last meeting for Comm. George Bamba and thanked him for his service and contribution. He said that he will be missed terribly. Comm. Bamba returned the gesture thanking both utilities for their hard work and dedication. He congratulated the management and staff of GPA and GWA saying that they made a lot of strides with IT and feels comfortable that the foundation is in place for growth and further progress.

The CCU January calendar follows: the CCU Oath of Office on January 10; the GWA work session on Jan. 15; the GPA WS on Jan. 17 and the CCU Meeting on Jan 22.

The Chairman said there are a few items for discussion in executive session and confirmed that Legal Counsel has prepared the necessary affidavit. He called for a 10 minute recess before proceeding. The time was 6:40 p.m.

The meeting resumed at 6:50 p.m. in executive session.

7. EXECUTIVE SESSION

7.1 Personnel Matter

7.2 Litigation Matter

The meeting was moved back to Regular Session at 7:48 p.m. and the Chairman said he would entertain a motion.

Comm. Bamba motioned to approve the discussion relative to the salary adjustments for executive management as discussed in executive session. Comm. Santos seconded. There was no further discussion or objection and the motion passed unanimously.

8. ADJOURNMENT

There being no further business to bring before the Commission, the meeting adjourned at 8:10 p.m.

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Attested:

JOSEPH T. DUENAS, Chairman

MICHAEL T. LIMTIACO, Secretary



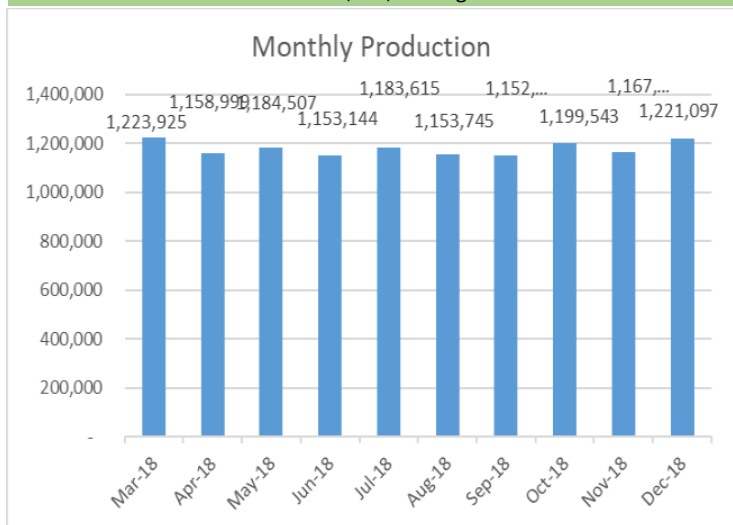
Management Report

GPWA CCU Board Meeting, January 22, 2019

Operations Update

Production

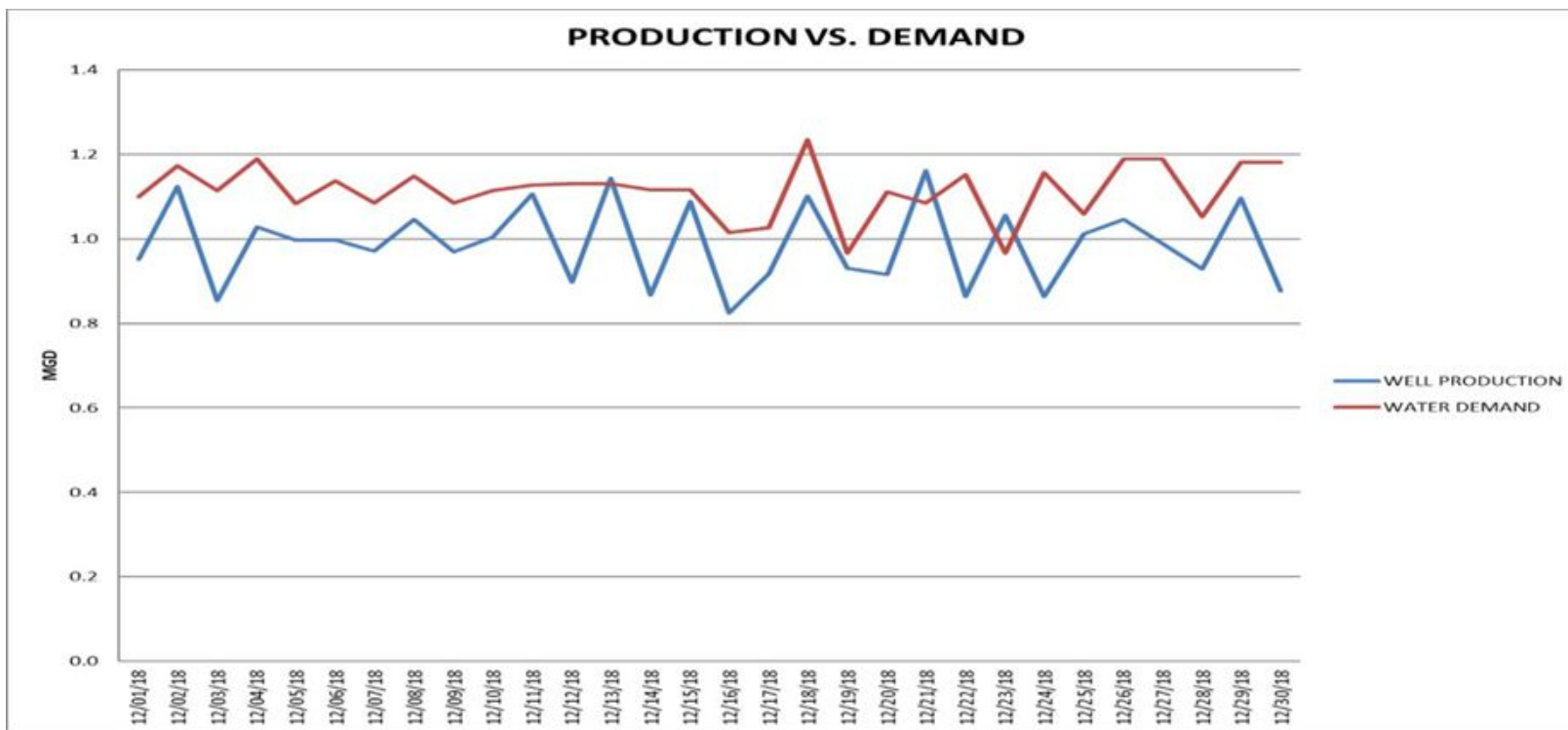
Monthly Production Summary - November 2018				
Deep Wells		36.0 MGD		
Active wells =	99 of 120			
Avg days in operation =	30 days			
Total Production =	1,080,409 Kgals			
Springs		0.00 MGD		
Avg days in operation =	0 days	*placed on standby		
Total Production =	0 Kgals			
Ugum Surface Water Plant		1.9 MGD		
Avg days in operation =	30 days			
Total Production =	56,119 Kgals			
Tumon Maui Well		1.02 MGD		
Avg days in operation =	30 days			
Total Production =	30,537 Kgals			
		1,167,065 Kgals	38.9 MGD	



Monthly Production Summary - December 2018				
Deep Wells		36.5 MGD		
Active wells =	100 of 120			
Avg days in operation =	31 days			
Total Production =	1,131,850 Kgals			
Springs		0.00 MGD		
Avg days in operation =	0 days	*placed on standby		
Total Production =	0 Kgals			
Ugum Surface Water Plant		1.9 MGD		
Avg days in operation =	31 days			
Total Production =	58,614 Kgals			
Tumon Maui Well		0.99 MGD		
Avg days in operation =	31 days			
Total Production =	30,633 Kgals			
		1,221,097 Kgals	39.4 MGD	

DW Status as of 12/31/2018	
Active	100
Grounded motor or Pump Failure	2
Out of commission	9
Secured, PFOs	2
Standby	7
TOTAL	120

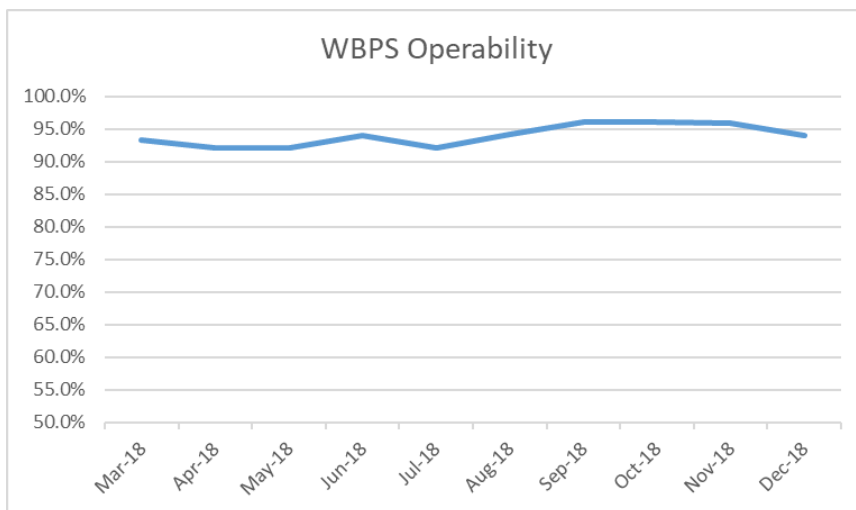
Tumon Maui Well Production vs. Demand for December 2018



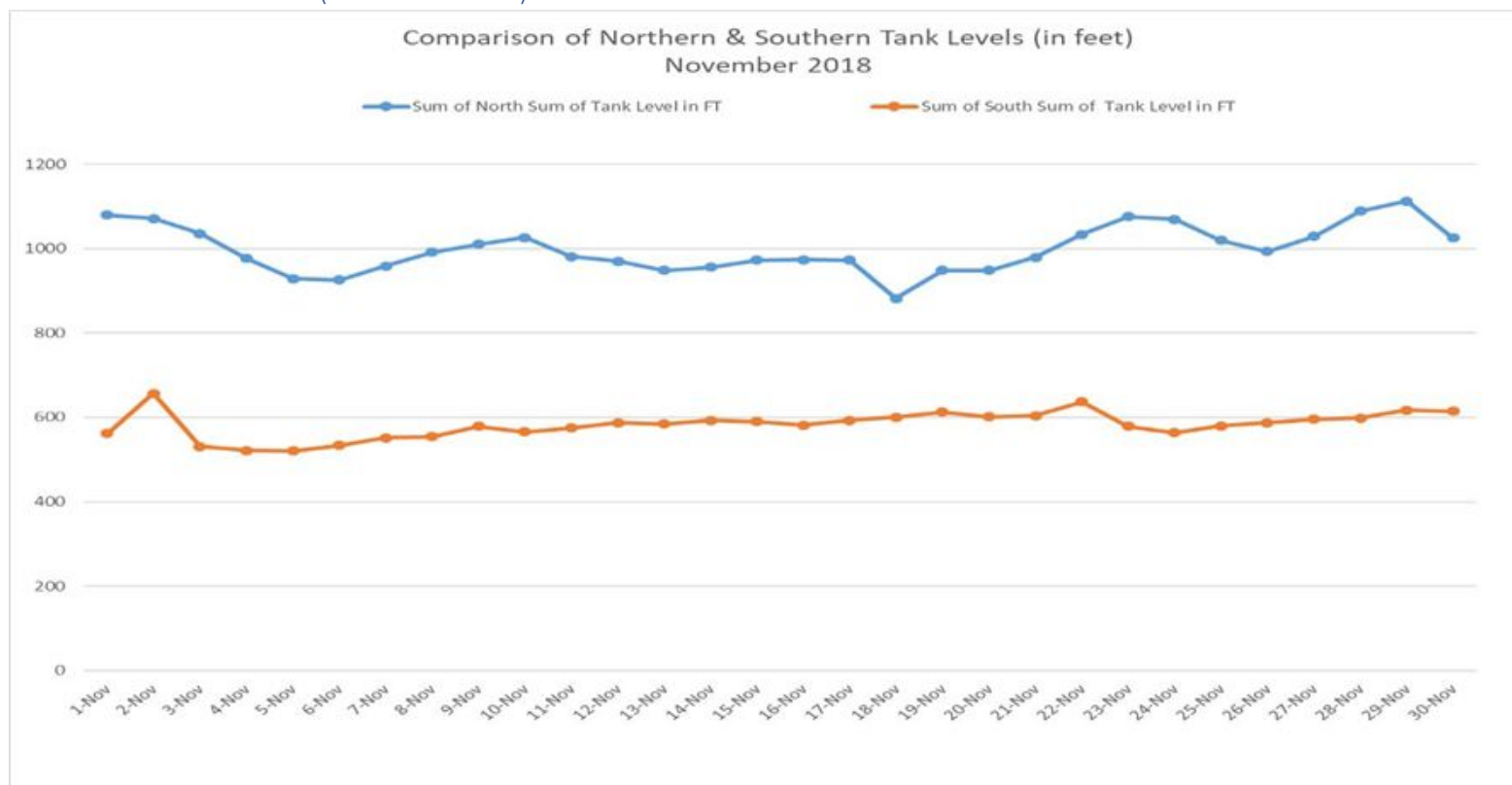
Distribution

Monthly Distribution Summary - November 2018					
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	15	100.0%
		25	50	48	96.0%

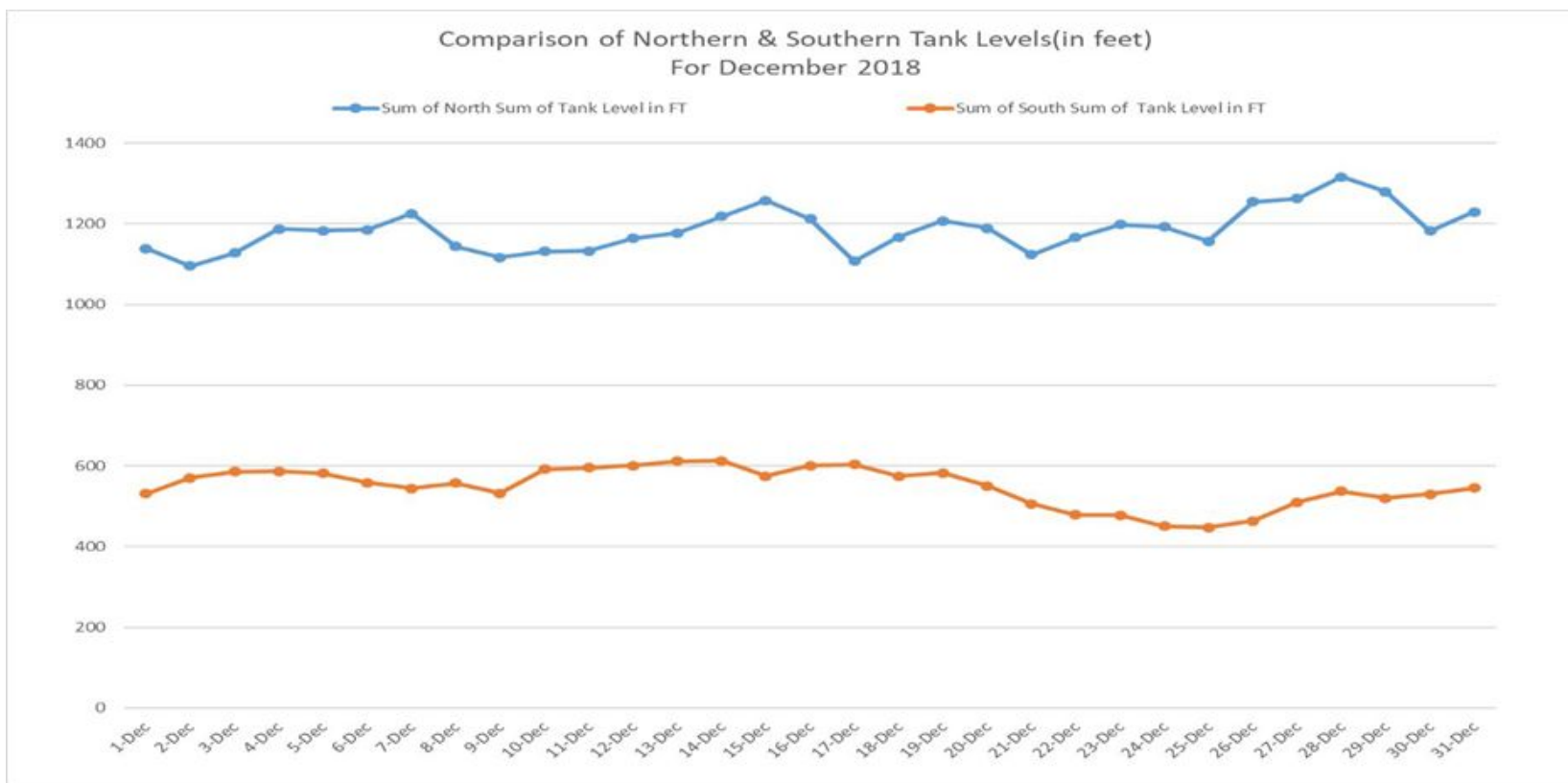
Monthly Distribution Summary - December 2018					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	20	18	90.0%
	Central	7	15	14	93.3%
	Southern	7	15	15	100.0%
		25	50	47	94.0%



Distribution – Tank Levels (November 2018)



Distribution – Tank Levels (December 2018)



Wastewater Collections

Monthly Collections Summary - November 2018

Wastewater Pump Stations

	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	44	84.6%
	Central	29	62	51	82.3%
	Southern	27	57	49	86.0%
		78	171	144	84.2%

Monthly Collections Summary - December 2018

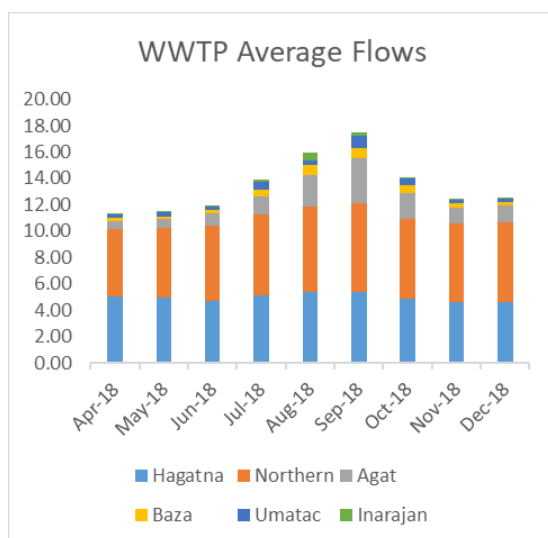
Wastewater Pump Stations

	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	44	84.6%
	Central	29	62	52	83.9%
	Southern	27	57	49	86.0%
		78	171	145	84.8%

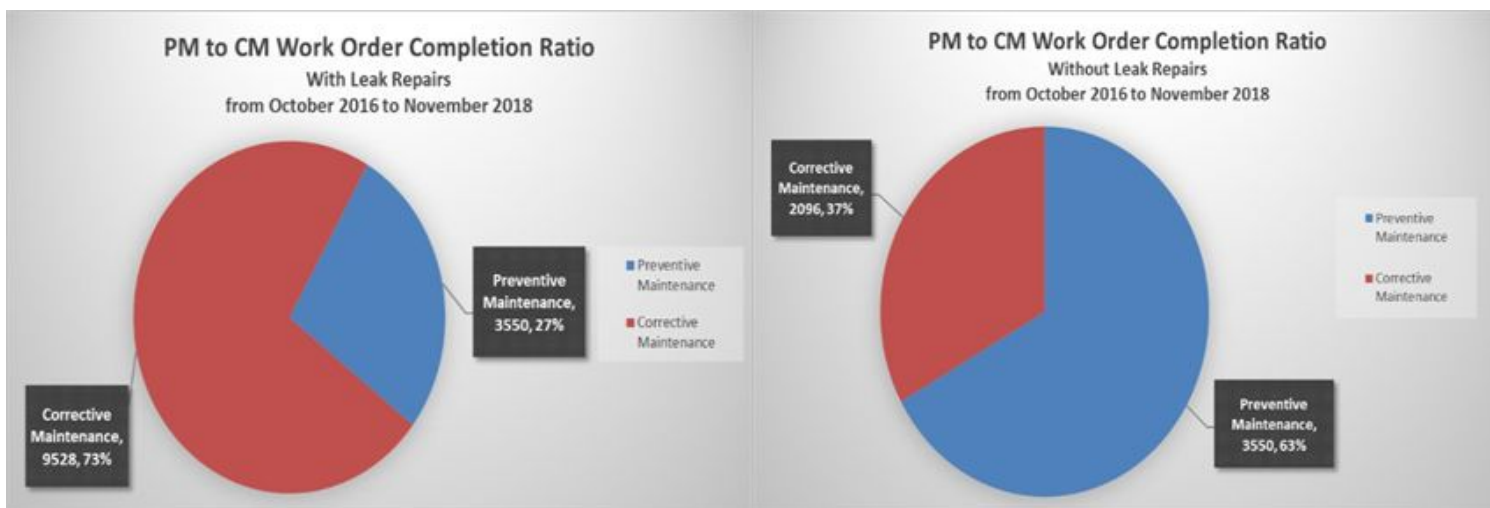
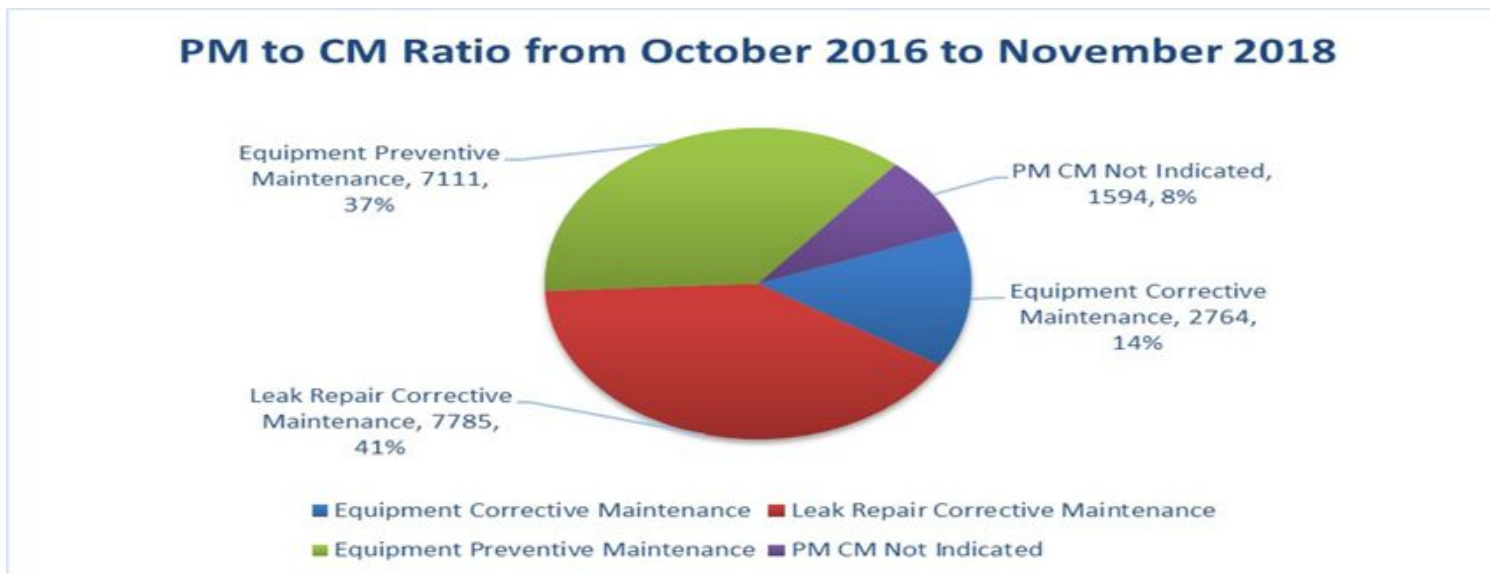


Wastewater Treatment

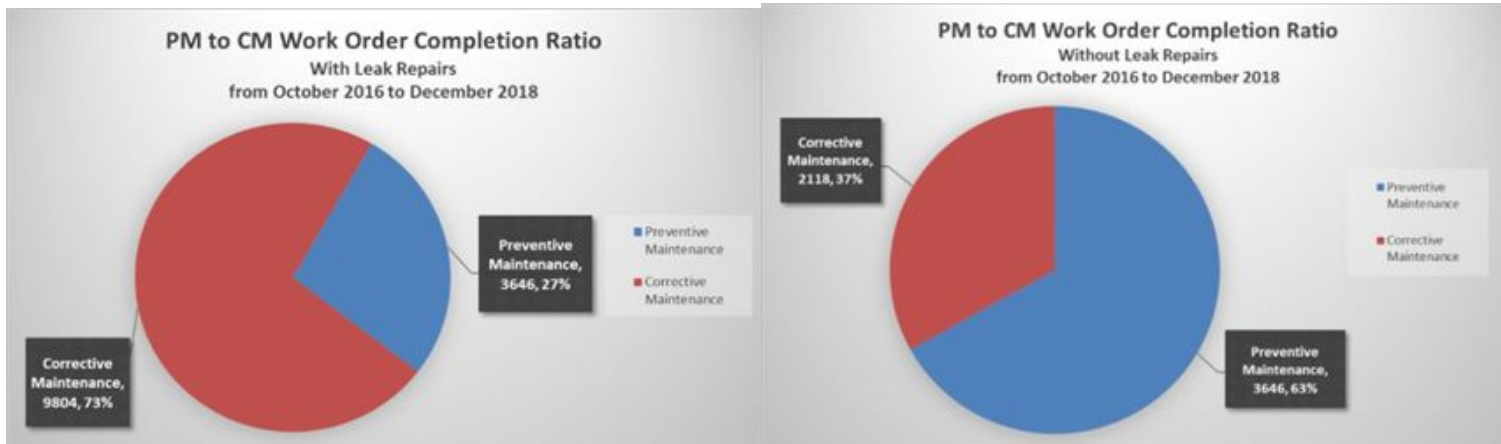
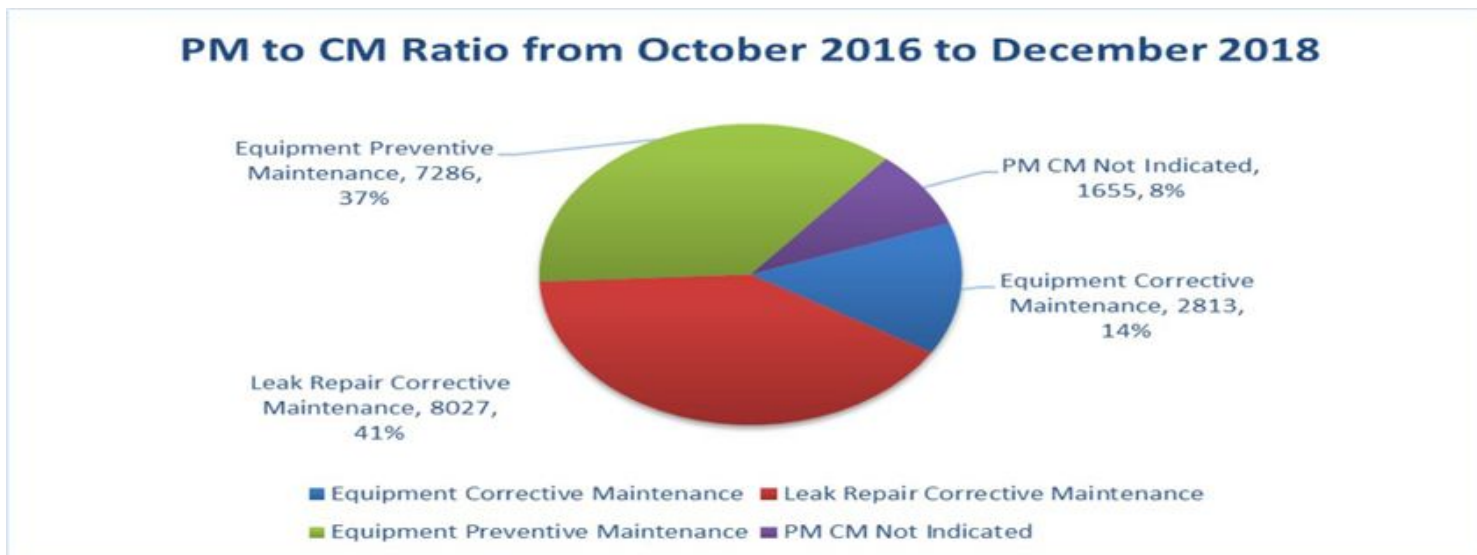
Monthly Wastewater Treatment Summary - November 2018					Monthly Wastewater Treatment Summary - December 2018				
WW Treatment Plants - Flows					WW Treatment Plants - Flows				
	Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. (\$)		Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. (\$)
	Hagatna	4.60	335,020	\$ 30,152		Hagatna	4.62	454,800	\$ 40,932
	Northern	6	594,960	\$ 53,546		Northern	6.01	360,620	\$ 32,456
	Agat	1.19				Agat	1.28		
	Baza	0.30				Baza	0.25		
	Umatac	0.30				Umatac	0.30		
	Inarajan	0.06				Inarajan	0.06		
		12.45	929,980	\$ 83,698			12.52	815,420	\$ 73,388



Asset Management for November 2018



Asset Management for December 2018



Asset Management Fiscal Year End 2018 Overall Performance Report
 (Preventive Maintenance Performance Completions by Divisions)

Department PM KPI Report Scores: 10/2017 to 9/2018

Overall Scoring for PM KPI's	% of PM Completion	% of Current Condition Captured	% of Labor Hours Captured	% of Labor Cost Captured	% of Material Cost Captured	% of Equipment Cost Captured	Overall KPI Score
O&M Support -Department	62%	0%	66%	66%	0%	0%	32%
WWC Department	28%	17%	10%	10%	0%	10%	13%
WWTP Department	95%	0%	54%	54%	2%	1%	34%
WD Department	61%	25%	28%	28%	0%	28%	28%
WP Department	7%	2%	7%	7%	2%	5%	5%
Instrumentation Division	57%	33%	25%	25%	0%	1%	23%
Electrical Division	45%	2%	40%	40%	0%	38%	27%
Operations PM KPI Score	51%	11%	33%	33%	1%	12%	23%

Asset Management Fiscal Year End 2018 Overall Performance Report
(Corrective Maintenance Performance Completions by Divisions)

Department CM KPI Report Scores: 10/2017 to 9/2018

Department Scoring for CM KPI's	% of CM Completion	% of Current Condition Captured	% of Labor Hours Captured	% of Labor Cost Captured	% of Material Cost Captured	% of Equipment Cost Captured	Overall KPI Score
O&M Support -Department	40%	0%	0.00%	0.00%	0%	0%	7%
WWC -Department	49%	0%	42%	42%	0%	37%	28%
WWTP -Department	49%	0%	33%	33%	0%	7%	20%
WD -Department	98%	0%	1%	1%	0%	0%	17%
WP - Department	75%	42%	58%	58%	4%	13%	42%
Instrumentation Division	80%	65%	56%	36%	56%	13%	51%
Electrical Division	79%	2%	60%	60%	6%	34%	40%
Operations CM KPI Score	67%	16%	36%	33%	10%	15%	29%

Operational Issues

Production & Distribution

- Leak repair/detection
 - Crews maintaining performance - Currently, there are 14 pending repairs
 - Remote leak detection services contract underway – Images ordered; field work tentatively scheduled for February
- WSCC/Dispatch –
 - SCADA preparation pending room modifications (GPA)
 - Call Center training and certification this week
- Production
 - Pump and motor orders have been released.
 - In December, improvements in production (Well M-17A back online, tuning of Hyundai-Barrigada back-feed) resulted in
- Super-Typhoon Yutu Recovery Efforts
 - From November 29 through December 23, 2018, GWA sent a twelve (12) man crew to assist our neighbors in Saipan with Super-Typhoon Yutu Recovery efforts. See Attachment A

Wastewater Collection & Treatment

- CCTV & Collections System:
 - Two of three combination trucks returned to service
 - CCTV target met for November 2018, short for December 2018, but okay for the year.
- Pump stations
 - Working to address pump operability issues
 - Critical spares and replacements procurement – protest addressed; re-evaluation completed, notices to be sent this week; orders pending
- Treatment Plants
 - Hagatna WWTP
 - Two Centrifuges are operating, but still need repair to controls on one unit;
 - Clarifier – two operational, one being repaired
 - Digester aerator – 2 of 3 operational, gear-box issue
 - Northern WWTP
 - No. 2 centrifuge gear-box replaced; now have belt replacement on-going
 - Agat-Santa Rita WWTP
 - UV-disinfection system went down for a few days but it back online
 - Contractor is being assessed LDs
 - Equalization tank construction still on-going

- Paving and sitework to be partially completed
- U-M WWTP
 - Work on-going at the site
 - Contractor Claims have been submitted for delays – evaluation on-going
- Baza Gardens
 - Baza Gardens WWTP has ceased discharging into the Togcha River
 - Flows are now being sent to A-SR WWTP
 - Phases 1 and 2 complete, punch-list items being addressed;
 - Phase 3 work still ongoing (70%); working on deductive change for equalization tanks

Meters from January 2017 through December 2018

COMPLETED FIELD ACTIVITY JAN 2017 THRU DEC 2018 (POSTED IN CIS)	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	TOTAL:	COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	745	87	393	743	1000	1007	434	378	750	969	1213	1429	84	1299	797	1489	639	1366	950	1206	17397	813
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	452	259	239	1086	2120	121	121	1056	1248	1125	767	744	1620	3106	19840	0
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	82	169	356	106	117	69	13	2	2	1	5	6	7	10	2904	0
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	127	612	858	1122	1055	463	19	5	3	6	6	2	5	40	5941	0
TOTAL:	453	312	343	743	1360	878	1351	2237	3733	2337	1095	1418	2203	3283	4505	2082	237	2362	2050	2621	1417	2118	2582	4362	46082	813

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	144	252	305	210	302	397	1013	1130	927	704	721	1041	1347	815	671	544	1159	1216	1013	1179	1345	N/A	17130	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	122	84	29	111	219	80	77	4	136	23	323	48	75	20	30	253	243	500	1209	1412	5018	\$ 2,201,856.42

# OF FIELD CREW PERFORMING CHANGE OUTS:	19	10	13	9	21	21	14	24	35	28	28*	28*	5	13	2	2	2	28	17	25	25	25	25	25	25
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS	7	4	5	6	9	9	10	13	15	15	13	13	8	11	5	4	1	13	9	5	5	5	5	5	5
# OF SUPPLY STAFF TO ISSUE MATERIALS AND PROGRAM NEW METERS:	2	2	2	2	2	2	2	2	2	2	2	2	2	4	0	0	0	2	2	2	2	2	2	2	2
# OF TEST FACILITY PERSONNEL TESTING METERS:	2	2	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	1	2	2	2	2	N/A	N/A
# OF ACCOUNTANTS CALCULATING BACK BILLS:	0	0	0	2	3	2	2	3	3	2	2	2	2	2	2	2	2	2	N/A	N/A	N/A	5	2		
TOTAL:	30	18	22	22	38	37	31	45	58	50	48	48	20	32	11	10	7	47	31	34	34	34	39	34	

*Project overtime on hold Nov 18, 2017 thru Dec 16, 2017. During this period, 4 personnel performed work on this project during the regular work day with a majority of the work completed during Nov and Dec month occurring before and after the OT moratorium.

NOTE: MARCH 18, 2018 - PROJECT ON HOLD PENDING ARRIVAL OF METERS

Project resumed June 04 2018; added 2 hrs per weekday field work on June 18, 2018

Project on hold pending new shipment of meters effective 12/22/18

REMAINING ACTIVE BADGER LP MODELS AS OF DEC 31, 2018: 11819

ACTIVE LP MODELS - PURCHASE MO & YEAR	COUNT	
2012	6610	10936 WARRANTY EXPIRED
2013	4326	
Feb-14	40	883 ACTIVE WARRANTY
Mar-14	1	
Apr-14	644	
Jun-14	9	
Aug-14	189	
TOTAL :	11819	

METER INVENTORY AMR Meters

Stock #	Size	Meter Description	New Meters	Passed Field Meters	MMP	Meters Available	Meters at MTF	Total Count	Remarks
60484	3/4"	METER, Badger AMR 5/8" X 3/4" RCDL Model M25 Disc Meter	109	146	0	255	17	272	
74131	3/4"	METER, Badger AMR 5/8" x 3/4" **WARRANTY** RCDL Model M25	0	0		0	4	4	1EA. @ KEN A
65293	3/4"	METER, Badger 5/8"x3/4" NSF61-G RCDL M25LL Disc Meter Integral	0	8	0	8	0	8	
74131	3/4"	METER, Badger AMR 5/8" x 3/4" RCDL Model M25 ***RMI***	0			0	13	13	

*NOTE: 111 ea Reserved for New install only (NEW METERS)

Public Response to Back-Billing

- Customers are surprised by back-billing
- Customers do not understand why they are being back-billing for prior year service dates
- Media reporting on back-billing and championing campaign for GWA to improve or eliminate back-billing

New Steps Added to Back-Billing Process

- Improve communication by:
 1. Send customer a letter indicating meter has been replaced (with in 10 working days)
 2. For failed meters, send customer a letter indicating meter has been tested and account is under review for potential back-billing (with in 31 working days)
 3. If back-bill is required, send customer a letter with easily understandable calculations explaining charges for prior period water consumption (with in 49 working days)
- Researching future opportunities to improve speed and accuracy of process

Current and Proposed Process Timelines

Process	Month 1					Month 2				Month 3		
	Week 1	2	3	4	5	6	7	8	9	10	11	12
Water Meter Exchange												
Water Meter Testing												
Back-Billing												

Marbo (Andy-South) Wells – Status

- Reversion documents / Notice of Entry filed by Office of U. S. Attorney in U.S District Court; property has reverted to U.S. Gov't (pending transfer to DoD)
- Informally advised that reservation was included so GWA will retain ownership of wells and no-cost easement being considered for access and use of well sites
- A copy of the reservation will be submitted to Department of Land Management. The property will be on the priority listing for the DOD Joint Land Use Group consideration for transfer to GWA.
- Press release will be issued.

One Guam Update

- Tumon Maui Well:
 - Inspection was done by NBG Public Works – no issues
- Santa Rosa Tank:
 - NAVFACMAR CO submitted the Executive Summary (briefing package) to the General for review. Waiting for response from Andersen CES regarding the MOU for the Santa Rosa Tank project.
- Agat-Santa Rita WWTP
 - GWA has not heard back from DoD who is preparing documents for “in-kind” consideration as payment for the Agat easement. It will require GWA to do simple mowing and the removal of one large tree at the lot near the Tumon Maui Well.
- OEA Projects
 - NGLA Observation Wells – SAR has been approved for all the wells except for NWF1 which is pending. WERI and NAVFACMAR met with Andersen Safety to provide GPS points and boundary for the well locations. The MEC plan for the well locations is being reviewed.
 - Sewer Interceptor – Revised SAR is still pending. Waiting on the MEC plan.
- Training and Collaboration
 - AWWA HIWPS training for operators – waiting for DoD interest
 - CIPP training scheduled for this month Oct 22-26.
- Property Transfers

Transfer of Navy laterals at Murray Road to GWA

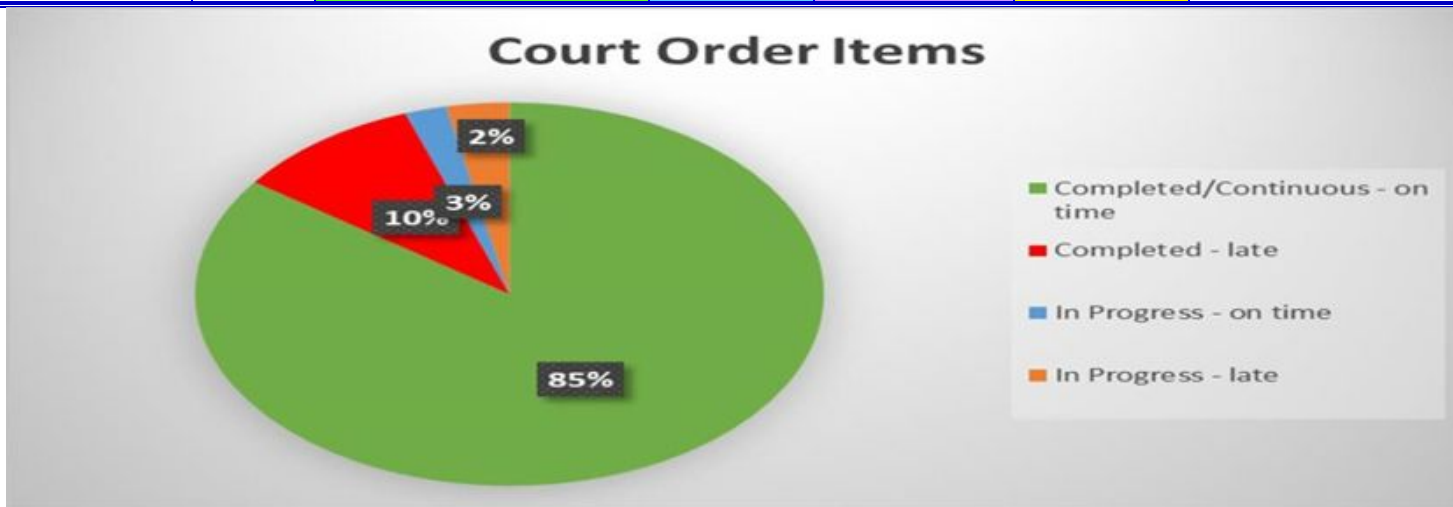
- The lines were placed on the priority listing for the DoD Joint Land Use Group's (JLUG) consideration for transfer.
- Transfer of BPM-1 monitoring well
 - the property will be prioritized for transfer to GovGuam/GWA. Waiting on letter from USGS.
- Cabras Island Water Lines – GWA is still evaluating if this transfer is desired.
- Old Naval Air Station Cliff line (Tiyan)
 - There is a pending request for the reservation for easements for utilities in the Tiyan area. Maria Lewis will inquire with Real Estate for GWA to be “assigned”. This will ensure that GWA will be able to maintain the existing infrastructure. The lift station refurbishment is in GWA's water Resources Master Plan Update.

Other

- Data Sharing SOP/MOU - In final draft stage. Waiting on review from Air Force.
- Navy Raw Water Lines - DOD is studying the raw water cost and delivery to GWA. DOD will continue to sell GWA treated water, but work on a rate with distribution costs removed.

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	79	3	9	2	96.8%



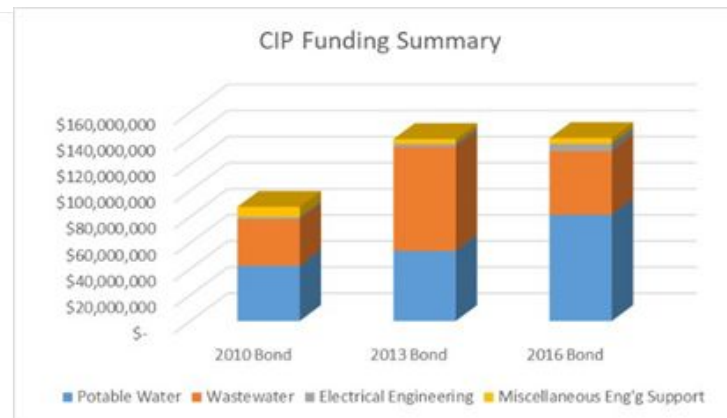
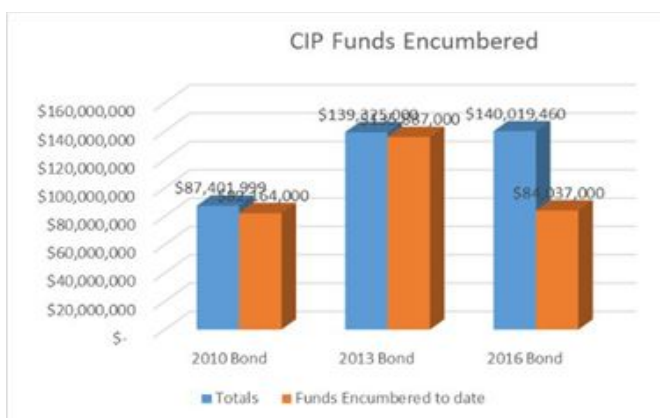
Status Information

- 1 item delayed
 - Baza Gardens Sewer Line – Completed December 31, 2018
 - Umatac-Merizo Wastewater Treatment Plant – July 2019
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
 - 12/15/2018, ASR WWTP, UV Systems - 1 & 2 - system ballast failures. (System has been restored 12/27/2018.)
 - Umatac WWTP, Bypass 12/18/2018 to 01/01/2019 (ended January 1, 2019 at 10:00 am) (Weather)
 - 12/18/2018, Gutierrez St, Agaña Heights; WW OF – (Sewer Lateral Damage)
 - 12/22/2018 Artero Drive MH overflow – FOG Yigo Pump Station sewer overflow – broken compressor hose

CIP Summary

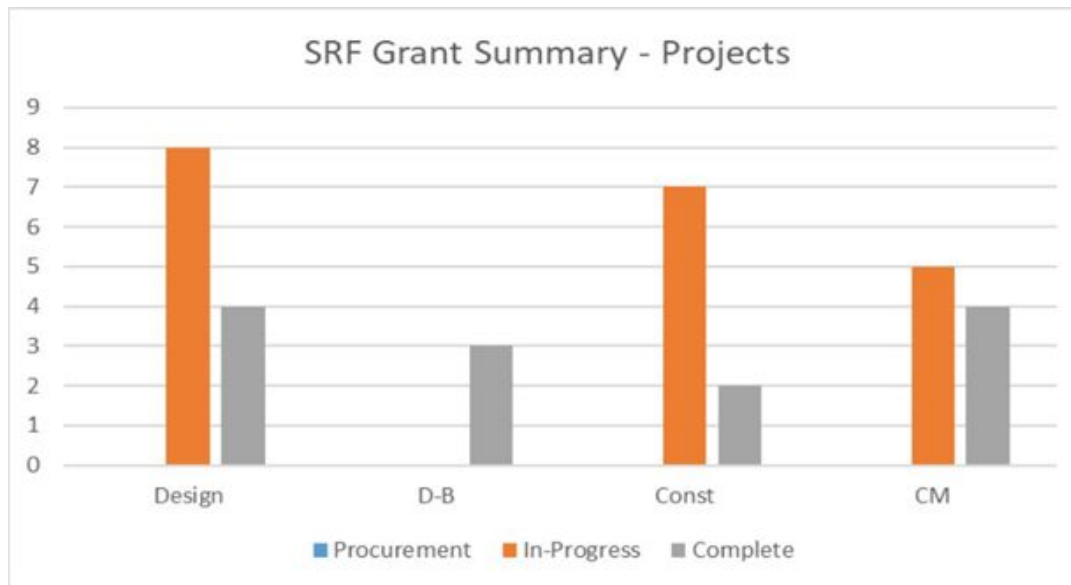
CIP Summary - Project Encumbrance (Eng'g. Report Dec 2018/Jan 2019)								
	2010 Bond		2013 Bond		2016 Bond			
	Funded	Complete	Funded	Complete	Funded	Complete	Total CIP Projects	%
Potable Water	28	17	19	13	15	4	35	49%
Wastewater	16	14	7	5	7	3	22	31%
Electrical Engineering	5	5	5	5	2	0	10	14%
Miscellaneous Eng'g Support	2	1	3	0	4	2	4	6%
Totals	51	37	34	23	28	9	71	100%
% of Total CIP by Fund Source	72%		48%		39%			

CIP Summary - Project Amounts (Eng'g. Report Dec 2018/Jan 2019)								
	2010 Bond		2013 Bond		2016 Bond			
	Funded	%	Funded	%	Funded	%	Total CIP Projects	%
Potable Water	\$ 42,099,790	48%	\$ 53,550,914	38%	\$ 81,331,136	58%	\$ 176,981,840	48%
Wastewater	\$ 35,813,403	41%	\$ 79,775,935	57%	\$ 48,801,428	35%	\$ 164,390,766	45%
Electrical Engineering	\$ 1,748,119	2%	\$ 2,383,897	2%	\$ 5,455,615	4%	\$ 9,587,631	3%
Miscellaneous Eng'g Support	\$ 7,740,687	9%	\$ 3,614,254	3%	\$ 4,431,281	3%	\$ 15,786,222	4%
Totals	\$ 87,401,999	100%	\$ 139,325,000	100%	\$ 140,019,460	100%	\$ 366,746,459	100%
Funds Encumbered to date	\$ 82,164,000	94%	\$ 135,887,000	98%	\$ 84,037,000	60%		
% of Total CIP Funding	23.8%		38.0%		38.2%			



SRF Grant Summary

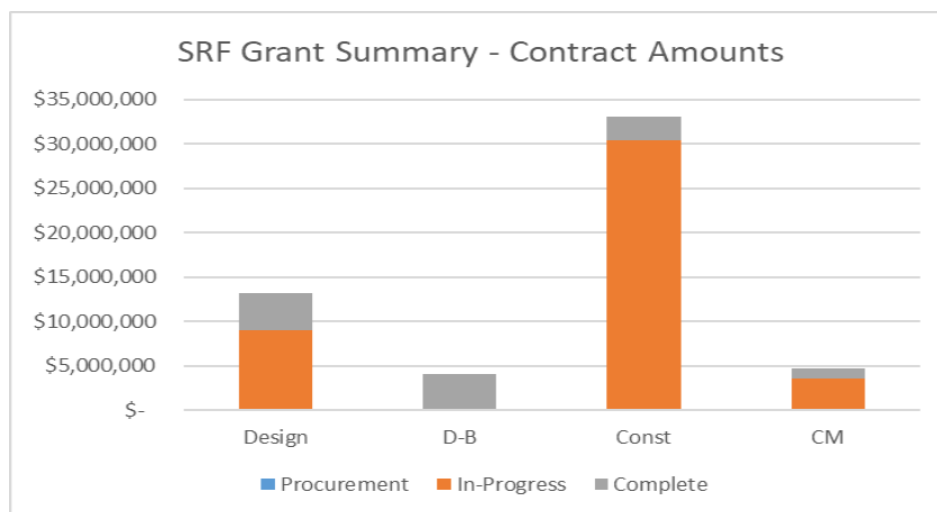
SRF Grant Summary - Projects (Dec 2018)					
	Procurement	In-Progress	Complete	Totals	%
Design	0	8	4	12	36%
D-B	0	0	3	3	9%
Const	0	7	2	9	27%
CM	0	5	4	9	27%
Totals	0	20	13	33	
%	0%	61%	39%		



SRF Grant Summary

SRF Grant Summary - Contract Amounts (Dec 2018)

	Procurement	In-Progress	Complete	Totals	%
Design	\$ -	\$ 9,018,895	4,122,719	\$ 13,141,614	24%
D-B	\$ -	\$ -	\$ 4,108,217	\$ 4,108,217	7%
Const	\$ -	\$ 30,419,202	\$ 2,615,472	\$ 33,034,673	60%
CM	\$ -	\$ 3,547,682	\$ 1,131,597	\$ 4,679,279	9%
Totals	\$ -	\$ 42,985,778	\$ 11,978,005	\$ 54,963,783	
%	0%	78%	22%		



OEA Grant Summary

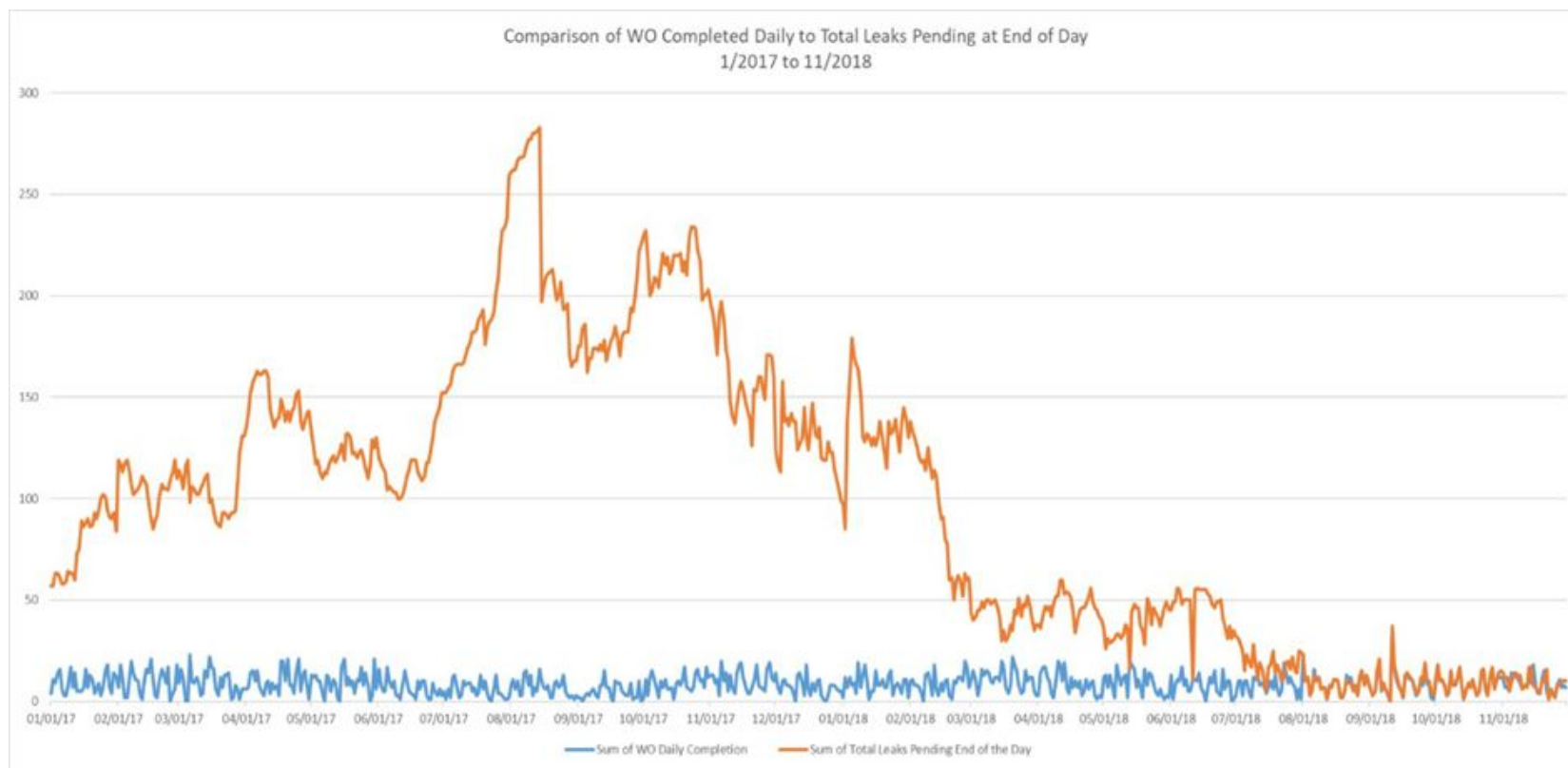
- NDWWTP Upgrades
 - 90% design submitted and reviewed.
 - Sitework bid package issued – Award pending
 - Vertical Multi-step Procurement – Step 1 Issued
 - Vertical Mutli-step Procurement Step 2 bid package planned for issuance Mar 2019
- Outfall Diffuser:
 - Bid received and currently being evaluated
- Sewer Line Interceptor Design-Build
 - 90% Design submittal expected January 18th for 1st Segment with verified CCTV and CIPP Calcs.
 - Construction start expected in January
- NGLA Observation wells – Design work completed
 - Bid package drawings and specs under review by GWA
 - Permitting issues being resolved and permits being obtained by PM/CM
 - Bid package to be issued once permits approved – expected in Mar 2019

Action Item	Date (Target)	Date (Actual)	Status	Remarks
Project Funds Available	July-16	AUG-30-16	Completed	
Land Acquisition	Jan-17	Jan-17 (Compensation Pending)	Completed	Survey complete, appraisals complete – Deed circulated for signatures
Procure PM/CM Firm	Jan-17	Jan-17 (NTP Issued Feb 10th)	Completed	
Procure Design Firm	Jul-17		Completed	Contract issued; kickoff pending
Design -- 30/60/90/Final -- Review	Jun-18	30% - completed May 60% - completed Sep 90% - Completed Dec	On-target	Project design schedule has been revised / delayed
NEPA Analysis and Determination	Feb-17	January 2019	Delayed	Pending OEA Director's Signature on FONSI
Procure Construction Firm	Dec-18		On-target	Phased construction; Phase 1 awarded; Phase 2 award in 1 st quarter '19
Construction Complete/Commence Operations	Nov-21		On-target	
Sewer line connection from MCB to GWA infrastructure	Jul-19		On-target	
MCB Initial Operating Capability	Jul-22		On-target	

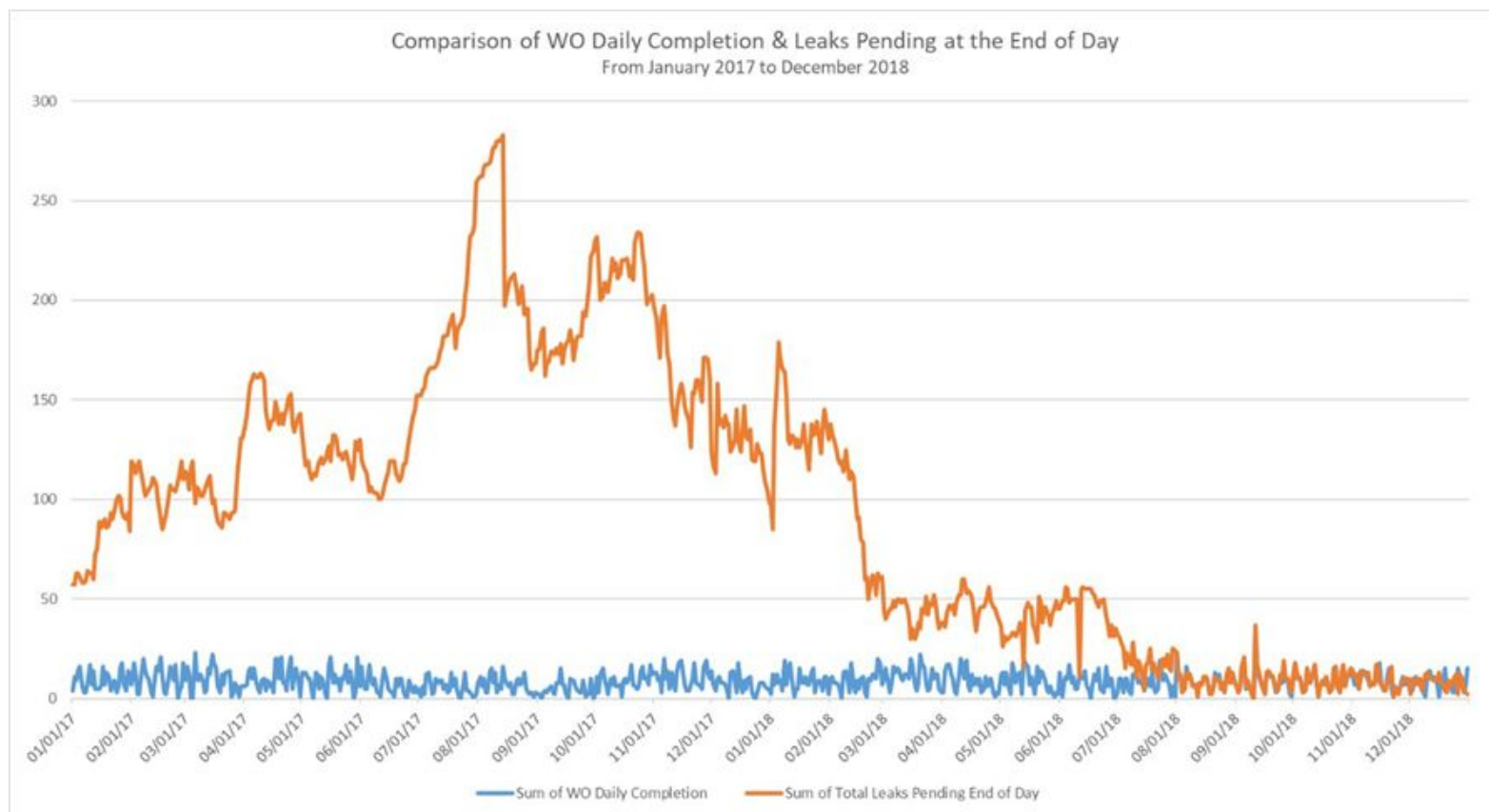
Land Acquisition Summary

GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	Ugum	Private	Letter of Acceptance of Counter Offer and Land Purchase & Sale Agreement mailed out to property owners 12/28/18
	Astumbo	Gov't. - CLTC	GWA and DLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DLM
	Piti	Private	Preliminary geotechnical investigation and archaeological investigation in the process 05/01/18
Expansion of the Northern District Wastewater Treatment Plant (NDWWTP)	Dededo	Gov't - GALC	Land acquisition completed and filed under GWA ownership 09/17/18
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2 nd follow up sent on 09/12/18. Decree of Land Registration recorded under Instrument No. 925872 08/23/18. Retracement Survey Property Map with DCA for revisions as per DLM comments 1/2/19.
	Y-8	Gov't. - CLTC	Property ownership under Guam Waterworks Authority per Grant Deed No. 928090
Booster Pump Station	Agfayan	Private	Authorization Form to perform appraisal and investigative services for L28, B19, T3734, Inarajan signed by CLTC 10/29/2018
Sewer Pump Stations	2 nd Adjacent Property to Southern Link	Private	Appraisal completed by realtor 1/09/19
Asan Springs	Asan	Federal	License Agreement for Asan Springs facility that fall on Dept. of Park Services property currently under DOI review

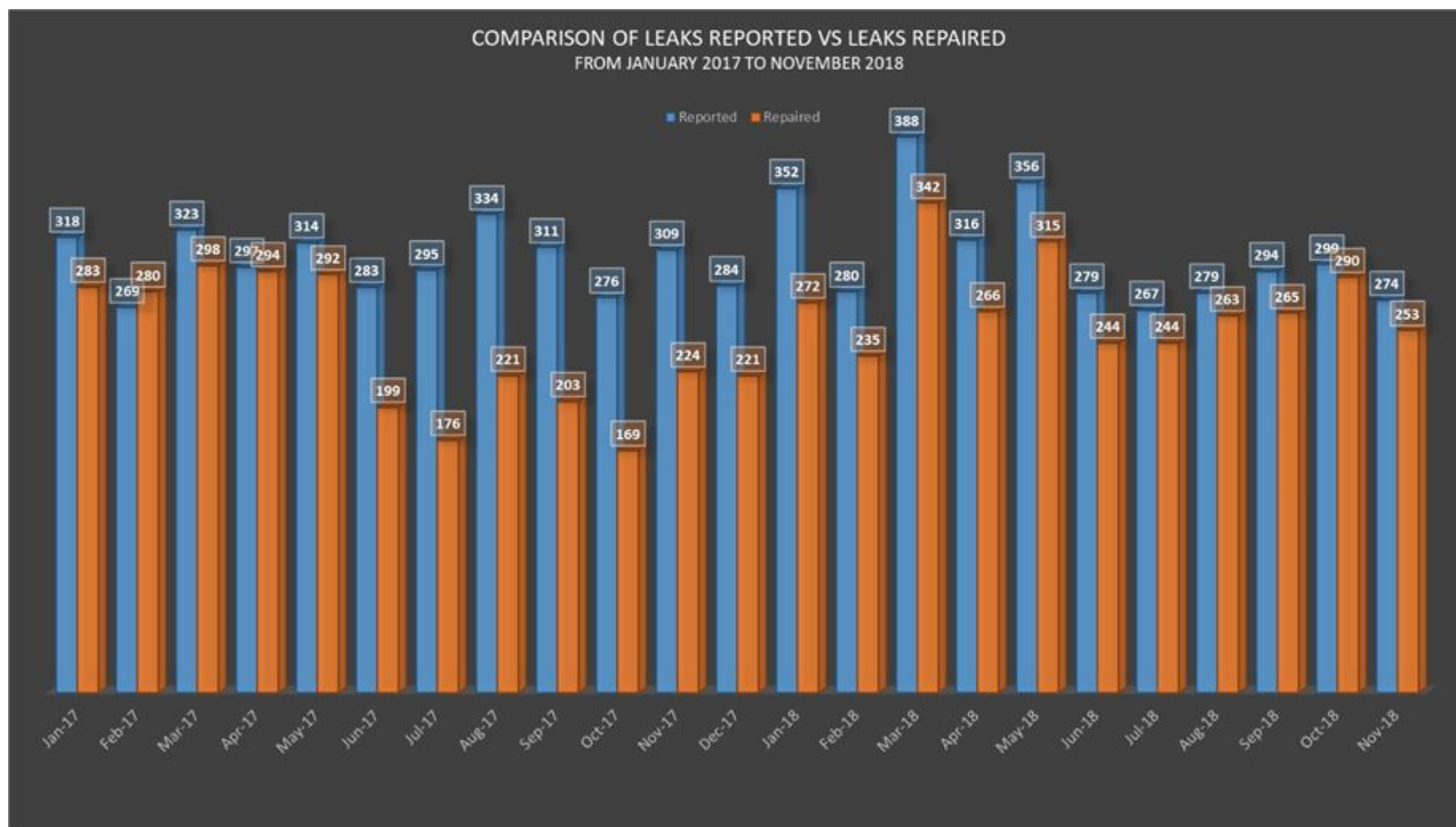
Leak Repair Summary for November 2018



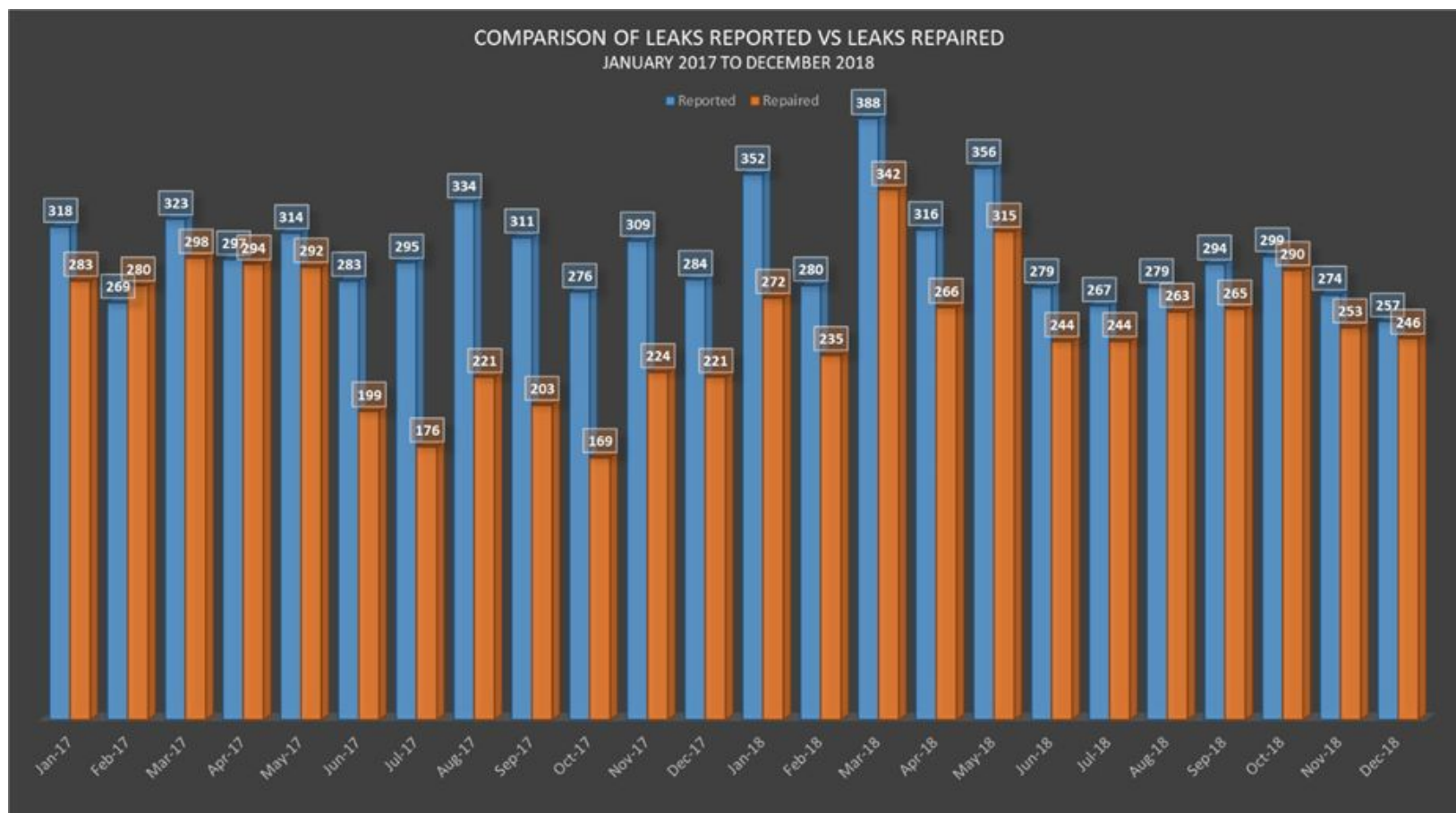
Leak Repair Summary for December 2018



Comparison of Leaks Reported vs. Leaks Repaired – November 2018



Comparison of Leaks Reported vs. Leaks Repaired – December 2018



Monthly Leak Report Cost – December 2018



Assumptions:

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

ATTACHMENT A



Saipan Typhoon Yutu Recovery Efforts

November 29th, 2018 to December 22, 2018

The Guam Waterworks Authority (GWA) partnered with Commonwealth Utilities Corporation (CUC) to provide support for the Saipan recovery efforts due to the damage caused by super typhoon Yutu. On November 29th, 2018 a crew of 12 personnel from GWA arrived in Saipan to assist with recovery efforts. Crews from GWA and CUC worked together to address issues at critical equipment and facilities that were still not in service, such as temporary and island power connections, damaged Pressure Reducing Valves (PRVs), reservoir levels depleting due to leaks within the tank service areas, and distribution system line and leak repairs.

Generator Repairs

GWA Heavy equipment mechanic worked on water and wastewater generators. A total of 24 generators were assessed. There were 15 units that were repaired, 6 units are beyond economical repair, and 3 are pending parts.

Location	Status	Comments
A2, A3, A5, A6, A7, A12, S3, S5, S11, A11, T1, W5, W8, W6	Various electrical repairs performed on these units.	Units are all functional.
A9	Inoperable due to engine	Repair vs replacement calculation
A15,	Inoperable due to stator burnt	Repair vs replacement calculation
S10	Inoperable due to engine	Repair vs replacement calculation
A-16	AVR and PTCT control	Pending parts
Calhoun	Batteries exploded, charger over charging batteries	Pending batteries and new charger.
Kumoi	Water found in exhaust, removed turbo charger and worked on turbo.	Pending new batteries.
KG II	Inoperable	Parts Obsolete
Donnie Springs	Inoperable	Parts Obsolete
Maui IV	Inoperable	Parts Obsolete

Mechanical / Equipment Repairs

GWA personnel assisted CUC with mechanical repairs to the following facilities to facilitate water system restoration in several areas.

- Installation of 2 new booster pumps for the Kagman Booster Pump Station
- Casing replacement for KV111 and KV 13
- Installation of new 6" check valve for Maui I
- Installation of submersible pump for Kumoi Booster Pump Station, remove defective 6" suction valve and install new 4" discharge valve.

Heavy Equipment Repairs

GWA crews also assisted with resolving various heavy equipment issues, which was necessary to keep water distribution system repair and restoration activities moving.

Description	Assessment	Comments
4624 Flatbed Crane	Troubleshoot found that clutch assembly not the correct thickness.	Awaiting new clutch assembly.
New Holland Backhoe	Parking breaks not releasing. Repaired solenoid.	Unit working for 4 days.
New Holland Backhoe	Hydraulic seals on cylinders leaking	BH at shop, cylinders removed for repair at vendor
Sterling Rig Tender	Electrical issues	Further troubleshooting required
Vacall Combination Pumper Truck	High velocity jetter not building pressure. Rodder pump hydraulic seals leaking, found water inside.	Need to replace seals.
Car Carrier Trailer	Trailer tire hub broke off, expedited parts and replaced two (2) each axles.	Trailer fully functional.

Leak Detection Survey

Leak detection survey efforts were focused on the Isley, As Terlaje, Dandan, and the San Vicente Tank Service Areas.

CUC and GWA worked together in the following locations San Jose, Oleai, Susupe, Chalan Kanoa, Chalan Piao, San Antonio, Koblerville, As Gonno, Obyan, and As Lito.

Initial flow testing was performed with CUC taking the lead to identify areas at which unusual high flows are occurring. Pressure readings were also taken at various fire hydrants within the distribution system to identify areas that may have background leaks. Once areas are identified, correlators were placed at specific sites overnight to collect the appropriate data. Upon retrieving data, crews utilized leak detection equipment (LD-15 & LD-18) to survey areas that correlators identified for potential leaks.

Approximately 28 miles of distribution piping were assessed and surveyed using flow testing, pressure readings, correlators, and leak detection equipment. Of the 28 miles, crews walked approximately 6.6 miles utilizing the LD-15 & LD 18 acoustic round microphones.

During this task, crews found a total of 25 leaks and recovered an estimated total of 326 gallons per minute of non-revenue water.

Line and Leak Repairs

GWA repair crews assisted with the line and leak repairs. Addressing existing typhoon-related work orders and new restoration-related work orders being called in due to more areas receiving adequate water services and pressure.

Work Order Backlog

Description	Date	Total
Typhoon Work Orders Created	10-24-18 to 12-21-18	1059
Typhoon Work Orders Closed	10-24-18 to 12-21-18	950
Typhoon Work Orders Open	10-24-18 to 12-21-18	109

Crews worked together to address larger jobs that required additional resources and personnel. Some jobs included

- the trenching and installation of new service line 300 feet in length,
- 2" saddle repairs off an 8" main line on Beach Road,
- repairs to a 12" main water line in Chalan Kanoa,
- 8" main waterline in San Vicente
- 6" main waterline in San Antonio, and
- submersible pump installation at Kumoi Booster Pump Station.

Pressure Regulating Valves

There were 22 PRVs that crews inspected and provided maintenance. Sizes ranged from 3" up to 6". Work included disassembly and inspection, restoration of pilot and control tubing with robust stainless steel tubing and fittings, replacement of pilot controls and restrictors to regulate flow. Crews were able to repair a total of 11 PRVs including 5 that have been problematic for some time.

Crews made routine checks on all the PRVs throughout the restoration recovery period to ensure that PRVs are working properly or if settings had to be adjusted as the system reacted to restoration due to the increase of water production, pressures and service demands.

	Location	Description of Work
1	Capitol Hill Above Ground PRV High Flow.	Open main valve cover and inspect/clean 4" and brought back online. Feeding 30 customers downstream on Capitol Hill road. 110up/24down. High flow 6" asleep. Low flow 4" in operation. 560' elevation.
2	Chalan Kiya 4" PRV High Flow.	Made repairs on leaking pilot system replaced fittings and brought back online.

3	Kagman 2 PRV 6" High Flow	Secured main valves and opened up bypass line to continue service. Troubleshoot & repair internals and pilot controls due to clog. Replaced steel braid hoses and plumbed pilot system to install X58 and stainless tubing. Performed start up and monitored pressures. 90up/33down.
4	Saddog Tasi PRV 4" low flow	Open up main valve to inspect internals and clean. Removed steel braid hoses and installed X58 and stainless tubing. New pilot system installed. Performed startup of 4". Dropped 6" PRV from 40 to 23psi to enable startup of 4"...set 4" PRV to 33psi and reset 6" back to 40psi. Both PRV's modulating and in full operations.
5	Saddog Tasi 6" High Flow.	Removed steel braid hoses and Installed new pilot system with X58 and stainless tubing. New pilot system installed. Serviced ARV due to clogged internals.
6	Calhoun 2 PRV 3" Low Flow	Open up main valve to inspect and clean internals. Removed steel braid hoses and installed X58 and stainless tubing. New pilot system installed. High flow set at 25psi Low flow set at 33psi.
7	Capitol Hill 2 PRV 4" Low Flow.	Removed steel braid hoses and Installed new pilot system with X58 and stainless tubing. New pilot system installed. 6" PRV High Flow set at 30psi...4" PRV Low Flow set at 35psi...Upstream at 63psi.
8	Capitol Hill 2 PRV 4" Low Flow.	Removed steel braid hose and plumb pilot system to stainless tubing set pressures and monitored modulation. 90 up/ 33 down.
9	Capitol Hill PRV above ground 4" Low Flow	Removed steel braid hose and plumb pilot system to stainless tubing set pressures and monitored modulation. 110 up/ 27 down
10	San Vicente PRV 6" High Flow.	Removed steel braid hose and plumb pilot system to stainless tubing set pressures and monitored modulation. Set 6" high flow at 25 downstream. 4" low flow set at 35psi downstream. 110 upstream. Monitored modulation.
11	Chalan Kiya PRV 4" High Flow	Replaced steel braid hoses, installed X58, plumb pilot system to install stainless tubing. Brought 4" PRV back in to service. Monitored modulation and operation. 125up/20down

Electrical Repairs

GWA Electricians worked on 34 water facilities and 11 Sewer Lift Stations. Work included the replacement of weather head, meter socket, electrical components, controls, and panels.

Once electrical work was completed for facility to be connected to island power, crews scheduled and worked with the CUC/GPA power personnel to bring facility back online.

Electricians were also called out to various facilities to troubleshoot unforeseen issues on panel, controls, instrumentation and level sensors for sewage lift stations, and generators.

Typhoon Yutu Electrical Restoration Project:

Water Facilities

Item	ID	Description	Work Order #	Remarks
1	KV 9	Meter Socket, Weather head & Other electrical components	708274	Completed 12/7/18
2	KV 23/21	Meter Socket, Weather head & Other electrical components	707993	Completed 12/5/18
3	KV 111	Meter Socket, Weather head & Other electrical components	708000	Completed 12/7/18
4	KV 116	Meter Socket, Weather head & Other electrical components	708001	Completed 12/5/18
5	KG 10	Weather head & Other electrical components	708002	Completed 12/1/18
6	KG 22	Weather head & Other electrical components	708003	Completed 12/5/18
7	KG B 2	Replacement of Split Case Pump and Motor	1900253	Completed 12/3/18
8	KG 18	Secured the Neutral Conductor at the GI Pipe	1900253	Completed 12/4/18 *
9	KG 20	Verify the motor setting and Reset Pump Controller	1900253	Completed 12/4/18 *
10	KG 22	Re-install the Weather head and Other electrical components	1900253	Completed 12/4/18 *
11	SV 7	Meter Socket, Weather head & Other electrical components	1900253	Completed 12/6/18
12	IF 28	Meter Socket, Weather head & Other electrical components	1900253	Completed 12/8/18
13	GR 4	Replaced Main Panel Breaker	1900253	Completed 12/7/18 *
14	IF220	Meter Socket Cover & Other electrical components	1900253	Completed 12/14/18
15	OB 14	Meter Socket, Weather head & Other electrical components	1900253	Completed 12/11/18
16	OB 15	Dead end insulator & Other electrical components	1900253	Completed 12/11/18
17	MQ Booster	CT Cabinet, Dead end insulator & Other electrical components	1900253	Completed 12/12/18
18	IF 217	Meter Socket Cover & Other electrical components	1900253	Completed 12/12/18

19	IF 1	Dead end insulator & Other electrical components	1900253	Completed 12/14/18
20	IF 3	Troubleshoot the station	1900253	Completed 12/14/18 *
21	IF 217	Troubleshoot the station	1900253	Completed 12/14/18 *
22	IF 6	Repair & replace guy support, other electrical components	1900253	Completed 12/14/18
23	KG 3	Dead end insulator & Other electrical components	1900253	Completed 12/15/18
24	KG 12	Dead end insulator & Other electrical components	1900253	Completed 12/15/18
25	KG 7	Troubleshoot the station	1900253	Completed 12/15/18 *
26	KG 13	Troubleshoot the station	1900253	Completed 12/15/18 *
27	IF 23	Troubleshoot, Dead end insulator & Other electrical components	1900253	Completed 12/17/18 *
28	IF 24	Repair & replace meter socket, panel, support, other electrical components	1900253	Completed 12/17/18
29	IF 25	Troubleshoot the station	1900253	Completed 12/18/18 *
30	KV Sump	De-installed Duplex Panel for KG B 1 Control Panel rehabilitation	1900253	Completed 12/18/18
31	KV 12	Meter Socket, Weather head & Other electrical components	1900253	Completed 12/19/18
32	KV 13	Meter Socket, Weather head & Other electrical components	1900253	Completed 12/19/18
33	KV 20	Dead end insulator & Other electrical components	1900253	Completed 12/20/18
34	KG B 1	Rehabilitation of Duplex Control Panel, level control and pump connection	1900253	Completed 12/21/18
		Note: * Troubleshooting / Restoration		

Wastewater Facilities

Item	ID	Description	Work Order #	Remarks
1	S 10	Weather head & Other electrical components	708004	Completed 12/3/18
2	W 5	Weather head & Other electrical components	708005	Completed 12/10/18
3	A 7	Weather head & Other electrical components	708006	Completed 12/3/18
4	A 9	Meter Socket, Weather head & Other electrical components	708007	Completed 12/4/18
5	S 6/GR 1	Weather head & Other electrical components	708008	Completed 12/1/18
6	A 13	Dead end insulator & Other electrical components	708009	Completed 12/13/18

7	W 8	Troubleshoot the station and Portable Generator	1900258	Completed 12/1/18 *
8	S 11	Weather head & Other electrical components	1900258	Completed 12/8/18
9	A 11	Weather head & Other electrical components	1900258	Completed 12/13/18
10	A 12	Weather head & Other electrical components	1900258	Completed 12/13/18
11	A 2	Troubleshoot the station	1900258	Completed 12/18/18*
		Note: * Troubleshooting / Restoration		

**GUAM WATERWORKS AUTHORITY
DECEMBER 31, 2018
FINANCIAL AND RELATED REPORTS
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GUAM WATERWORKS AUTHORITY
Balance Sheet
December 31, 2018

SCHEDULE A

	Unaudited December 31, 2018	Unaudited September 30, 2018	Increase (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
<u>Current Assets</u>			
Cash			
Unrestricted (Schedule G)	5,325,900	3,094,379	2,231,521
Restricted Funds (Schedule G)	64,470,522	66,805,781	(2,335,259)
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of \$5,719,329 at Dec 31, 2018 and \$5,516,077 at Sep 30, 2018	17,168,361	16,610,663	557,698
Other Receivable	6,050,372	5,308,837	741,535
Materials & Supplies Inventory, Net of Allowance for Obsolescence of \$64,131 at Dec 31, 2018 and \$64,131 at Sep 30, 2018	2,632,636	3,342,557	(709,921)
Total Current Assets	95,647,791	95,162,218	485,573
<u>Property, Plant and Equipment</u>			
Utility plant in service			
Water system	350,170,470	348,812,303	1,358,167
Wastewater system	304,531,954	304,531,954	-
Non-utility property	17,241,496	17,241,496	-
Total property	671,943,920	670,585,753	1,358,167
Less Accumulated Depreciation	(308,296,642)	(303,019,447)	(5,277,195)
Land	3,681,120	3,681,120	-
Construction Work in Progress	192,100,421	178,443,926	13,656,494
Property, Plant and Equipment, net	559,428,819	549,691,353	9,737,466
<u>Other noncurrent assets</u>			
Restricted cash (Schedule G)	160,838,538	177,176,880	(16,338,342)
Investments (Schedule G)	51,119,718	43,097,913	8,021,805
Other Prepaid Expenses	1,266,005	677,828	588,177
Total other noncurrent assets	213,224,260	220,952,621	(7,728,360)
Total Assets	868,300,870	865,806,191	2,494,679
Deferred outflows of resources			
Debt defeasance due to bond refunding	12,670,398	12,810,787	(140,389)
Deferred outflows from pension	4,939,650	4,939,650	-
Total Assets and Deferred Outflows of Resources	885,910,918	883,556,628	2,354,290
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET ASSETS			
<u>Current Liabilities</u>			
Current maturities of long-term debt			
Series 2010 Bond	1,800,000	1,800,000	-
Series 2014 Refunding	3,620,000	3,620,000	-
Series 2017 Refunding	295,000	295,000	-
Notes Payable	3,242,333	3,242,333	-
Accounts Payable -Trade	4,734,876	5,583,442	(848,566)
Interest Payable	12,826,707	6,427,669	6,399,039
Accrued Payroll and Employee Benefits	1,075,758	1,608,219	(532,461)
Accrued Annual Leave	1,093,607	1,059,161	34,445
Current portion of employee annual leave	604,009	567,057	36,952
Contractors' Payable	15,404,320	25,680,792	(10,276,472)
Customer and Other Deposits	2,146,657	2,131,242	15,414
Other Liabilities	82,405	106,997	(24,592)
Total Current Liabilities	46,925,671	52,121,912	(5,196,240)
<u>Long Term Debt, less current maturities</u>			
Series 2010 Revenue Bond	1,895,000	1,895,000	-
Series 2013 Revenue Bond	172,630,000	172,630,000	-
Series 2014 Refunding Bond	68,900,000	68,900,000	-
Series 2016 Revenue Bond	143,310,000	143,310,000	-
Series 2017 Refunding Bond	107,365,000	107,365,000	-
Unamortized Bond Premium/Discount	32,941,492	33,300,619	(359,127)
Notes Payable	1,496,116	2,286,691	(790,575)
Unfunded Ret Liability (GASB 67/68)	49,243,798	49,243,798	-
Employee Annual Leave, Less Current Portion	837,944	863,147	(25,202)
Total Liabilities	625,545,021	631,916,166	(6,371,144)
Deferred inflows of resources:			
Deferred inflows from pension	169,283	169,283	-
Total Liabilities and Deferred Inflows of Resources	625,714,305	632,085,449	(6,371,144)
Net Assets	260,196,614	251,471,179	8,725,435
Total Liabilities, Deferred Inflows of Resources and Net Assets	885,910,918	883,556,628	2,354,290

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative Budget vs. Actual for the period ending December 31, 2018

SCHEDULE B

	Month to Date		Variance
	Budget	Actual (Unaudited)	Favorable /
	December-18	December-18	(Unfavorable)
OPERATING REVENUES			
Water Revenues	5,813,246	6,009,596	196,349
Wastewater Revenues	3,247,265	3,309,770	62,505
Legislative Surcharge	294,667	319,609	24,942
Other Revenues	38,254	39,855	1,601
System Development Charge	97,773	79,415	(18,358)
Total Operating Revenues	9,491,205	9,758,245	267,040
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	713,975	461,779	252,196
Power Purchases	1,231,315	935,075	296,240
Total Utility Costs	1,945,290	1,396,854	548,436
Salaries and Wages	1,782,365	1,477,752	304,613
Pension and Benefits	562,238	453,518	108,719
Total Salaries and Benefits	2,344,603	1,931,271	413,332
Capitalized Labor and Benefits	(308,333)	(308,333)	(0)
Net Salaries and Benefits	2,036,269	1,622,938	413,332
Administrative and General Expenses			
Sludge removal	158,771	156,813	1,958
Chemicals	185,801	184,460	1,341
Materials & Supplies	188,606	188,214	392
Transportation	38,648	38,333	315
Communications	15,054	13,932	1,123
Claims	8,417	6,350	2,067
Insurance	79,461	75,172	4,289
Training & Travel	30,417	11,476	18,940
Advertising	12,500	10,093	2,407
Miscellaneous	137,632	136,285	1,347
Regulatory Expense	25,029	11,270	13,759
Bad Debts Provision	67,751	67,751	-
Total Administrative and General Expense	948,086	900,148	47,938
Depreciation Expense	1,759,065	1,759,065	(0)
Contractual Expense			
Audit & Computer Maint.	58,783	57,686	1,097
Building rental	38,361	35,211	3,150
Equipment rental	79,980	64,393	15,587
Legal	512	-	512
Laboratory	34,862	34,000	862
Other	213,458	207,251	6,207
Total Contractual Expense	425,956	398,540	27,415
Retiree Supp. Annuities and health care costs	249,871	234,857	15,014
Contribution to Government of Guam	51,975	50,000	1,975
Total Retiree Benefits	301,846	284,857	16,989
Total Operating Expenses	7,416,512	6,362,402	1,054,110
Earnings (Loss) from Operations	2,074,693	3,395,843	1,321,150
Interest Income-2010/13/14/16/17 Series Bond	84,943	331,712	246,769
Interest Income-Other Funds	13,856	52,321	38,465
Interest Income-SDC	2,072	11,876	9,804
Interest Expense- 2010/13/14/16/17 Series Bond	(2,387,785)	(2,137,785)	250,000
Interest Expense- ST BOG	(19,762)	(20,867)	(1,105)
Federal Expenditures	-	-	-
Loss on Asset Disposal	-	-	-
AFUDC	1,157,306	1,157,306	0
Amortization of Discount, Premium and Issuance Costs	(17,798)	119,709	137,507
Defeasance due to bond refunding	(16,201)	(186,562)	(170,361)
Deferred outflows from pension	-	-	-
Prior Year Adjustment	-	(11,173)	(11,173)
Total non-operating revenues (expenses)	(1,183,369)	(683,462)	499,907
Net Income (Loss) before capital contributions	891,324	2,712,381	1,821,057
Capital Contributions			
Grants from US Government	5,533,205	2,041,923	(3,491,282)
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	5,533,205	2,041,923	(3,491,282)
Change in Net Assets	6,424,529	4,754,304	(1,670,225)
Debt Service Calculation			
Earnings From Operations	2,074,693	3,395,843	
System Development Charge	(97,773)	(79,415)	
Retiree COLA	51,975	50,000	
Interest/Investment Income	13,856	52,321	
Depreciation	1,759,065	1,759,065	
Balance Available for Debt Service per Section 6.12	3,801,817	5,177,815	
Working Capital Reserve Available for Debt Service	934,811	949,303	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	4,736,628	6,127,118	
Debt Service			
Principal	476,250	476,250	
Interest	2,137,785	2,137,785	
Total	2,614,035	2,614,035	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.45	1.98	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.81	2.34	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative for the period ending December 31, 2018 and 2017

SCHEDULE C

	Month to Date		Variance
	Actual (Unaudited) December-18	Actual (Unaudited) December-17	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	6,009,596	5,531,297	478,299
Wastewater Revenues	3,309,770	3,191,784	117,986
Legislative Surcharge	319,609	289,209	30,400
Other Revenues	39,855	43,294	(3,439)
System Development Charge	79,415	89,249	(9,834)
Total Operating Revenues	9,758,245	9,144,833	613,412
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	461,779	723,748	261,969
Power Purchases	935,075	1,223,874	288,799
Total Utility Costs	1,396,854	1,947,622	550,768
Salaries and Wages	1,477,752	1,464,423	(13,329)
Pension and Benefits	453,518	491,682	38,164
Total Salaries and Benefits	1,931,271	1,956,105	24,835
Capitalized Labor and Benefits	(308,333)	(296,147)	12,186
Net Salaries and Benefits	1,622,938	1,659,958	37,021
Administrative and General Expenses			
Sludge removal	156,813	125,638	(31,175)
Chemicals	184,460	182,625	(1,835)
Materials & Supplies	188,214	180,995	(7,219)
Transportation	38,333	64,001	25,668
Communications	13,932	14,756	824
Claims	6,350	10,803	4,454
Insurance	75,172	76,005	833
Training & Travel	11,476	22,652	11,176
Advertising	10,093	14,226	4,133
Miscellaneous	136,285	84,611	(51,675)
Regulatory Expense	11,270	22,121	10,851
Bad Debts Provision	67,751	180,246	112,495
Total Administrative and General Expense	900,148	978,678	78,530
Depreciation Expense	1,759,065	1,606,687	(152,378)
Contractual Expense			
Audit & Computer Maint.	57,686	58,815	1,129
Building rental	35,211	36,603	1,392
Equipment rental	64,393	89,207	24,814
Legal	-	-	-
Laboratory	34,000	34,529	529
Other	207,251	200,567	(6,683)
Total Contractual Expense	398,540	419,721	21,181
Retiree Supp. Annuities and health care costs	234,857	237,462	2,605
Contribution to Government of Guam	50,000	49,833	(167)
Total Retiree Benefits	284,857	287,295	2,438
Total Operating Expenses	6,362,402	6,899,962	537,560
Earnings (Loss) from Operations	3,395,843	2,244,871	1,150,973
Interest Income-2010/13/14/16/17 Series Bond	331,712	255,374	76,338
Interest Income-Other Funds	52,321	45,645	6,676
Interest Income-SDC	11,876	13,852	(1,976)
Interest Expense- 2010/13/14/16/17 Series Bond	(2,137,785)	(2,177,468)	39,683
Interest Expense- ST BOG	(20,867)	(30,702)	9,835
Federal Expenditures	-	(62,220)	62,220
Loss on Asset Disposal	-	(162,136)	162,136
AFUDC	1,157,306	1,041,766	115,540
Amortization of Discount, Premium and Issuance Costs	119,709	(42,691)	162,400
Defeasance due to bond refunding	(186,562)	(62,043)	(124,518)
Deferred outflows from pension	-	32,592	(32,592)
Prior Year Adjustment	(11,173)	13,219	(24,392)
Total non-operating revenues (expenses)	(683,462)	(1,134,813)	451,351
Net Income (Loss) before capital contributions	2,712,381	1,110,058	1,602,323
Capital Contributions			
Grants from US Government	2,041,923	1,244,712	797,211
Grants from GovGuam & Others	-	22,681	(22,681)
Total Capital Contributions	2,041,923	1,267,392	774,531
Change in Net Assets	4,754,304	2,377,450	2,376,854
Debt Service Calculation			
Earnings From Operations	3,395,843	2,244,871	
System Development Charge	(79,415)	(89,249)	
Retiree COLA	50,000	49,833	
Interest/Investment Income	52,321	45,645	
Depreciation	1,759,065	1,606,687	
Balance Available for Debt Service per Section 6.12	5,177,815	3,857,788	
Working Capital Reserve Available for Debt Service	949,303	945,164	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	6,127,118	4,802,951	
Debt Service			
Principal	476,250	433,333	
Interest	2,137,785	1,794,910	
Total	2,614,035	2,228,243	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.98	1.73	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	2.34	2.16	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative Budget vs. Actual for the period ending December 31, 2018

SCHEDULE D

	Budget December-18	Year to Date Actual (Unaudited) December-18	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	17,439,739	16,992,755	(446,984)
Wastewater Revenues	9,741,795	9,884,154	142,359
Legislative Surcharge	884,000	904,282	20,281
Other Revenues	114,762	109,639	(5,123)
System Development Charge	293,318	163,315	(130,003)
Total Operating Revenues	28,473,614	28,054,144	(419,469)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	2,291,924	1,403,178	888,747
Power Purchases	3,693,945	3,651,437	42,508
Total Utility Costs	5,985,869	5,054,614	931,255
Salaries and Wages	5,347,095	4,905,195	441,901
Pension and Benefits	1,686,713	1,526,506	160,207
Total Salaries and Benefits	7,033,808	6,431,701	602,108
Capitalized Labor and Benefits	(925,000)	(925,000)	-
Net Salaries and Benefits	6,108,808	5,506,701	602,108
Administrative and General Expenses			
Sludge removal	461,314	431,939	29,375
Chemicals	557,404	529,026	28,379
Materials & Supplies	565,817	480,603	85,213
Transportation	115,943	110,626	5,317
Communications	45,162	28,444	16,718
Claims	25,250	7,186	18,064
Insurance	238,383	225,515	12,867
Training & Travel	91,250	31,333	59,917
Advertising	37,500	17,049	20,451
Miscellaneous	277,895	263,283	14,612
Regulatory Expense	75,087	31,778	43,309
Bad Debts Provision	203,252	203,252	-
Total Administrative and General Expense	2,694,257	2,360,034	334,222
Depreciation Expense	5,277,195	5,277,195	(0)
Contractual Expense			
Audit & Computer Maint.	176,350	128,428	47,922
Building rental	115,083	105,632	9,451
Equipment rental	239,939	200,172	39,767
Legal	1,536	-	1,536
Laboratory	104,587	77,357	27,230
Other	640,373	556,347	84,025
Total Contractual Expense	1,277,868	1,067,936	209,931
Retiree Supp. Annuities and health care costs	749,613	714,942	34,671
Contribution to Government of Guam	155,925	150,000	5,925
Total Retiree Benefits	905,538	864,942	40,596
Total Operating Expenses	22,249,535	20,131,423	2,118,112
Earnings (Loss) from Operations	6,224,079	7,922,721	(2,537,581)
Interest Income-2010/13/14/16/17 Series Bond	254,829	1,005,726	750,897
Interest Income-Other Funds	41,569	183,382	141,814
Interest Income-SDC	6,215	39,664	33,448
Interest Expense- 2010/13/14/16/17 Series Bond	(7,163,354)	(6,413,354)	750,000
Interest Expense- ST BOG	(59,286)	(50,111)	9,175
Federal Expenditures	-	-	-
Loss on Asset Disposal	-	-	-
AFUDC	3,471,917	3,471,918	1
Amortization of Discount, Premium and Issuance Costs	(53,394)	359,127	412,520
Defeasance due to bond refunding	(48,603)	(208,602)	(159,999)
Deferred outflows from pension	-	-	-
Prior Year Adjustment	-	(21,150)	(21,150)
Total non-operating revenues (expenses)	(3,550,107)	(1,633,399)	1,916,707
Net Income (Loss) before capital contributions	2,673,972	6,289,322	(620,874)
Capital Contributions			
Grants from US Government	16,599,615	2,436,112	(14,163,503)
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	16,599,615	2,436,112	(14,163,503)
Change in Net Assets	19,273,588	8,725,435	(14,784,377)
Debt Service Calculation			
Earnings From Operations	6,224,079	7,922,721	
System Development Charge	(293,318)	(163,315)	
Retiree COLA	155,925	150,000	
Interest/Investment Income	41,569	183,382	
Depreciation	5,277,195	5,277,195	
Balance Available for Debt Service per Section 6.12	11,405,450	13,369,984	
Working Capital Reserve Available for Debt Service	2,804,433	2,847,910	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	14,209,883	16,217,894	
Debt Service			
Principal	1,428,750	1,428,750	
Interest	6,413,354	6,413,354	
Total	7,842,104	7,842,104	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.45	1.70	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.81	2.07	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative for the period ending December, 2018 and 2017

SCHEDULE E

	Year to Date		Variance
	Actual (Unaudited) December-18	Actual (Unaudited) December-17	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	16,992,755	16,593,891	398,864
Wastewater Revenues	9,884,154	9,575,351	308,803
Legislative Surcharge	904,282	867,627	36,655
Other Revenues	109,639	129,882	(20,243)
System Development Charge	163,315	267,746	(104,431)
Total Operating Revenues	28,054,144	27,434,498	619,646
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	1,403,178	2,171,244	768,066
Power Purchases	3,651,437	3,671,622	20,185
Total Utility Costs	5,054,614	5,842,865	788,251
Salaries and Wages	4,905,195	4,393,270	(511,925)
Pension and Benefits	1,526,506	1,475,045	(51,461)
Total Salaries and Benefits	6,431,701	5,868,315	(563,385)
Capitalized Labor and Benefits	(925,000)	(888,441)	36,559
Net Salaries and Benefits	5,506,701	4,979,874	(526,826)
Administrative and General Expenses			
Sludge removal	431,939	376,913	(55,026)
Chemicals	529,026	547,876	18,851
Materials & Supplies	480,603	542,985	62,381
Transportation	110,626	192,003	81,377
Communications	28,444	44,267	15,822
Claims	7,186	32,410	25,225
Insurance	225,515	228,015	2,500
Training & Travel	31,333	67,956	36,623
Advertising	17,049	42,677	25,628
Miscellaneous	263,283	253,832	(9,451)
Regulatory Expense	31,778	66,364	34,585
Bad Debts Provision	203,252	540,737	337,485
Total Administrative and General Expense	2,360,034	2,936,035	576,001
Depreciation Expense	5,277,195	4,820,062	(457,133)
Contractual Expense			
Audit & Computer Maint.	128,428	176,445	48,017
Building rental	105,632	109,809	4,177
Equipment rental	200,172	267,620	67,449
Legal	-	-	-
Laboratory	77,357	103,587	26,229
Other	556,347	601,702	45,355
Total Contractual Expense	1,067,936	1,259,163	191,227
Retiree Supp. Annuities and health care costs	714,942	712,386	(2,556)
Contribution to Government of Guam	150,000	149,500	(500)
Total Retiree Benefits	864,942	861,886	(3,056)
Total Operating Expenses	20,131,423	20,699,886	568,463
Earnings (Loss) from Operations	7,922,721	6,734,612	1,188,109
Interest Income-2010/13/14/16/17 Series Bond	1,005,726	766,123	239,604
Interest Income-Other Funds	183,382	136,935	46,448
Interest Income-SDC	39,664	41,555	(1,891)
Interest Expense- 2010/13/14/16/17 Series Bond	(6,413,354)	(6,532,403)	119,050
Interest Expense- ST BOG	(50,111)	(92,107)	41,996
Federal Expenditures	-	(186,661)	186,661
Loss on Asset Disposal	-	(486,407)	486,407
AFUDC	3,471,918	3,125,299	346,619
Amortization of Discount, Premium and Issuance Costs	359,127	(128,074)	487,200
Defeasance due to bond refunding	(208,602)	(186,130)	(22,471)
Deferred outflows from pension	-	97,776	(97,776)
Prior Year Adjustment	(21,150)	39,657	(60,807)
Total non-operating revenues (expenses)	(1,633,399)	(3,404,438)	1,771,039
Net Income (Loss) before capital contributions	6,289,322	3,330,174	2,959,148
Capital Contributions			
Grants from US Government	2,436,112	3,734,135	(1,298,023)
Grants from GovGuam & Others	-	68,042	(68,042)
Total Capital Contributions	2,436,112	3,802,177	(1,366,064)
Change in Net Assets	8,725,435	7,132,351	1,593,084
Debt Service Calculation			
Earnings From Operations	7,922,721	6,734,612	
System Development Charge	(163,315)	(267,746)	
Retiree COLA	150,000	149,500	
Interest/Investment Income	183,382	136,935	
Depreciation	5,277,195	4,820,062	
Balance Available for Debt Service per Section 6.12	13,369,984	11,573,363	
Working Capital Reserve Available for Debt Service	2,847,910	2,835,492	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	16,217,894	14,408,854	
Debt Service			
Principal	1,428,750	1,300,000	
Interest	6,413,354	5,384,730	
Total	7,842,104	6,684,730	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.70	1.73	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	2.07	2.16	

		SCHEDULE F	
		As of 12/31/18	
<u>Bond Compliance</u>		(\$\$\$)	(\$\$\$)
		Per Indenture	Bond
			2010/2013/2014/2016/2017
Operation and Maintenance Fund-BOG	Equivalent to 55 days of the annual O&M budget less depreciation	\$9.7M	\$9.7M
Bond Reserve Fund - US Bank	Fully funded- Principal and Interest (Bond Series 2010, 2013, 2014 Refunding, 2016 and 2017 Refunding)	\$35.2M	\$35.2M
Operation, Maintenance, Renewal and Replacement Reserve Fund-BOG Trust	Equivalent to 1/4 of the annual O&M budget & CIP budget to be funded in 5 years (\$2M/year)	\$17.4M	\$17.4M
Capital Improvement Fund	Balance remaining in the Revenue Fund after the foregoing deposits	\$3.9K	\$26.2K

GUAM WATERWORKS AUTHORITY
Restricted and Unrestricted Cash Summary
FY2019

SCHEDULE G

Description	Unaudited December 31, 2018	Unaudited September 30, 2018	Increase (Decrease)
UNRESTRICTED			
Change Fund	2,000	2,000	-
Petty Cash	5,000	5,000	-
BOG - Deposit Accounts	5,318,900	3,087,379	2,231,521
Sub-total Unrestricted	5,325,900	3,094,379	2,231,521
RESTRICTED			
Collection Accounts	765,841	588,075	177,767
BOG Deposit Accounts	7,462,682	7,456,842	5,840
BP Deposit Accounts	1,228,714	959,151	269,563
BOG Revenue Trust Fund	8,104,130	6,535,779	1,568,351
BOG O & M Reserve	13,725,961	13,666,109	59,852
BOG Debt Service Reserve	11,391,640	11,341,967	49,673
BOG CAPEX Fund	11,425,985	16,073,011	(4,647,026)
	54,104,954	56,620,933	(2,515,980)
BOG - SDC Deposit	2,615,568	2,934,848	(319,279)
BOG - SDC CDs	7,750,000	7,250,000	500,000
Total Restricted	64,470,522	66,805,781	(2,335,259)
Reserve Funds			
BOG Series 05 OMRRRF Fund	17,423,213	17,423,213	-
BOG Series 13 Construction Fund	30,060,689	36,222,062	(6,161,373)
BOG Series 14 Refunding Construction Fund	745,145	741,895	3,249
BOG Series 16 Construction Fund	105,872,966	116,036,000	(10,163,034)
BOG Series 17 Refunding Construction Fund	6,736,525	6,753,709	(17,185)
Total Restricted - Held by Trustee	160,838,538	177,176,880	(16,338,342)
USB Series 2013 Debt Service Fund	4,705,517	2,360,451	(2,360,451)
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	(7,326,171)
USB Series 2014 Refunding Debt Service Fund	3,644,774	1,833,235	1,811,539
USB Series 2014 Refunding Debt Service Reserve Fund	8,111,119	7,972,243	138,877
USB Series 2016 Debt Service Fund	3,606,228	1,805,556	1,800,672
USB Series 2016 Debt Service Reserve Fund	7,594,613	7,594,603	10
USB Series 2010 Debt Service Fund	1,002,528	503,751	498,777
USB Series 2017 Refunding Debt Service Reserve Fund	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	2,856,791	1,429,927	1,426,864
Total Investments	51,119,718	43,097,913	(4,009,883)
Total Restricted and Unrestricted Cash	281,754,677	290,174,953	(20,451,963)

SCHEDULE H
Guam Waterworks Authority
Statement of Cash Flows (Unaudited)
FY2019
YTD
Dec-18
Increase (decrease) in cash**Cash flows from operating activities:**

Cash received from trade and others	27,029,567
Cash payments to suppliers/contractors for goods and services	(8,650,331)
Cash payments to employees for services	(7,307,910)

Net cash provided by operating activities **11,071,326**
Cash flows from capital and related financing activities:

Contributed capital received (grants)	1,833,934
Acquisition of utility plant	(21,819,215)
Repayment of Long Term Debt	(1,149,701)
Interest expense	64,949

Net cash provided by (used in) capital and related financing activities **(21,070,034)**
Cash flows from investing activities:

Transfers from (to) restricted fund	11,041,121
Interest income received	1,189,108

Net cash provided by investing activities **12,230,229**
Net increase (decrease) in cash **2,231,521**
Unrestricted cash at beginning of the period **3,094,379**
Unrestricted cash at end of period **5,325,900**

 Reconciliation of operating loss to net cash provided by
 operating activities:

Operating Income (loss) **7,258,974**

Adjustments to reconcile to net cash provided by operating activities:

Depreciation expense	5,277,195
Other Expense/income	203,221
(Increase) decrease in assets:	
Accounts receivable	(1,076,261)
Materials and supplies inventory	709,921
Other Assets	(588,177)

Increase (decrease) in liabilities:

Accounts payable, Contractors, Retention & Escrow Deposit	(171,907)
Accrued payroll	(532,461)
Customer deposits, Other liabilities	(9,178)

Net cash provided by operating activities **11,071,326**

Guam Waterworks Authority
Accounts Receivable - Government
As of December 31, 2018

SCHEDULE I**AGING**

Customer Name	No of Accounts	Current	31-60 days	61-90 days	91-120 days	Over 120 days	Outstanding Bal.
Guam Int'l Airport Authority	9	\$ 32,583	\$ 32,723	\$ 33,568	\$ 29,084	\$ 221,306	\$ 349,263
Port Authority of Guam	2	89,336	50,524	46,031	3,118	-	189,010
Guam Memorial Hospital Authority	3	34,117	39,527	30,577	-	-	104,221
Guam Power Authority	21	17,846	24	-	-	6,705	24,575
University of Guam	4	7,243	-	-	-	-	7,243
Guam Housing & Urban Renewal Authority	5	1,482	-	-	-	1,067	2,549
Guam Community College	1	1,806	-	-	-	-	1,806
GHURA-Agafu Gumas Park	1	-	-	-	-	1,117	1,117
Guam Housing Corporation	1	29	-	-	-	-	29
	49	\$ 184,442	\$ 122,798	\$ 110,177	\$ 32,201	\$ 230,196	\$ 679,814
Department of Parks & Recreation	21	136,882	166,188	160,743	137,709	458,572	1,060,093
Department of Education	44	199,916	113,997	27,766	1,376	-	343,055
Department of Public Health & Social Services	5	4,659	1,016	3,800	6,540	94,515	110,529
Mayors Council of Guam	57	12,938	16,817	3,428	24	57	33,265
New Guam Mental Health	1	15,674	-	-	-	-	15,674
Department of Public Works	9	2,454	58	-	-	7,220	9,732
Guam Fire Department	10	7,293	-	-	-	-	7,293
Department of Military Affairs/GUARNG	1	4,488	-	2,059	-	-	6,547
Office of The Governor	2	5,688	-	-	-	-	5,688
Guam Economic Development Authority	1	-	-	-	-	4,860	4,860
Sanctuary Inc	1	1,697	-	-	-	-	1,697
Department of Agriculture	2	1,587	-	-	-	-	1,587
Department of Youth Affairs	2	313	-	13	23	1,068	1,418
Office of Civil Defense	1	517	492	-	-	-	1,009
Department of Chamorro Affairs	1	948	-	-	-	-	948
Division of Senior Citizens, DPH&SS	2	403	331	173	16	-	923
Guam Police Department	1	849	-	-	-	-	849
Department of Corrections	3	849	-	-	-	-	849
National Park Service	1	-	577	-	-	-	577
The Office of The Dededo Mayor	1	171	206	-	-	-	378
Department of Mental Health	2	345	-	-	-	-	345
Department of Mental Health and Substance Abuse	1	193	-	-	-	-	193
Department of Administration	1	184	-	-	-	-	184
Guam Veterans Affairs Office	1	148	-	-	-	-	148
Guam Public Library	3	132	-	-	-	-	132
Federal Aviation Administration	1	61	-	-	-	-	61
Pacific National Historical Park	1	59	-	-	-	-	59
Merizo Mayor	1	35	-	-	-	-	35
U S Postal Service	1	24	-	-	-	-	24
Department of Agriculture-Fisheries	1	23	-	-	-	-	23
	179	\$ 398,532	\$ 299,681	\$ 197,982	\$ 145,688	\$ 566,292	\$ 1,608,175
TOTAL December 31, 2018	228	\$ 582,974	\$ 422,479	\$ 308,158	\$ 177,889	\$ 796,488	\$ 2,287,989
TOTAL September 30, 2018	326	\$ 793,948	\$ 424,797	\$ 324,413	\$ 190,444	\$ 975,977	\$ 2,709,580
	-30%	-27%	-1%	-5%	-7%	-18%	-16%

GUAM WATERWORKS AUTHORITY
2013 Series Bond Project Status
As of December 31, 2018

SCHEDULE J

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 12/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	CONSTRUCTION FUND BALANCE AS OF 12/31/18
Santa Rita Springs Booster Pump Rehab Phase II	\$ 100,000	\$ 100,000	100,000	-	\$ 100,000	\$ -	\$ -
"A" Series Well Transmission Line	\$ 400,000	\$ 369,846	369,846	(0)	\$ 369,846	\$ 0	\$ 0
Water Booster Pump Station	\$ 6,000,000	\$ 1,679,964	1,656,428	23,536	\$ 1,679,964	\$ 0	\$ 23,536
Meter Replacement Program		\$ 996,532	996,532	-	\$ 996,532	\$ (0)	\$ (0)
Barriqada Tank Repair/Replacement	\$ 6,000,000	\$ 4,987,000	4,924,959	61,652	\$ 4,986,611	\$ 389	\$ 62,041
Leak Detection	\$ 100,000	\$ 16,916	16,916	(0)	\$ 16,916	\$ 0	\$ (0)
Potable Water System Planning	\$ 800,000	\$ 624,000	603,390	20,610	\$ 624,000	\$ -	\$ 20,610
Implement Ground Water Rule	\$ 1,000,000	\$ 1,000,000	1,000,000	-	\$ 1,000,000	\$ -	\$ -
Deep Well Rehabilitation	\$ 800,000	\$ 200,000	189,930	10,071	\$ 200,000	\$ (0)	\$ 10,070
New Deep Wells at Down Hard	\$ 2,000,000	\$ -	-	-	\$ -	\$ -	\$ -
Master Meters	\$ 4,000,000	\$ 712,060	531,188	180,872	\$ 712,060	\$ (0)	\$ 180,872
Uqum Water Treatment Plant Intake	\$ 1,000,000	\$ 859,801	424,202	435,599	\$ 859,801	\$ (0)	\$ 435,599
Water Wells	\$ 4,200,000	\$ 3,030,029	2,214,198	31,324	\$ 2,245,522	\$ 784,507	\$ 815,832
Water Distribution System	\$ 12,000,000	\$ 10,912,453	9,158,386	1,451,497	\$ 10,609,884	\$ 302,569	\$ 1,754,067
Pressure Zone Realignment /	\$ 1,000,000	\$ 337,110	336,036	1,074	\$ 337,110	\$ 0	\$ 1,074
Mechanical/Electrical Equipment	\$ 430,000	\$ 426,799	261,981	164,818	\$ 426,799	\$ -	\$ 164,818
Water Reservoir Internal/External	\$ 800,000	\$ -	-	-	\$ -	\$ -	\$ -
Water System Reservoirs 2005 Improvements	\$ 21,000,000	\$ 13,878,000	12,298,211	1,579,789	\$ 13,878,000	\$ -	\$ 1,579,789
Uqum Water Treatment Plant Reservoir	\$ 7,000,000	\$ -	-	-	\$ -	\$ -	\$ -
Agana Heights & Chaot Tanks	\$ 4,500,000	\$ 1,330,287	502,527	827,761	\$ 1,330,287	\$ (0)	\$ 827,760
Tank Major Repair Yiqo#1 Manqilao#2 Aqat#2	\$ 13,500,000	\$ 11,605,000	10,204,026	1,400,599	\$ 11,604,625	\$ 375	\$ 1,400,974
Tank Major Repair Yiqo#1 Manqilao#2 Aqat#2	\$ 8,000,000	\$ -	-	-	\$ -	\$ -	\$ -
Assessment of maloiloi Elevetad & Yiqo Elevated	\$ 500,000	\$ 485,117	461,813	23,304	\$ 485,117	\$ -	\$ 23,304
Fire Hydrant Replacement Program	\$ -	\$ -	-	-	\$ -	\$ -	\$ -
Wastewater System Planning	\$ 800,000	\$ 650,901	566,364	84,537	\$ 650,901	\$ 0	\$ 84,537
Lift Station Upgrades	\$ 5,000,000	\$ 563,148	653,744	(90,596)	\$ 563,148	\$ 0	\$ (90,596)
Wastewater Collection System Repl/Rehab	\$ 6,500,000	\$ 660,313	578,438	81,875	\$ 660,313	\$ -	\$ 81,875
Baza Gardens STP Replacement		\$ 9,656,874	3,374,080	6,252,599	\$ 9,626,679	\$ 30,195	\$ 6,282,794
Facilities Plan/Design for Umatac-Merizo WWTP		\$ 371,699	364,527	7,172	\$ 371,699	\$ 0	\$ 7,172
Agat/Santa Rita STP Replacement	\$ 19,000,000	\$ 67,200,000	53,506,560	13,359,042	\$ 66,865,601	\$ 334,399	\$ 13,693,440
Agana WWTP Interim Measures		\$ 673,000	660,751	12,249	\$ 673,000	\$ 0	\$ 12,249
Umatac Merizo Replacement	\$ 2,000,000	\$ -	-	-	\$ -	\$ -	\$ -
Wastewater Pump Station Electrical Upgrade	\$ 620,000	\$ 99,861	94,964	4,897	\$ 99,861	\$ -	\$ 4,897
Electrical Upgrade - Water Wells	\$ 1,500,000	\$ 1,500,000	1,487,413	12,587	\$ 1,500,000	\$ 0	\$ 12,587
Electrical Upgrade - Water Booster	\$ 325,000	\$ -	-	-	\$ -	\$ -	\$ -
Electrical Upgrade -Water Booster	\$ 350,000	\$ 977	977	-	\$ 977	\$ -	\$ -
Electrical Upgrade - Other Water	\$ 250,000	\$ 60,700	60,700	-	\$ 60,700	\$ -	\$ -
SCADA Improvements - Phase 3	\$ 1,850,000	\$ 722,359	460,592	261,767	\$ 722,359	\$ -	\$ 261,767
SCADA Improvements - Phase 4	\$ 500,000	\$ -	-	-	\$ -	\$ -	\$ -
Laboratory Modernization	\$ 1,500,000	\$ 1,171,465	1,163,037	7,785	\$ 1,170,823	\$ 642	\$ 8,428
Land Survey	\$ 2,000,000	\$ 1,052	1,037	15	\$ 1,052	\$ -	\$ 15
General Plant Improvements / Water	\$ 2,000,000	\$ 2,441,737	1,350,918	1,090,820	\$ 2,441,737	\$ (0)	\$ 1,090,819
Allowance for COI							\$ 275,005
Interest Earned							\$ 1,035,352
Total Construction Fund (2013 Series Revenue)	\$ 139,325,000	\$ 139,325,000	\$ 110,574,668	\$ 27,297,256	\$ 137,871,924	\$ 1,453,076	\$ 30,060,689

PUC's Docket 14-04 dated February 25, 2014

GUAM WATERWORKS AUTHORITY
2014 Series Refunded Bond Project Status
As of December 31, 2018

SCHEDULE K

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 12/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	20% PUC AS OF 12/31/18	CONSTRUCTION FUND BALANCE AS OF 12/31/18
Agana Treatment Plant	\$ 10,475,000	\$ 11,065,512	11,065,512	\$ -	\$ 11,065,512	\$ (0)	\$ 2,095,000	\$ (0)
Agana Outfall	\$ 5,030,000	\$ 10,127,198	10,127,198	\$ -	\$ 10,127,198	\$ 0	\$ 1,006,000	\$ 0
Northern District (Outfall)	\$ 4,700,000	\$ 10,251,423	10,251,423	\$ -	\$ 10,251,423	\$ 0	\$ 940,000	\$ 0
Northern District WWTP Upgrade		\$ 173,681	173,681		\$ 173,681	\$ -		\$ -
Baza Gardens Wastewater Treatment Plant	\$ 500,000	\$ 297,177	297,177	\$ -	\$ 297,177	\$ (0)	\$ 100,000	\$ (0)
Interim Disinfection Facilities	\$ 581,000	\$ 3,437,311	3,408,599	\$ 28,712	\$ 3,437,311	\$ (0)	\$ 116,200	\$ 28,712
Electrical Protection	\$ 1,000,000	\$ 1,512,483	1,512,483.3	\$ -	\$ 1,512,483	\$ (0)	\$ 200,000	\$ (0)
Well Vulnerability Reduction	\$ 600,000	\$ 185,522	185,522	\$ -	\$ 185,522	\$ 0	\$ 120,000	\$ 0
Old Agat Wastewater Collection (I/I Reductic	\$ 2,155,000	\$ 1,931,659	1,931,659	\$ -	\$ 1,931,659	\$ (0)	\$ 431,000	\$ (0)
Chaot WW Pump Station/Collection System	\$ 410,000	\$ 399,120	399,120	\$ -	\$ 399,120	\$ -	\$ 82,000	\$ -
Lift Station Upgrades	\$ 230,000	\$ 149,895	149,895	\$ -	\$ 149,895	\$ 0	\$ 46,000	\$ 0
Collection Line Upgrades	\$ 200,000	\$ 62,755	62,755	\$ -	\$ 62,755	\$ 0	\$ 40,000	\$ 0
"A" Well Transmission Line	\$ 2,413,000	\$ 3,833,175	3,818,088	\$ 15,087	\$ 3,833,175	\$ (0)	\$ 482,600	\$ 15,087
Santa Rita Springs - Booster Pump Rehab.	\$ 648,000	\$ 306,841	306,841	\$ -	\$ 306,841	\$ (0)	\$ 129,600	\$ (0)
Fena Bypass Transmission line		\$ 160,913	160,913	\$ -	\$ 160,913	\$ (0)	\$ -	\$ (0)
Storage Additions	\$ 950,000	\$ -		\$ -	\$ -	\$ -	\$ 190,000	\$ -
Booster Station Upgrades	\$ 390,000	\$ 66,734	66,734	\$ -	\$ 66,734	\$ -	\$ 78,000	\$ -
Mangilao Tank Repair	\$ 800,000	\$ 398,367	397,933	\$ 434	\$ 398,367	\$ (0)	\$ 160,000	\$ 434
Ugum Tank Replacement	\$ 2,500,000	\$ -		\$ -	\$ -	\$ -	\$ 500,000	\$ -
Ugum WTP Plant Refurbishment (\$1.724,970EPA)		\$ 6,588,473	6,531,525	\$ 56,949	\$ 6,588,473	\$ (0)	\$ -	\$ 56,948
Barrigada Tank Repair/Replacement	\$ 3,000,000	\$ 65,019	65,019	\$ -	\$ 65,019	\$ 0	\$ 600,000	\$ 0
Water Reservoir Condition Assessment		\$ 1,250,000	1,249,227.16	\$ 772	\$ 1,250,000	\$ 0	\$ -	\$ 773
EarthTech Well Buyout	\$ 5,000,000	\$ 5,975,000	5,975,000	\$ -	\$ 5,975,000	\$ -	\$ 1,000,000	\$ -
Water Wastewater Master Plan	\$ 4,900,000	\$ 4,881,308	4,881,308	\$ -	\$ 4,881,308	\$ 0	\$ 980,000	\$ 0
Laboratory Modernization	\$ 800,000	\$ 135,055	135,055	\$ -	\$ 135,055	\$ 0	\$ 160,000	\$ 0
Land Survey	\$ 800,000	\$ 577,836	576,134	\$ 1,702	\$ 577,836	\$ 0	\$ 160,000	\$ 1,702
Ground Water Disinfection		\$ -			\$ -	\$ -	\$ -	\$ -
GWUDI Study		\$ 262,234	260,430	\$ 1,804	\$ 262,234	\$ -	\$ -	\$ 1,804
Contingency	\$ 12,276,023	\$ 154	-	\$ -	\$ -	\$ -	\$ -	\$ 732
Vehicles	\$ 1,100,000	\$ 1,280,000	2,130,305	\$ (850,305)	\$ 1,280,000	\$ -	\$ 220,000	\$ -
Generation Equipment	\$ 700,000	\$ 880,000	2,712	\$ 877,288	\$ 880,000	\$ 0	\$ -	\$ 27,033
Leak Detection/Line Replacement	\$ 8,200,000	\$ 5,988,494	5,988,494	\$ -	\$ 5,988,494	\$ -	\$ 1,640,000	\$ -
Automated Meter Reading	\$ 12,572,063	\$ 17,468,359	16,870,522	\$ 537,157	\$ 17,468,359.32	\$ 0	\$ 2,514,413	\$ 597,837
Total Construction Fund (2014 Series Refu	\$ 82,930,086	\$ 89,711,698	\$ 88,981,263	\$ 669,600	\$ 89,711,543	\$ 1	\$ 13,990,813	\$ 731,063
Interest Earned	\$ 6,781,612	\$ (0)				\$ (0)		\$ 14,082
Total Project Cost Funding	\$ 89,711,698	\$ 89,711,698	\$ 88,981,263	\$ 669,600	\$ 89,711,543	\$ 1	\$ 13,990,813	\$ 745,145

GUAM WATERWORKS AUTHORITY
2016 Series Bond Project Status
As of December 31, 2018

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 12/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND OUTSTANDING ENCUMBRANCES	UNOBLIGATED PROJECT COST	CONSTRUCTION FUND BALANCE AS OF 12/31/18
Water Booster Pump Station	\$ 4,139,000	\$ -			\$ -	\$ -	\$ -
Meter Replacement Program	\$ 4,501,000	\$ 1,400,000	149,970	30	\$ 150,000	\$ 1,250,000	\$ 1,250,030
Barriqada Tank Repair/Replacement	\$ 1,013,000	\$ -		-	\$ -	\$ -	\$ -
Leak Detection	\$ 1,180,000	\$ 100,000		-	\$ -	\$ 100,000	\$ 100,000
Potable Water System Planning	\$ 2,276,000	\$ 876,294	542,794	333,500	\$ 876,294	\$ -	\$ 333,500
Deep Well Rehabilitation	\$ 250,000	\$ 250,000	203	109,810	\$ 110,013	\$ 139,987	\$ 249,797
New Deep Wells at Down Hard	\$ 1,190,000	\$ 1,190,000			\$ -	\$ 1,190,000	\$ 1,190,000
Master Meters	\$ 3,616,000	\$ 2,151,539	151,539	-	\$ 151,539	\$ 2,000,000	\$ 2,000,000
Uqum Water Treatment Plant Intake	\$ 18,000	\$ -			\$ -	\$ -	\$ -
Water Wells	\$ 2,500,000	\$ 2,500,000		39,703	\$ 39,703	\$ 2,460,297	\$ 2,500,000
Water Distribution System	\$ 2,049,000	\$ -			\$ -	\$ -	\$ -
Pressure Zone Realignment /	\$ 1,141,000	\$ 1,141,000	474,196	266,804	\$ 741,000	\$ 400,000	\$ 666,804
Mechanical/Electrical Equipment	\$ 100,000	\$ -			\$ -	\$ -	\$ -
Water Reservoir Internal/External	\$ 800,000	\$ 800,000		800,000	\$ 800,000	\$ -	\$ 800,000
Water System Reservoirs 2005 Improvements	\$ 42,350,000	\$ 58,830,170	2,938,564	13,188,318	\$ 16,126,882	\$ 42,703,288	\$ 55,891,606
Uqum Water Treatment Plant Reservoir	\$ 6,410,000	\$ -			\$ -	\$ -	\$ -
Water Audit Program & Water Loss Control Plan	\$ 1,000,000	\$ 550,000		389,562	\$ 389,562	\$ 160,438	\$ 550,000
Aqana Heights & Chaot Tanks	\$ 1,220,000	\$ 1,220,000		500,000	\$ 500,000	\$ 720,000	\$ 1,220,000
Tank Major Repair Yigo#1 Mangilao#2 Aqat#2	\$ 1,895,000	\$ 1,822,133	240,068	1,582,065	\$ 1,822,133	\$ 0	\$ 1,582,065
Tank Major Repair Yigo#1 Mangilao#2 Aqat#2	\$ 10,500,000	\$ 7,300,000		7,300,000	\$ 7,300,000	\$ -	\$ 7,300,000
Fire Hydrant Replacement Program	\$ 2,000,000	\$ 1,200,000			\$ -	\$ 1,200,000	\$ 1,200,000
		\$ -			\$ -	\$ -	\$ -
Wastewater System Planning	\$ 349,000	\$ 312,983	261,988	50,995	\$ 312,983	\$ -	\$ 50,995
Lift Station Upgrades	\$ 2,404,000	\$ 1,714,755	232,880	510,620	\$ 743,500	\$ 971,255	\$ 1,481,875
Wastewater Collection System Repl/Rehab	\$ 2,920,000	\$ 1,055,478	21089.76	537,401	\$ 558,491	\$ 496,987	\$ 1,034,388
Baza Gardens STP Replacement	\$ 16,700,000	\$ 22,663,776	18,574,171	4,089,504	\$ 22,663,675	\$ 101	\$ 4,089,605
Facilities Plan/Design for Umatac-Merizo WWTP	\$ 527,000	\$ 252,105	239,065	13,040	\$ 252,105	\$ -	\$ 13,040
Aqat/Santa Rita STP Replacement	\$ 3,000,000	\$ 2,002,331	1,797,962	144,370	\$ 1,942,332	\$ 59,999	\$ 204,370
Aqana WWTP Interim Measures	\$ 827,000	\$ -			\$ -	\$ -	\$ -
Umatac Merizo Replacement	\$ 8,000,000	\$ 20,800,000	7,586,293	13,130,682	\$ 20,716,975	\$ 83,025	\$ 13,213,707
		\$ -			\$ -	\$ -	\$ -
Wastewater Pump Station Electrical Upgrade	\$ 100,000	\$ -			\$ -	\$ -	\$ -
Electrical Upgrade - Water Wells	\$ 650,000	\$ -			\$ -	\$ -	\$ -
Electrical Upgrade - Water Booster	\$ 323,000	\$ -			\$ -	\$ -	\$ -
SCADA Improvements – Phase 3	\$ 1,177,000	\$ 1,077,497	409,675	392,328	\$ 802,003	\$ 275,494	\$ 667,822
SCADA Improvements – Phase 4	\$ 6,500,000	\$ 4,378,118	181,665	3,762,084	\$ 3,943,749	\$ 434,369	\$ 4,196,453
		\$ -			\$ -	\$ -	\$ -
Laboratory Modernization	\$ 1,127,000	\$ 1,127,000	1,127,000	-	\$ 1,127,000	\$ -	\$ -
Land Survey	\$ 1,998,000	\$ 1,260,524	494,009	766,514	\$ 1,260,524	\$ 0	\$ 766,515
General Plant Improvements / Water	\$ 2,769,463	\$ 1,543,760	716,554	790,097	\$ 1,506,652	\$ 37,108	\$ 827,206
Information Technology Integration Improvements	\$ 500,000	\$ 500,000	244,068	-	\$ 244,068	\$ 255,932	\$ 255,932
Interest Earned		\$ -					\$ 2,237,257
Total Construction Fund (2016 Series Revenue)	\$ 140,019,463	\$ 140,019,463	\$ 36,383,754	\$ 48,697,427	\$ 85,081,182	\$ 54,938,281	\$ 105,872,966

CCU Regular Meeting January 22, 2019 - GWA

GUAM WATERWORKS AUTHORITY
2017 Series Refunded Bond Project Status
As of December 31, 2018

SCHEDULE M

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 12/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	CONSTRUCTION FUND BALANCE AS OF 12/31/18
Ground Water Disinfection	\$ -	\$ 500,000	\$ 438,141	\$ 61,859	\$ 500,000	\$ 0	\$ 61,859
"A" Series Well Transmission Line	\$ 600,000	\$ 475,709	\$ 474,434	\$ 1,274	\$ 475,709	\$ 0	\$ 1,275
Water Booster Pump Station	\$ 500,000	\$ 500,000	\$ 418,844	\$ 1,156	\$ 500,000	\$ (0)	\$ 81,156
Meter Replacement Program	\$ 2,500,000	\$ 10,450,000	\$ 10,255,079	\$ 18,549	\$ 10,273,628	\$ 176,372	\$ 194,921
Barrigada Tank Repair/Replacement	\$ -	\$ 5,450,000	\$ 5,442,302	\$ 7,698	\$ 5,450,000	\$ 0	\$ 7,698
Leak Detection	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ 200,000	\$ -	\$ 200,000
Potable Water System Planning	\$ 200,000	\$ 200,000	\$ 180,927	\$ 19,073	\$ 200,000	\$ -	\$ 19,073
Implement Ground Water Rule	\$ -	\$ 1,699,999	\$ 1,499,464	\$ 200,535	\$ 1,700,000	\$ (1)	\$ 200,535
Brigade II (Ugum Lift) BPS Upgrade	\$ 1,200,000	\$ 1,900,000	\$ 298,050	\$ 34,188	\$ 332,238	\$ 1,567,762	\$ 1,601,950
Deep Well Rehabilitation	\$ 548,000	\$ 548,000	\$ 548,000	\$ -	\$ 548,000	\$ -	\$ -
New Deep Wells at Down Hard	\$ 3,773,000	\$ 485,743	\$ 485,743	\$ -	\$ 485,743	\$ 0	\$ 0
Rehabilitation of Asan Springs	\$ 900,000	\$ 1,100,000	\$ 188,771	\$ 152,068	\$ 340,838	\$ 759,162	\$ 911,229
Master Meters	\$ 1,600,000	\$ 1,489,957	\$ 1,421,267	\$ 68,690	\$ 1,489,957	\$ (0)	\$ 68,690
Ugum Water Treatment Plant Intake	\$ 3,670,000	\$ 700,000	\$ 543,615	\$ 156,385	\$ 700,000	\$ -	\$ 156,385
Water Wells	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Distribution System	\$ 384,000	\$ 3,174,748	\$ 3,174,748	\$ -	\$ 3,174,748	\$ (0)	\$ (0)
Pressure Zone Realignment /	\$ 3,550,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Northern System Water Distribution	\$ 2,725,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Central Water Distribution System 2005	\$ 1,200,000	\$ 775,002	\$ 730,182	\$ 44,820	\$ 775,002	\$ (0)	\$ 44,820
Southern Water Distribution System	\$ 1,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mechanical/Electrical Equipment	\$ 1,360,000	\$ 1,200,000	\$ 1,079,495	\$ 120,505	\$ 1,200,000	\$ (0)	\$ 120,505
Water Reservoir Internal/External	\$ 500,000	\$ 2,150,000	\$ 1,083,817	\$ 429,866	\$ 1,513,683	\$ 636,317	\$ 1,066,183
Water Reservoir Internal/External	\$ 2,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water System Reservoirs 2005 Improvements	\$ 11,697,000	\$ 1,050,000	\$ 1,050,000	\$ -	\$ 1,050,000	\$ 0	\$ 0
Distribution System Upgrades	\$ 3,182,000	\$ 474,160	\$ 456,678	\$ 17,481	\$ 474,160	\$ 0	\$ 17,482
Ugum Water Treatment Plant Reservoir	\$ 3,672,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Audit Program & Water Loss Control Plan	\$ -	\$ 78,459	\$ 15,031	\$ 63,428	\$ 78,459	\$ 0	\$ 63,429
Production Plan / Reduce Navy Purchases	\$ 100,000	\$ 100,000	\$ 94,286	\$ 5,714	\$ 100,000	\$ -	\$ 5,714
Hydraulic Assessment of Tank	\$ 500,000	\$ 497,004	\$ 2,996	\$ 2,996	\$ 500,000	\$ -	\$ 2,996
Agana Heights & Chaot Tanks	\$ 4,700,000	\$ 4,350,014	\$ 349,986	\$ 4,700,000	\$ 4,700,000	\$ -	\$ 349,986
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	\$ 1,848,013	\$ 1,765,504	\$ 82,510	\$ 1,848,013	\$ (0)	\$ 82,509	\$ -
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Assessment of malojloj Elevetad & Yigo Elevated	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ 200,000	\$ -	\$ -
Public Water System Asser Inventory/Condition Assessment	\$ 100,000	\$ 100,000	\$ 98,414	\$ 1,586	\$ 100,000	\$ -	\$ 1,586
Public Water System GIS & Mapping	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 50,000	\$ -	\$ -
Wastewater System Planning	\$ 1,500,000	\$ 1,474,000	\$ 1,468,176	\$ 5,824	\$ 1,474,000	\$ -	\$ 5,824
Wastewater Vehicles	\$ 235,000	\$ 235,000	\$ 209,795	\$ 25,205	\$ 235,000	\$ 0	\$ 25,205
NDWWTP - Chlorine Tanks	\$ 250,000	\$ 250,000	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ -
Tumon Bay Sewer Upgrades	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wastewater Collection System Repl/Rehab	\$ -	\$ 1,001,323	\$ 723,591	\$ 187,564	\$ 911,155	\$ 90,168	\$ 277,732
Facilities Plan/Design for Baza Gardens WWTP	\$ 1,250,000	\$ 1,250,000	\$ 1,245,244	\$ 4,756	\$ 1,250,000	\$ -	\$ 4,756
Facilities Plan/Design for Agat-Santa Rita WWTP	\$ 900,000	\$ 899,630	\$ 891,702	\$ 7,928	\$ 899,630	\$ -	\$ 7,928
Priority 1 Sewer Upgrades - Baza Gardens WWTP	\$ 650,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Baza Gardens STP Replacement	\$ 3,567,000	\$ 1,488,378	\$ 1,151,947	\$ 314	\$ 1,152,261	\$ 336,117	\$ 336,431
Facilities Plan/Design for Umatac Merizo WWTP	\$ -	\$ 853,858	\$ 760,845	\$ 93,013	\$ 853,858	\$ (0)	\$ 93,013
Agat/Santa Rita STP Replacement	\$ 2,968,000	\$ 2,217,700	\$ 2,217,313	\$ 387	\$ 2,217,700	\$ -	\$ 387
Northern District WWTP Primary Treatment Upgrades	\$ -	\$ 11,743,514	\$ 11,532,253	\$ 25,059	\$ 11,557,313	\$ 186,201	\$ 211,261
Biosolids Management Plan	\$ -	\$ 200,000	\$ 196,414	\$ 3,586	\$ 200,000	\$ -	\$ 3,586
Agana WWTP Interim Measures	\$ -	\$ 11,300,000	\$ 11,254,925	\$ 45,076	\$ 11,300,000	\$ (0)	\$ 45,075
I&I SSES Southern	\$ -	\$ 800,000	\$ 794,722	\$ 5,278	\$ 800,000	\$ (0)	\$ 5,278
I&I SSES Central	\$ -	\$ 850,000	\$ 794,325	\$ 55,675	\$ 850,000	\$ -	\$ 55,675
I&I SSES Northern	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Umatac Merizo Replacement	\$ -	\$ 250,000	\$ 247,431	\$ 2,569	\$ 250,000	\$ -	\$ 2,569
Northern District WWTP Secondary Treatment Upgrades	\$ -	\$ 1,000,000	\$ 948,250	\$ -	\$ 948,250	\$ 51,750	\$ 51,750
Well Electrical Protection	\$ 26,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SCADA Pilot Project	\$ 300,000	\$ 61,950	\$ 19,812	\$ 42,138	\$ 61,950	\$ (0)	\$ 42,138
Electrical Upgrade - Water Wells	\$ 3,000,000	\$ 354,227	\$ 339,948	\$ 14,278	\$ 354,227	\$ 0	\$ 14,279
Electrical Upgrade - Water Booster	\$ 325,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical Upgrade - Water Booster	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical Upgrade - Other Water	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SCADA Improvements - Phase 1	\$ 250,000	\$ 250,000	\$ 194,849	\$ 55,151	\$ 250,000	\$ -	\$ 55,151
SCADA Improvements - Phase 2	\$ 1,100,000	\$ 1,056,986	\$ 1,028,284	\$ 28,702	\$ 1,056,986	\$ -	\$ 28,702
SCADA Improvements - Phase 3	\$ 2,500,000	\$ 24,956	\$ 24,956	\$ -	\$ 24,956	\$ 0	\$ 0
SCADA Improvements - Phase 4	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Laboratory Modernization	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land Survey	\$ 1,500,000	\$ 499,688	\$ 471,451	\$ 28,237	\$ 499,688	\$ 0	\$ 28,237
General Plant Improvements / Water	\$ 14,370,000	\$ 7,241,000	\$ 7,241,000	\$ 0	\$ 7,241,000	\$ 0	\$ 0
Interest Earned	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 181,568
Total Construction Fund (2010 Series Revenue Bond)	\$ 87,402,000	\$ 87,402,000	\$ 80,847,043	\$ 2,751,108	\$ 83,598,151	\$ 3,803,849	\$ 6,736,525

1.) PUC's Docket 11-01 \$29,000,000.00 dated 09/19/11 authorized GWA for reallocation

2.) PUC's Docket 11-01 Reallocation of \$23,246,000.00 dated 07/30/12

3.) PUC's Docket Reallocation dated February 2013



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

Issues for Decision

Resolution No. 11-FY2019

Relative to Approval of Increase in Project Funding for the Island-wide Well Site Rehabilitation (D-03, D-17, D-18, D-22, and M-09)

What are the objectives of the proposed changes and are they necessary and urgent?

The objective of the requested increase in funding is to have funds available to negotiate and execute a final change order that encompasses all additional work items necessary for the final project completion. Items to be addressed in the final change may include but are not limited to the following items:

1. Required Changes to Programmable Logic Controller (PLC) configuration,
2. Replacement and relocation for electrical handholes to comply with GPA requirements,
3. Reimbursement for GPA power invoices for operation of the wells following substantial completion,
4. Replacement of components determined necessary for proper operation of the chlorination system,
5. Other potential issues regarding system start-up and troubleshooting

Where is the project located?

This project is located at Groundwater Wells D-03, D-17, D-18, D-22, and M-09 within the villages of Dededo, and Mangilao. Construction activities will be limited to the well sites.

How much will it cost?

The original contract value for this project is Four Million Six Hundred Eighty-Nine Thousand Eight Hundred Eighty-Eight Dollars (\$4,689,888.00), plus a ten percent (10%) contingency of Four Hundred Sixty-Eight Thousand Nine Hundred Eighty-Eight Dollars and Eighty Cents (\$468,988.80).

With eight (8) previously approved changed orders in the amount of One Million Four Hundred Sixty-Eight Thousand Three Hundred Fifty-Three Dollars and Nineteen Cents (\$1,468,353.19), the current total contract value is Six Million One Hundred Fifty-Eight Thousand Two Hundred Forty-One Dollars and Nineteen Cents (\$6,158,241.19);

This additional funding request of Two Hundred Thirty Thousand Dollars (\$230,000.00) will bring the total authorized funding amount to Six Million Four Hundred Six Thousand Twenty-Three Dollars and Eighty Cents (\$6,406,023.80).

When will it be completed?

The project will be completed in February 2019.

What is the funding source?

The funding for this project will be from USEPA Grant and, if necessary, revenue funds and GWA Bond Funds applicable to the project.



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

RESOLUTION NO. 11-FY2019

**RELATIVE TO APPROVAL OF INCREASE IN PROJECT FUNDING FOR ISLAND-
WIDE WELL SITE REHABILITATION (D-03, D-17, D-18, D-22, M-09)
PROJECT W15-004-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, GWA has received a grant from the United States Environmental Protection Agency (“USEPA”) under the State Revolving Fund (“SRF”) program to repair and rehabilitate the water and wastewater system infrastructure; and

WHEREAS, GWA has a number of important USEPA SRF projects including the rehabilitation, repair, or replacement of groundwater wells D-03, D-17, D-18, D-22, and M-09, which have been inoperable for a significant amount of time; and

WHEREAS, the inoperability has inhibited the full optimization of the island’s system water pressure and contributed to supply deficiencies; and

WHEREAS, on August 12, 2016, GWA entered into a contract with Pacific Rim Constructors, Inc. (PRC) to perform the construction services for the Island-wide Well Site Rehabilitation (D-03, D-17, D-18, D-22, and M-09) project; and

WHEREAS, various additional work items have been necessary to complete the work for the contract including but not limited to such items as:

1. Required Changes to Programmable Logic Controller (PLC) configuration,
2. Replacement and relocation for electrical handholes to comply with GPA requirements,
3. Reimbursement for GPA power invoices for operation of the wells following substantial completion,
4. Replacement of components determined necessary for proper operation of the chlorination system,
5. Other potential issues regarding system start-up and troubleshooting; and

WHEREAS, GWA is working towards establishing a final contract amount to include all outstanding items associated with the project to allow this project to be completed and formally closed out: and

WHEREAS, to facilitate GWA negotiations on the final contract amount and to enable GWA to execute the final contract change order, an estimated additional amount of Two Hundred Thirty Thousand Dollars (\$230,000.00) is needed to complete the final changes necessary for the project; and

WHEREAS, CCU approved the original contract value for this project in the amount of Four Million Six Hundred Eighty-Nine Thousand Eight Hundred Eighty-Eight Dollars (\$4,689,888.00), plus a ten percent (10%) contingency of Four Hundred Sixty-Eight Thousand Nine Hundred Eighty-Eight Dollars and Eighty Cents (\$468,988.80), which brought the total authorized funding amount to a maximum of Five Million One Hundred Fifty-Eight Thousand Eight Hundred Seventy-Six Dollars and Eighty Cents (\$5,158,876.80); and

WHEREAS, with eight (8) previously approved changed orders in the amount of One Million Four Hundred Sixty-Eight Thousand Three Hundred Fifty-Three Dollars and Nineteen Cents (\$1,468,353.19), the current total contract value is Six Million One Hundred Fifty-Eight Thousand Two Hundred Forty-One Dollars and Nineteen Cents (\$6,158,241.19); and

WHEREAS, CCU approved an authorized funding amount of Six Million One Hundred Seventy-Six Thousand Twenty-Three Dollars and Eighty Cents (\$6,176,023.80) under

Resolution 46-FY2017, and there is Seventeen Thousand Seven Hundred Eighty-Two Dollars and Sixty-One Cents (\$17,782.61) of current authorized funding that has not been allocated to the Contractor; and

WHEREAS, GWA Management seeks approval of additional funding to facilitate GWA negotiations on the final contract amount and to enable GWA to execute the final contract change order, an additional amount of Two Hundred Thirty Thousand Dollars (\$230,000.00) which would bring the total authorized funding to Six Million Four Hundred Six Thousand Twenty-Three Dollars and Eighty Cents (\$6,406,023.80); and

WHEREAS, funding for the change order work will be from the USEPA State Revolving Fund and, if necessary, revenue funds and GWA Bond funds; and

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU hereby authorizes the management of GWA to negotiate the final contract amount and issue a final Change Order for the contract within the remaining authorized amount of Seventeen Thousand Seven Hundred Eighty-Two Dollars and Sixty-One Cents (\$17,782.61) and the requested additional amount of Two Hundred Thirty Thousand Dollars (\$230,000.00) for a not to exceed amount of Two Hundred Forty-Seven Thousand Seven Hundred Eighty-Two Dollars and Sixty-One Cents (\$247,782.61).
3. The CCU hereby further approves the increase in funding authorized for this project of Two Hundred Thirty Thousand Dollars (\$230,000.00), to bring the total authorized funding amount to a maximum of Six Million Four Hundred Six Thousand Twenty-Three Dollars and Eighty Cents (\$6,406,023.80).
4. The CCU approves that the funding for the change order work will be from the USEPA State Revolving Fund and, if necessary, revenue funds and GWA Bond funds applicable to the project.

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

DULY AND REGULARLY ADOPTED, this 22nd day of January 2019.

Certified by:

Attested by:

JOSEPH T. DUENAS
Chairperson

MICHAEL T. LIMTIACO
Secretary

SECRETARY'S CERTIFICATE

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

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

AYES:

NAYS:

ABSTENTIONS:

ABSENT:

///

///

///



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

Issues for Decision

Resolution No. 12- FY2019

Relative to the Approval of Change Orders to the Contract for Design Services for the Upgrade to the Northern District Wastewater Treatment Plant to Secondary Treatment, GWA Project No. S17-003-OEA (OEA Grant OCON 676-16-02)

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

GWA management has requested additional survey and design services under Amendment 4 to the Contract for Design Services for the Upgrade to the Northern District Wastewater Treatment Plant to Secondary Treatment. The additional work is for the design of a new waterline between the Route 3 and NDWWTP to convey potable water to meet the increased demands of both the existing plant and the new treatment processes required for the upgrade to secondary treatment. The design of the waterline is necessary, as the existing potable water supply for NDWWTP is not adequate to meet the demands of the new treatment processes. The design and construction of the waterline must be completed prior to December 31, 2021 to ensure that the NDWWTP upgrade is fully functional.

GWA management has also requested additional design services under Amendment 5 to the Contract for Design Services to prepare design plans and specifications for alternative, deductive bid items for the NDWWTP Bid Documents. If construction bids are greater than available Office of Economic Adjustment grant funds, the deductive bid method will be implemented in order to contain the construction bids within the available funding limits. The design work for the deductive bids must be completed prior to mid-March 2019.

Where is the location?

Northern District Wastewater Treatment Plant

How much will it cost?

Amendment 4: \$59,757.33

Amendment 5: \$62,921.06

Total Cost: \$122,678.39

GWA Management is seeking approval of an additional \$300,000.00, inclusive of the \$122,678.39 for amendments 4 and 5, and the balance for any change orders that may arise during the remainder of the project.

When will it be completed?

The Design Services will be completed before December 31, 2021.

What is the funding source?

Office of Economic Adjustment General Assistance Grant OCON 676-16-02

The RFP/BID responses (if applicable):

RFP/Bid responses are 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. 12-FY2019

**RELATIVE TO THE APPROVAL OF CHANGE ORDERS TO THE CONTRACT FOR
DESIGN SERVICES FOR THE UPGRADE TO THE NORTHERN DISTRICT
WASTEWATER TREATMENT PLANT TO SECONDARY TREATMENT, GWA
PROJECT NO. S17-003-OEA (OEA GRANT OCON 676-16-02)**

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 U.S. Department of Defense, Office of Economic Adjustment awarded to GWA a General Assistance Grant, No. OCON 676-16-02, for community investment on August 26, 2016 for Twenty-One Million Dollars (\$21,000,000); and

WHEREAS, the General Assistance Grant is to be used for water and wastewater improvements in support of the relocation of U.S. Marines and their dependents to Guam; and

WHEREAS, the report “Final Guam Water and Wastewater Assessment Report in Support of the Economic Adjustment Committee Implementation Plan,” (NAVFAC, Department of the Navy, February 2015) has recommended the design and construction of Northern District Wastewater Treatment Plant (“NDWWTP”) treatment upgrades to comply with the current National Pollutant Discharge Elimination System permit and mitigate impacts from wastewater utilities to nearshore waters, and marine biological resources; and

1 **WHEREAS**, the original Contract for Design Services for the Upgrade to the NDWWTP
 2 plus contingency was approved by the CCU on July 25, 2017 under Resolution No. 47-FY2017
 3 for a total Fee not to exceed Nine Million Dollars (\$9,000,000.00); and

4
 5 **WHEREAS**, GWA management executed the Contract for Design Services with Duenas,
 6 Camacho & Associates in the amount of Eight Million Six Hundred Forty Thousand Seventy-
 7 Eight Dollars and Six Cents (\$8,640,078.06) on August 4, 2017; and

8
 9 **WHEREAS**, GWA management approved Amendment 1 to the Contract for Design
 10 Services for a no cost change to the Scope of Work on August 4, 2017; and

11
 12 **WHEREAS**, GWA management approved Amendment 2 to the Contract for Design
 13 Services for a change to the Scope of Work and Fee in the amount of Eight Thousand Three
 14 Hundred Thirty-Six Dollars (\$8,336.00) on July 21, 2018 for additional required services for an
 15 archaeological survey and report to support the Federal National Environmental Policy Act's
 16 Environmental Assessment process; and

17
 18 **WHEREAS**, GWA management approved Amendment 3 to the Contract for Design
 19 Services for Part 1 of a change to the Scope of Work and Fee for the preparation of design plans
 20 and specifications for deductive bid items for the NDWWTP Bid Documents in the amount of
 21 Three Hundred Fifty-One Thousand Five Hundred Eighty-Five Dollars and Ninety-Four Cents
 22 (\$351,585.94) on December 26, 2018, thus bringing the total amount of the Contract for Design
 23 Services to Nine Million Dollars (\$9,000,000.00), the maximum fee approved by the CCU on
 24 July 25, 2017; and

25
 26 **WHEREAS**, GWA management has requested additional survey and design services
 27 from the Design Engineer under Amendment 4 to the Contract for Design Services for the design
 28 of a new waterline between Route 3 and NDWWTP to convey potable water to meet the
 29 increased demands for the new treatment processes required for the upgrade to secondary
 30 treatment. The new waterline is planned to connect to an existing 16-inch waterline at a utility
 31 vault located at the terminal end of an existing easement from Route 3 serving the adjacent
 32 private property; and

1 **WHEREAS**, GWA's Project Management/Construction Management (PM/CM) team
2 has negotiated the Scope of Work and Fee, as described briefly above and in Exhibit A - the
3 Engineers Joint Contract Documents Committee Exhibit K for Amendment 4 to Owner-Engineer
4 Agreement, with the Design Engineer for Amendment 4 to the Contract for Design Services in
5 the amount of Fifty-Nine Thousand Seven Hundred Fifty-Seven Dollars and Thirty-Three Cents
6 (\$59,757.33); and

7
8 **WHEREAS**, GWA management has requested additional design services from the
9 Design Engineer under Amendment 5 to the Contract for Design Services for Part 2 of the
10 preparation of design plans and specifications for deductive bid items for the NDWWTP Bid
11 Documents. The deductive bid items will ensure that GWA will receive construction bids that
12 are within the available OEA Grant funding and provide the flexibility to ensure that the final
13 construction contract can be awarded without delay; and

14
15 **WHEREAS**, GWA's PM/CM team has negotiated the Scope of Work and Fee, as
16 described briefly above and in Exhibit B - the Engineers Joint Contract Documents Committee
17 Exhibit K for Amendment 5 to Owner-Engineer Agreement, with the Design Engineer for
18 Amendment 5 to the Contract for Design Services in the amount of Sixty-Two Thousand Nine
19 Hundred Twenty-One Dollars and Six Cents (\$62,921.06); and

20
21 **WHEREAS**, GWA management seeks CCU approval of the proposed additional costs
22 for design associated with Amendments 4 and 5, as described above and in Exhibits A and B, for
23 the total amount of One Hundred Twenty-Two Thousand Six Hundred Seventy-Eight Dollars
24 and Thirty-Nine Cents (\$122,678.39); and

25
26 **WHEREAS**, GWA management further seeks the CCU's authorization to allow GWA to
27 increase the total amount of the Contract for Design Services up to a maximum of Nine Million
28 Three Hundred Thousand Dollars (\$9,300,000.00) to address Amendments 4 and 5 and any
29 additional change orders that may arise during the remainder of the design phase or during
30 construction services; and
31
32

1 **WHEREAS**, the source of funding for Amendments 4 and 5 to the Contract for Design
2 Services will be from the OEA General Assistance Grant OCON 676-16-02; and
3

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

- 6 1. The recitals set forth above hereby constitute the findings of the CCU.
- 7 2. The CCU finds that the terms of the Scope of Work and Fee proposals
8 submitted by Duenas, Camacho & Associates for Amendments 4 and 5, as
9 described in Exhibits A and B, are fair and reasonable.
- 10 3. The CCU hereby authorizes the management of GWA to execute
11 Amendments 4 and 5 for the total amount of One Hundred Twenty-Two
12 Thousand Six Hundred Seventy-Eight Dollars and Thirty-Nine Cents
13 (\$122,678.39).
- 14 4. The CCU hereby further approves the funding amount for this Contract of
15 Nine Million Dollars (\$9,000,000.00), plus Three Hundred Thousand Dollars
16 (\$300,000.00) to address Amendments 4 and 5 and any additional change
17 orders that may arise during the remainder of the design phase or during
18 construction services, to bring the total authorized funding amount to a
19 maximum of Nine Million Three Hundred Thousand Dollars (\$9,300,00.00).

20 **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption
21 of this Resolution.
22

23 **DULY AND REGULARLY ADOPTED**, this 22nd day of January 2019.
24

25 Certified by:

Attested by:

26
27
28 _____
29 **JOSEPH T. DUENAS**
30 Chairperson

MICHAEL T. LIMTIACO
Secretary

31 //

32 //

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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Exhibit A

This is **EXHIBIT K**, consisting of [16] pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated August 4, 2017.

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 04

The Effective Date of this Amendment is: January 9, 2019.

Background Data

Effective Date of Owner-Engineer Agreement: August 4, 2017

Owner: Guam Waterworks Authority

Engineer: Duenas, Camacho & Associates, Inc.

Project: Upgrade of the Northern District Wastewater Treatment Plant (NDWWTP) to Secondary Treatment;
GWA Project No. S17-003-OEA

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

- ☒ Additional Services to be performed by Engineer
- ☐ Modifications to services of Engineer
- ☐ Modifications to responsibilities of Owner
- ☐ Modifications of payment to Engineer
- ☐ Modifications to time(s) for rendering services
- ☐ Modifications to other terms and conditions of the Agreement

Description of Modifications:

This amendment to the Owner-Engineer Agreement is Amendment 4/Change Order 3 in the amount of \$59,757.33 for the design of a new waterline to provide potable water to the Northern District Wastewater Treatment Plant (NDWWTP).

The purpose of this scope of work (SOW) is to provide for the design of a new water line between the proposed iLearn Academy and the NDWWTP to adequately convey potable water to both the existing and the new portion of the NDWWTP. The proposed route for this new waterline is shown schematically in Exhibits A and B. Generally, the new waterline will connect

to an existing 16-inch waterline at a utility vault located to the east of the proposed iLearn Academy Facility and traverse west towards an access road (Beach Road) as shown on Exhibit A. This route will enable the new waterline to be located within the proposed 100-foot-wide Right of Way (ROW) north of the planned iLearn Academy Facility and an existing easement (see Appendix B). The connection of the line feeding the NDWWTP (under the current contract) to this line is at the west end of the iLearn ROW as shown. It is assumed that the line feeding the NDWWTP from this connection point will be 16 inches as well so that it can be used for development to the south. This SOW does not include obtaining this ROW. Initial network modeling suggests that this line will provide for the anticipated fire demand for the NDWWTP facilities.

The work performed under this SOW shall consist of design services necessary for the preparation of plans, specification, and estimates, including, but not limited to, engineering reports, design calculations, construction documents, design drawings in both PDF and AutoCAD formats, technical specifications, cost estimates, application for permits, construction bid support service, and responses to requests for interpretation/information during bidding and construction. It is anticipated that construction of this waterline will be openly procured through bidding.

All deliverables associate with this change order shall be routed through GWA's Program Manager for the GWA Water and Wastewater Infrastructure Improvements Program.

Scope of Services

1. Site Surveys

Property and Topographic Surveys: Site surveys are required to ensure that the proposed waterline alignment falls within the proposed ROW and existing government easements. Additionally, the Consultant shall perform a topographic survey and superimpose the topographic map onto the drawings of the proposed waterline alignment for use in the design of the waterline improvements. The Consultant shall develop a sketch that shows the metes and bounds for the proposed easement and ROW, property boundaries and adjacent property owners.

Subsurface Utility Survey: The Consultant shall conduct a review of all available as-built data for existing underground utilities along the proposed alignment to locate and identify any subsurface utility. Based on GIS information, GWA's Interceptor Sewer is shown to cross the proposed 100-foot-wide ROW. This interceptor sewer shall be identified and located for use in the design of the new waterline.

Environmental Surveys: Any environmental and/or cultural resources surveys that may be needed for the construction of this waterline will be conducted under a subsequent construction contract. However, this SOW does include initial coordination with SHPO and FWS.

2. Design

The Consultant shall design waterline improvements within government ROWs and easements in the following stages and in conformance with GWA water system design criteria and standards:

Design Development (50% design): The Consultant shall develop the design of the project to 50% completion. The following tasks are included:

- a) Preliminary Basis of Design.
- b) Site topographic surveys and mapping for the proposed alignment.
- c) Prepare 50% complete drawings showing waterline alignment and points of connection, specifications, and contract documents using EJCDC format.
- d) Outline specifications and budget construction cost estimate.
- e) Prepare preliminary engineering design calculations.
- f) Prepare a preliminary construction schedule.
- g) Prepare a pre-final Basis of Design and design calculations.

Pre-Final and Final (90%/100%) Design: The Consultant shall develop the design of the project to pre-final and Final completion. The following tasks are included:

- a) Prepare pre-final and Final complete drawings, details, specifications, contract documents, and cost estimate.
- b) Incorporate GWA and the PMO's comments resulting from the review of the 50% and Pre-final design submittals.
- c) Prepare a construction schedule.

d) Prepare a final Basis of Design and design calculations.

3. Easement Documentation

As mentioned in Property and Topographic Surveys above, the Design Consultant shall develop a map that shows the metes and bounds for the proposed easement. The Design Consultant shall develop the necessary easement documentation for execution by the existing land owner and recording with the Guam Department of Land Management (DLM).

4. Permitting

The Design Consultant shall provide and complete all the necessary applications for building permit and conduct consultations as necessary with Department of Public Works, Department of Agriculture, GEPA, and SHPO. The Construction Contractor will obtain the final permits.

5. Project Coordination

The Design Consultant shall ensure that, during the design of this new waterline, appropriate coordination is made with all involved parties, including, but not limited to, DPW, iLearn Academy, DLM, GEPA, private neighbors, etc. as necessary to complete the design.

Project Design Deliverables and Submittal Standards: The Consultant shall provide the following deliverables. All submittals shall be provided in the number of copies indicated.

Deliverable	Copies	Schedule
1. Site Surveys	5	Within 6 weeks after NTP
2. Easement Documents	5	Within 7 weeks after NTP
3. 50% Design	5	Within 11 weeks after NTP
4. 90% Design	5	Within 15 weeks after NTP
5. Final	5	Within 18 weeks after NTP
6. Bid Opening	N/a	Within 23 weeks after NTP
7. Construction Award	N/a	Within 30 weeks after NTP

Agreement Summary:

Description	Lump Sum	T&M	Total
Original agreement amount:	\$7,022,048.31	\$1,618,029.75	\$8,640,078.06
Net change for prior amendments:	\$359,921.94	\$0.00	\$359,921.94
This amendment amount:	\$59,757.33	\$0.00	\$59,757.33
Adjusted Agreement amount:	\$7,441,727.58	\$1,618,029.75	\$9,059,757.33

Change in time for services (days or date, as applicable): 0

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect.

OWNER:

Guam Waterworks Authority

By: _____

Print

name: Miguel C. Bordallo, P.E.

Title: General Manager

Date Signed: _____

ENGINEER:

Duenas, Camacho & Associates, Inc.

By: 

Print

name: Kenneth M. Rekdahl

Title: Vice-President

Date Signed: 1/10/19

Exhibit K – Amendment to Owner-Engineer Agreement.

EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.

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Page 5



Website: www.dcaguam.com
Email: dca@dcaguam.com

January 4, 2019

Miguel C. Bordallo, P.E.
General Manager, Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam, 96913

Attn: Jerald Johnson, Brown & Caldwell Program/Construction Lead

Subject: **GWA RFP-08-ENG, Upgrade of the Northern District Wastewater Treatment Plant (NDWWTP), GWA Project No. S17-003OEA (OEA Grant OCON676-16-02)**

Ref: **Design Services for the Upgrade of Northern District WWTP iLearn Waterline Supply, Revision 1**

Hafa Adai Mr. Johnson,

At the request of the PM/CM, Duenas, Camacho and Associates (DCA) is submitting this change order proposal for the referenced services. The requested services are intended to provide the construction plans needed to supply domestic and fire flow water to the new subject WWTP. The design services are provided in accordance with B&C's letter dated October 2, 2018 and it's revision. The following assumptions and recommendation is made part of the scope of services provided in your letter.

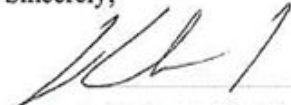
1. DCA assumes that GWA/PMCM will provide all coordination and documentation needed to secure the easement for the new water within the iLearn property. This includes right of entry.
2. DCA will provide the map and documentation needed to submit the easement request to the Department of Land Management.
3. DCA will provide the cost estimating and schedule services requested.
4. No environmental related survey or inspections are provided as part of this change order.

The fee for this change order proposal is:

Project Admin/Specs/Schedule/ Estimate/Permit/ENV	\$17,165.22
Waterline Design	\$42,592.11
Total	\$59,757.33

January 4, 2019

Sincerely,



Kenneth M. Rekdahl, P.E.
Vice-President
Dueñas, Camacho & Associates, Inc.

Cc: Jerald Johnson / Cheryl Dilks Brown & Caldwell

Att:

Fee Breakdown
Alternate Alignment location

100

414 W. Soledad Avenue, Suite 602
Hagåtña, GU 96910

T: 671.300.4220



October 2, 2018

Kenneth M. Rekdahl, P.E.
Dueñas, Camacho, and Associates
238 E. Marine Corps Drive, Suite 201
Hagåtña, Guam 96910

150343

Subject: CCR-03-R1 Revisions to Request for Pricing – Design,
iLearn Waterline Supply to NDWWTP

Håfa Adai Mr. Rekdahl,

On Behalf of the Guam Waterworks Authority (GWA), Brown and Caldwell (BC), serving as Project Manager (PM), is requesting a price proposal from Dueñas, Camacho, and Associates (DCA) for additional design services under GWA Project Number S17-003-OEA – Upgrade of the Northern District Wastewater Treatment Plant (NDWWTP).

The additional design services will include the design of a new 16" waterline, within the proposed Right of Way for the iLearn Academy, to provide water supply to the NDWWTP. The scope of work has been revised based on comments by DCA for this additional design service with revisions provided in Attachment 1.

Please submit your price proposal for this additional design service to the PM by Oct. 11, 2018. If you have any questions or comments regarding this request, please do not hesitate contacting me at (671) 300-4232 or by johnson2@brwnncald.com.

Respectfully,

Brown and Caldwell

A handwritten signature in blue ink, appearing to read "Jerry Johnson".

Jerry Johnson
Program/Construction Lead

cc: William Gilman, BC
Cheryl Dilks, BC

**REQUEST for PRICING – R2 GUAM WATERWORKS AUTHORITY
DESIGN SERVICES FOR THE UPGRADE OF NORTHERN DISTRICT WWTP
I LEARN WATERLINE SUPPLY
GWA PROJECT S17-003-OEA, Change Order No. 3**

1 Introduction

The purpose of this scope of work (SOW) is to provide for the design of a new water line between the proposed iLearn Academy and the Northern District Wastewater Treatment Plant (NDWWTP) to adequately convey potable water to both the existing and the new portion of the NDWWTP. The proposed route for this new waterline is shown schematically in Exhibits A and B. Generally, the new waterline will connect to an existing 16-inch waterline at a utility vault located to the east of the proposed iLearn Academy Facility and traverse west towards an access road (Beach Road) as shown on Exhibit A. This route will enable the new waterline to be located within the proposed 100-foot-wide Right of Way (ROW) north of the planned iLearn Academy Facility and an existing easement (see Appendix B). The connection of the line feeding the NDWWTP (under the current contract) to this line is at the west end of the iLearn ROW as shown. It is assumed that the line feeding the NDWWTP from this connection point will be 16 inches as well so that it can be used for development to the south. This SOW does not include obtaining this ROW. Initial network modeling suggests that this line will provide for the anticipated fire demand for the NDWWTP facilities.

The work performed under this SOW shall consist of design services necessary for the preparation of plans, specification, and estimates, including, but not limited to, engineering reports, design calculations, construction documents, design drawings in both PDF and AutoCAD formats, technical specifications, cost estimates, application for permits, construction bid support service, and responses to requests for interpretation/information during bidding and construction. It is anticipated that construction of this waterline will be openly procured through bidding.

All deliverables associate with this change order shall be routed through GWA's Program Manager for the GWA Water and Wastewater Infrastructure Improvements Program.

2 Scope of Services

2.1 Site Surveys

1. **Property and Topographic Surveys:** Site surveys are required to ensure that the proposed waterline alignment falls within the proposed ROW and existing government easements. Additionally, the Consultant shall perform a topographic survey and superimpose the topographic map onto the drawings of the proposed waterline alignment for use in the design of the waterline improvements. The Consultant shall develop a sketch that shows the metes and bounds for the proposed easement and ROW, property boundaries and adjacent property owners.
2. **Subsurface Utility Survey:** The Consultant shall conduct a review of all available as-built data for existing underground utilities along the proposed alignment to locate and identify any subsurface utility. Based on GIS information, GWA's Interceptor Sewer is shown to cross the proposed 100-foot-wide ROW. This interceptor sewer shall be identified and located for use in the design of the new waterline.
3. **Environmental Surveys:** Any environmental and/or cultural resources surveys that may be needed for the construction of this waterline will be conducted under a subsequent construction contract. However, this SOW does include initial coordination with SHPO and FWS.

2.2 Design

The Consultant shall design waterline improvements within government ROWs and easements in the following stages and in conformance with GWA water system design criteria and standards:

1. **Design Development (50% design):** The Consultant shall develop the design of the project to 50% completion. The following tasks are included:
 - a) Preliminary Basis of Design.
 - b) Site topographic surveys and mapping for the proposed alignment.
 - c) Prepare 50% complete drawings showing waterline alignment and points of connection, specifications, and contract documents using EJCDC format.
 - d) Outline specifications and budget construction cost estimate.
 - e) Prepare preliminary engineering design calculations.
 - f) Prepare a preliminary construction schedule.
 - g) Prepare a pre-final Basis of Design and design calculations.
2. **Pre-Final and Final (90%/100%) Design:** The Consultant shall develop the design of the project to pre-final and Final completion. The following tasks are included:
 - a) Prepare pre-final and Final complete drawings, details, specifications, contract documents, and cost estimate.
 - b) Incorporate GWA and the PMO's comments resulting from the review of the 50% and Pre-final design submittals.
 - c) Prepare a construction schedule.
 - d) Prepare a final Basis of Design and design calculations.

2.3 Easement Documentation

1. As mentioned in Section 2.1.1 above, the Design Consultant shall develop a map that shows the metes and bounds for the proposed easement. The Design Consultant shall develop the necessary easement documentation for execution by the existing land owner and recording with the Guam Department of Land Management (DLM).

2.4 Permitting

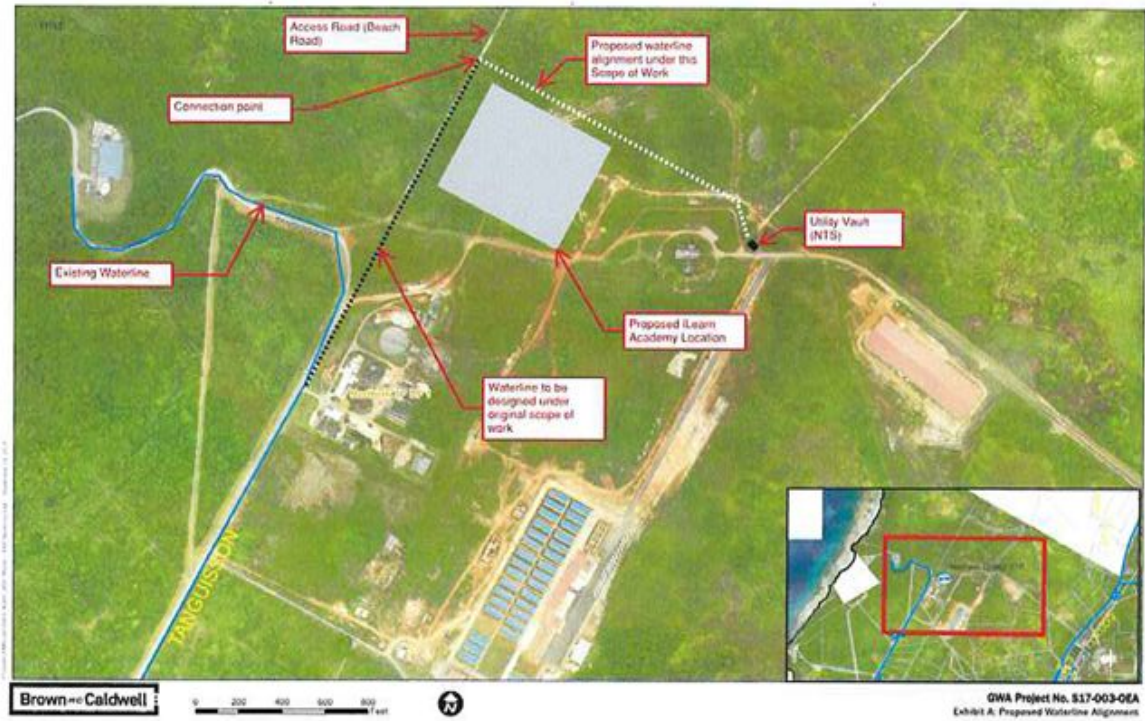
1. The Design Consultant shall provide and complete all the necessary applications for building permit and conduct consultations as necessary with Department of Public Works, Department of Agriculture, GEPA, and SHPO. The Construction Contractor will obtain the final permits.

2.5 Project Coordination

1. The Design Consultant shall ensure that, during the design of this new waterline, appropriate coordination is made with all involved parties, including, but not limited to, DPW, iLearn Academy, DLM, GEPA, private neighbors, etc. as necessary to complete the design.
2. Project Design Deliverables and Submittal Standards: The Consultant shall provide the following deliverables. All submittals shall be provided in the number of copies indicated.

Deliverable	Copies	Schedule
1. Site Surveys	5	Within 6 weeks after NTP
2. Easement Documents	5	Within 7 weeks after NTP
3. 50% Design	5	Within 11 weeks after NTP
4. 90% Design	5	Within 15 weeks after NTP
5. Final	5	Within 18 weeks after NTP
6. Bid Opening	N/a	Within 23 weeks after NTP
7. Construction Award	N/a	Within 30 weeks after NTP

EXHIBIT A – PROPOSED WATERLINE ALIGNMENT



**EXHIBIT B – PROPOSED WATERLINE ALIGNMENT WITH ILEARN ACADEMY
OVERLAY**



Exhibit B

This is **EXHIBIT K**, consisting of [21] pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated August 4, 2017.

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 05

The Effective Date of this Amendment is: January 8, 2019.

Background Data

Effective Date of Owner-Engineer Agreement: August 4, 2017

Owner: Guam Waterworks Authority

Engineer: Duenas, Camacho & Associates, Inc.

Project: Upgrade of the Northern District Wastewater Treatment Plant (NDWWTP) to Secondary Treatment;
GWA Project No. S17-003-OEA

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

- ☒ Additional Services to be performed by Engineer
- ☐ Modifications to services of Engineer
- ☐ Modifications to responsibilities of Owner
- ☐ Modifications of payment to Engineer
- ☐ Modifications to time(s) for rendering services
- ☐ Modifications to other terms and conditions of the Agreement

Description of Modifications:

Part 1 of the Alternate Bid Change Order was processed as Change Order 2/Amendment 3 for \$351,585.94. This is Part 2 of the Alternate Bid Change Order request for \$62,921.06, to be processed as Change Order 4/Amendment 5. The total amount for amendments 3 and 5 is \$414,507.00

The change to the scope of work is described below.

Prepare deductive bid items as an option for alternative bid pricing by the potential bidders to:

- a) maximize the available grant funds should bid costs be lower than available funding; and

- b) provide an opportunity to contain bid costs to within the available grant funds should bid costs be greater than available funding.

These deductive bid items will be reflected on the bid form as separate alternative bids.

- Base Bid – includes full construction of the NDWWTP design inclusive of all alternatives
- Alternate Bid A = Base Bid, less Process 17, New Administrative Building
- Alternate Bid B = Base Bid, less Alternate Bid A, less Process 11 & 12, ATAD
- Alternate Bid C = Base Bid, less Alternate Bid A, less Alternate Bid B, less Process 7, Septage Receiving

Design work to consist of:

- Process 7 Septage Receiving— Since the current Septage Receiving Station is too shallow to take sewage from the new Administrative Building and/or the Repurposed Lab, a new pump station will be provided as the Base Bid to take these flows as well as receive flows from the hauler and pump this sewer/septage to the Route 3 Pump Station. The Base Bid will also include providing a new concrete system receiving pad, adjacent to the new pump station location, both to be located on the opposite side of the circular access road from the existing pump station. The new system receiving pad will be covered with a concrete canopy and will include one “BEAST” unit with room for a future spare. A new force main will be designed to take septage from the new Pump Station to the Route 3 Pump Station. The deductive alternate will be to use the existing Septage Receiving as is, but with significant refurbishment recommended to the current maintenance staff.
- Process 17 New Administrative Building—The Base Bid will include design of a new administrative building, structural, architectural, electrical, civil, mechanical and plumbing with no improvements to the existing administration/lab facility. As an alternate bid, delete the new Administration Building and provide a repurposed lab within a refurbished existing administration building including structural, architectural, electrical, civil, mechanical and plumbing as a separate bid package provided with the bid set. This will include revisions to site layout, grading and access improvements, fiber optic rings, and plantwide communications designed so the facilities are functional with or without the bid additives.
- Process 11 & 12 ATAD—The Base Bid will include full design of the ATAD system. As an alternate bid, delete the ATAD system and design a fully functional treatment system for undigested sludge from the aerated sludge holding tank to the centrifuge dewatering system. Design must consider components associated with both the ATAD system and undigested sludge system; i.e., plant water, side-stream pumping, thickening facility, existing digester control building, new digester equipment building, new digester odor control system, and dewatering facility. The Process equipment, piping, pumping, communications, plant controls, dewatering, and support systems will be designed to accommodate either ATAD or undigested sludge treatment options. This will require additional specifications and independent drawings for the existing digesters, digester control building and electrical buildings. Drawings will involve civil, structural, electrical, mechanical, plumbing, and architectural disciplines. Provide the undigested sludge package of Process 11 & 12 in the construction documents as a separate bid package Provided with the bid set.

Agreement Summary:

Description	Lump Sum	T&M	Total
Original agreement amount:	\$7,022,048.31	\$1,618,029.75	\$8,640,078.06
Net change for prior amendments:	\$419,679.27	\$0.00	\$419,679.27
This amendment amount:	\$62,921.06	\$0.00	\$62,921.06
Adjusted Agreement amount:	\$7,504,648.64	\$1,618,029.75	\$9,122,678.39

Change in time for services (days or date, as applicable): 0

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect.

OWNER:

Guam Waterworks Authority

By:

Print

name: Miguel C. Bordallo, P.E.

Title: General Manager

Date Signed:

ENGINEER:

Duenas, Camacho & Associates, Inc.

By:

Print

name: Kenneth M. Rekolah!

Title: Vice-President

Date Signed:

1/10/19

Exhibit K – Amendment to Owner-Engineer Agreement.

EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.

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Page 3

Jerald Johnson

From: Ken Rekdahl <kmrekdahl@dcaguam.com>
Sent: Monday, November 19, 2018 8:45 AM
To: Jerald Johnson
Subject: Fwd: NDWWTP Spetage Station Process 7

Resending

Ken

Begin forwarded message:

From: Ken Rekdahl <kmrekdahl@dcaguam.com>
Subject: NDWWTP Spetage Station Process 7
Date: November 16, 2018 at 5:38:39 PM GMT+10
To: Jerald Johnson <jjohnson2@BrwnCald.com>
Cc: "Stewart, Ken" <ken.stewart@greshamsmith.com>

Jerry,

Below us the requested process 7 CO language.

Regards

Ken

The existing Septage Receiving Station (hauler, pump station, and interconnecting piping including force main to the Route 3 Pump Station) will be replaced as part of the project. However, this work will be listed as a deductive alternate on the bid form. If the new station isn't constructed, then the existing station will continued to be used as-is but significant refurbishment is recommended to the maintenance staff.

We will investigate the reuse the existing concrete wet well for storage and install covers for odor control if the structure can be used. The new Septage Receiving Station will be located on the opposite side of the circular access road from the existing Septage Receiving Station. This will allow use of the circular access road for access to the new Septage Receiving Station. The new Septage Receiving Station will consists of one "BEAST" unit with room for a future spare. The new and future units will be located on top of a a new concrete pad and covered with a concrete canopy.

A new pump station will be constructed adjacent to the Septage Receiving Station along with a new force main to the Route 3 pump station. This new site pump station will receive flow from the new Septage Receiving Station and waste streams from the new admin building and repurposed lab. This new site pump station and new force main to the Route 3 pump station will not be included in the deductive alternate.

Kenneth M. Rekdahl, PE
Chief of Special Projects
Duenas, Camacho & Associates, Inc.
671-477-7991

Kenneth M. Rekdahl, PE
Chief of Special Projects
Duenas, Camacho & Associates, Inc.
671-477-7991



Website: www.dcaguam.com
Email: dca@dcaguam.com

November 2, 2018

Miguel C. Bordallo, P.E.
General Manager, Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam, 96913

Attn: William Gilman, P.E., Brown & Caldwell Program Manager

Subject: **GWA RFP-08-ENG, Upgrade of the Northern District Wastewater Treatment Plant (NDWWTP), GWA Project No. S17-003OEA (OEA Grant OCON676-16-02)**

Ref: **Alternate Bid Change Order Proposal, Revision 1**

Hafa Adai,

Duenas, Camacho and Associates (DCA) is in receipt of Brown and Caldwell's Alternate Bid Change Order Proposal Dated September 17, 2018. In this response reference is made to the following Section 2.5 of the design scope of work.

As part of the Draft Design Development Report, the Engineer and GWA shall develop a maximum construction bid target price for the Engineer to use as the basis for the design. The actual construction bid price for the facility construction projects(s) must fall within this amount or the Engineer is required to modify the design, with no additional compensation, until the construction cost is both within the budgeted cost and the project achieves the NPDES permit requirements without unreasonable O&M requirements. The Engineer shall provide a base design required to meet objectives, as well as additional additive bid items for consideration.

In good faith and to keep the project and program on track our team moved forward in the design of the layout agreed on during the 30% design review meeting. It was at this meeting where the project 30% estimate was discussed. Up to and after this point the project construction budget has been fluctuating.

- The May17th Facility Plan indicates a capital cost of \$122 Million (table 10-3) and \$116 M (appendix A)
- Response from the August 30th Kickoff meeting "About \$100M" with Grant amount at \$116M
- Weekly project meeting feedback from B&C indicates available construction funds of \$105M.
- Our team's 30% estimate \$128M (with ATAD), part of draft DDR.

To date our team has taken the approach to do what we can to keep the cost down. The \$105M available funds (not Bid) has been our target. Our recommended additive bid items were based on this target. What is offered in our September 4th letter were additive bid items. This was provided to give GWA the best means available to construct a new WWTP that will meet or exceed the requirements and purpose of the DOD Grant. The proposed plant will be an operator and maintenance friendly, expandable plant capable of meeting the current NPDES permit requirements and is easily upgraded to meet potential future NPDES requirements for nutrient removal. The September 17th B&C response seems to penalize

November 2, 2018

our team for providing these option(s). Using the response stated in the September 17th B&C, we could provide endless additives at our expense. If this were the case we would have no incentive to provide any additives to GWA if we were penalized at every proposed option. Rather than take this approach we offer the following:

Process 7, Septage Receiving

The 90% Design will be revised to include the replacement of the existing Septage Receiving Station (hauler, pump station, and interconnecting piping including force main to the Route 3 Pump Station). We will try to reuse the existing concrete wet well and install covers for odor control if the structure can be used. Compensation for design of a replacement Septage Receiving Station is requested for:

- As-built the existing Septage Receiving Station
- Develop process background and plans
- Develop Mechanical Process, Plumbing, Electrical, Instrumentation & Controls, and Civil plans

Consideration has been given to the effort not used to take the current Septage Receiving design from 60% to final. In anticipation of this revision our team stopped short of the taking the new Septage Receiving Station to 60% in an effort to minimize the additive cost. However, the Mechanical Process drawings are near 90% with architectural, structural, and I&C lagging behind.

Process 17, New Administration Building

We agree that Process 17 is part of the project scope. However in order to provide process 17 as an additive bid item and reduce to possibility of claims during construction the following item is needed and compensation is requested to:

- Provide updated Civil plans to cover both site layouts with and without process 17.

Process 11 and 12

The fee provided in our team's September 4th letter covers the effort needed to include the raw undigested sludge option. No revision with the Process 11 and 12 fee will be made.

The proposed meeting attendees have been revised. Our revised fee for this change order effort is \$414,507. We look forward to closing our this request please Email or call if there are any specific questions or comments.

Sincerely,



Kenneth M. Rekdahl, P.E.
Vice-President, Dueñas, Camacho & Associates, Inc.

Att: Revised Fee breakdown

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Website: www.dcaguam.com
Email: dca@dcaguam.com

November 13, 2018

Miguel C. Bordallo, P.E.
General Manager, Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam, 96913

Attn: Jerald Johnson, Brown & Caldwell

Subject: **GWA RFP-08-ENG, Upgrade of the Northern District Wastewater Treatment Plant (NDWWTP), GWA Project No. S17-003OEA (OEA Grant OCON676-16-02)**

Ref: **Alternate Bid Change Order Proposal, Revision 1. Table**

Hafa Adai,

To support DCA's revised change order proposal for the subject project, the following table is provided:

Firm	09/04/18 Fee	11/2/18 Fee	Delta (Reduction)
DCA	\$75,371.08	\$50,977.96	\$24,393.12
GSP	\$78,666.00	\$76,479.00	\$2,187.00
CH2	\$240,357.00	\$219,764.00	\$20,593.00
EMCE	\$14,582.85	\$10,972.00	\$3,610.85
TRMA	\$72,980.00	\$32,540.00	\$40,440.00
Subtotal	\$481,956.93	\$390,732.96	\$91,223.97
DCA Sub-consultant Handling (1%)	\$4,065.86	\$3,397.55	\$668.31
GRT (5.17%)	\$25,127.38	\$20,376.55	\$4,750.83
Total	\$511,150.17	\$414,507.06	\$96,643.11

The fee reduction presented in the Delta Column is a result of reducing or eliminating efforts for the septage receiving station (process 7) alternate. Fee reduction was also realized from the architectural fees for the repurposed lab (process 18) and sludge storage facility (process 9). The packaging of the alternate bid approach will no longer require multiple layout and configuration for Processes 9 and 18. Lastly coordination and travel expenses were reduced from DCA, EMCE, TRMA, CH2 and GSP.

Sincerely,

Kenneth M. Rekdahl, P.E.
Vice-President, Dueñas, Camacho & Associates, Inc.

414 W. Soledad Avenue, Suite 602
Hagåtña, GU 96910

T: 671.300.4220



September 17, 2018

Mr. Kenneth M. Rekdahl, P.E., Vice President
Dueñas, Camacho & Associates, Inc.
238 Marine Corps Drive, Suite 201
Hagåtña, GU 96910

150343-110

Subject: Upgrade of the Northern District Wastewater Treatment Plant, GWA Project No.
S17-003-OEA
Alternate Bid Change Order Proposal

Dear Ken:

Brown and Caldwell (BC) received your Alternate Bid Change Order Proposal letter dated September 4, 2018. After review and evaluation, we offer the following opinions.

1) Process 7, Septage Receiving

BC recommends that the Base Bid shall include refurbishment of the existing septage receiving station. It is our opinion that renovating the existing chemical building for a new septage receiving station is unnecessary and costly due to considerable site work. Therefore, we recommend that the Base Bid include the existing septage receiving facility and equipment rather than a new septage receiving station, thus eliminating the need for design services for an alternative design and bid for septage receiving. [Reference: Scope of Work, Article 2.1, bullet 2.1 and Article 2.5.3.1, bullet 3.n]

2) Process 17, New Administrative Building

BC concurs that the Base Bid shall include a new Administrative Building. Should the Base Bid exceed GWA's budget, the new Administrative Building will likely be selected for deletion from the project. If this occurs, the existing administration building must be refurbished to accommodate the plant's extra personnel, larger laboratory, and control room. Based on the 30% estimate of probable constructed cost, the new Administrative Building is likely to be deleted. Therefore, providing a design for refurbishment of the existing administration facility is essential.

In accordance with the Scope of Work, Article 2.5, page 12 of Dueñas, Camacho & Associates, Inc.'s (DCA's) Contract:

"The actual construction bid price for the facility construction projects must fall within this amount [maximum construction bid target price] or the Engineer is required to modify the design, with no additional compensation, until the construction cost is both within the budgeted cost and the project achieves the NPDES permit requirements without unreasonable O&M requirements."

It is our opinion that the design of a refurbished facility is necessary in an effort to meet the maximum construction bid target price and should be provided in accordance with the Scope of Work at no additional compensation. The Base Bid shall

Kenneth M. Rekdahl, P.E.
Dueñas, Camacho & Associates, Inc.
September 12, 2018
Page 2

therefore include a deductive alternate deleting the new administrative building and refurbishing the existing administration building.

3) Process 11 and 12, ATAD and Sludge Handling

As a result of the process alternative analyses performed by the Designers, and because of GWA's desire to construct the ATAD process to provide multiple benefits for Guam, BC concurs that the Autothermal Thermophilic Aerobic Digestion (ATAD) shall be included in the Base Bid. However, should the Base Bid exceed GWA's budget, the ATAD system will likely be scrutinized and may be deleted from the project. If this occurs, raw undigested sludge handling must be provided, similar to the process currently being used at the plant. The raw undigested sludge handling alternative would be designed to allow construction of the ATAD system in the future. It is BC's opinion that design of the raw undigested sludge alternative to meet future needs of the ATAD system was not included in the Scope of Work, and the Designer may be entitled to additional compensation. The Base Bid shall include a deductive alternate deleting the ATAD system and substituting a raw undigested sludge handling system that would permit construction of a future ATAD system. [Reference the Scope of Work, Article 2.1, bullet 15 and Article 2.4.5]

4) Solids Design Team 60% Design Review Workshop

BC does not understand why it is necessary that four (4) staff attend in-person the 60% design review workshop at a cost exceeding \$20,000, exclusive of labor.

BC requests that DCA revisit the change order proposal and include only those costs associated with design of the raw undigested sludge handling alternative and re-evaluate the minimum necessary staff for attendance at the design workshop.

Very truly yours,

Brown and Caldwell



William P. Gilman, PE, PgMP, Program Manager
Hagåtña, Guam

cc: Miguel C. Bordallo, PE, General Manager, Guam Waterworks Authority
Jerald Johnson, Brown and Caldwell
Cheryl Dilks, Brown and Caldwell



Website: www.dcaguam.com
Email: dca@dcaguam.com

September 4, 2018

Miguel C. Bordallo, P.E.
General Manager, Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam, 96913

Attn: William Gilman, P.E., Brown & Caldwell Program Manager

Subject: **GWA RFP-08-ENG, Upgrade of the Northern District Wastewater Treatment Plant (NDWWTP), GWA Project No. S17-003OEA (OEA Grant OCON676-16-02)**

Ref: **Alternate Bid Change Order Proposal**

Hafa Adai,

Duenas, Camacho and Associates (DCA) is submitting this change order proposal for the referenced services. These services are intended to provide GWA with the option for alternative bidding. Discussion at the project 30% design meeting concluded with a GWA request to maximize the available grant funds by offering the following deductive bid items to the base bid. These deductive bid items will be reflected on the bid form as three separate alternate bids.

1. Process 7 Septage Receiving
 2. Process 17 New Administrative Building
 3. Process 11/12 ATAD
- Base Bid
 - Alternate Bid A = Base Bid + Process 7A – Process 7
 - Alternate Bid B = Alternate Bid A – Process 17
 - Alternate Bid C = Alternate Bid B – Process 11 & 12

In the event that any one of these processes is not constructed, the base bid or alternative bid will provide a complete and operational wastewater treatment facility that meets the project scope and grant requirements. This will be accomplished as follows:

1. The existing proprietary septage receiving station will be refurbished as part of the alternate bid to include receiving and discharge equipment repairs. In the event that p7 (New Septage Receiving) is not included in the bid award package, the refurbished existing septage station (Process 7A) will be included in the construction documents as a separate package provided with the bid set.

The Scope of Work will be increased to include the removal of the new Septage Receiving Station as a deductive alternate and substituted with refurbishment of the existing Septage Receiving Station. The existing Septage Receiving Station is proprietary and must be refurbished with OEM parts. The design team will review the operational issues in further detail

September 4, 2018

with GWA and the existing station manufacturer in an effort to address some of the problematic issues (potentially removing valves, adding fillets in the bottom of pump station as needed, etc.) as part of the refurbishment. A technical memorandum or other writeup outside of the DDR will be provided.

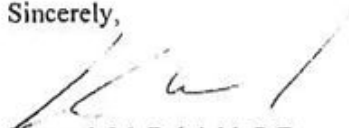
Site improvement will be provided to accommodate either Process 7 or 7A. Revision to site layout, grading and access will be needed to accommodate either septage receiving station. Background development and electrical and mechanical support will be needed to fully review and develop Process 7A

2. Process 17 (New Administrative Building) will be provided as the base bid. The existing lab and operations building will be repurposed to serve as a lab, office and control space. In the event Process 17 is not constructed the repurposed lab building will serve as the interim administration building. The alternate bids B and C will not have Process 17. The fiber optic rings and plantwide communications will be designed so that the system is functional with or without the bid additives. Site improvement will be provided to accommodate the removal of Process 17. Revision to site layout, grading and access will be needed as part of the alternate bid set
3. The engineer proposed raw option for solids handling and the ATAD (Process 11/12) will be fully designed as part of the base bid. In the event the ATAD (Process 11/12) system is not constructed the raw system will be used for solids handling. The raw system is considered the alternate bid. Components associated with both the raw system and ATAD systems (plant water, side-stream pump station, thickening facility, existing digester control building, new digester equipment building, new digester odor control system, and dewatering facility) will be designed to accommodate either the raw or ATAD bid item. The Process equipment, piping, pumping, communications, plant controls, and support system will be designed to accommodate the worst case design criteria for either ATAD or Raw sludge processing option. The existing Digesters, Digester Control Building, and ATAD Electrical Building will require independent plans for the base and alternate bids. This approach will result in a conservative design for the dewatering facility if the ATAD bid additive is constructed. This work will require additional drawing and specification work to clearly identify the base bid and alternate items for all disciplines.

The solids design team was not originally scoped to attend the 60% design review meeting "in person". Given that a large part of this alternative bid involves the solids Process engineers, we recommend that four personnel (PM, Design manager, Process Mechanical and I&C) from the solids Process team be funded to attend the 60% design review workshop.

The fee for this change order proposal is \$ 511,150.

Sincerely,



Kenneth M. Rekdahl, P.E.
Vice-President, Dueñas, Camacho & Associates, Inc.

Att: Fee breakdown

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Alternate Design	GSP	CH2	EMCE	TRMA	DCA	Sum
Septage Receiving Station	\$ 12,950	\$ -	\$ 7,734	\$ 13,360	\$ 21,350	\$ 55,394
Administration Building	\$ -	\$ -	\$ 1,004	\$ 20,400	\$ 16,632	\$ 38,035
Raw Option/ATAD						
Raw	\$ 24,633	\$ 4,678	\$ 753	\$ 13,360	\$ 21,350	\$ 64,774
Digester Complex	\$ 7,513	\$ 52,524	\$ -	\$ 16,360	\$ -	\$ 76,397
Sludge Storage Tanks	\$ -	\$ 7,653	\$ -	\$ -	\$ -	\$ 7,653
Dewatering Facility	\$ -	\$ 8,926	\$ -	\$ -	\$ -	\$ 8,926
IC	\$ -	\$ 19,812	\$ -	\$ -	\$ -	\$ 19,812
SPECS	\$ 17,166	\$ 16,377	\$ -	\$ -	\$ -	\$ 33,543
Project Management and Coordination						
COORDINATION	\$ 5,468	\$ 15,689	\$ 5,092	\$ 4,000	\$ 4,410	\$ 34,659
QC	\$ 5,468	\$ 36,063	\$ -	\$ -	\$ -	\$ 41,531
PM	\$ 5,468	\$ 27,904	\$ -	\$ 5,500	\$ 11,629	\$ 50,501
60% Meetings	\$ -	\$ 50,733	\$ -	\$ -	\$ -	\$ 50,733
Sub-Totals	\$ 78,666	\$ 240,357	\$ 14,583	\$ 72,980	\$ 75,371	\$ 481,957

DCA Subconsultant Handling 1%	\$ 4,065.86
GRT (5.17%)	\$ 25,127.38
Total	\$ 511,150.17

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WORK BREAKDOWN STRUCTURE - Short Version

PROJECT NAME: Northern District Wastewater Treatment Plant
Alternates for Processes 7, 11, and 12


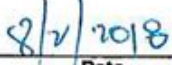
GS&P PROJECT #: 42891.00
PREPARED: 20-Aug-18
PREPARED BY: GS&P

TASK	Task Hours	Task Fee	Principal-In-Charge	Project Manager	Project Professional	M.E. Engineer	Engineer II	SR CAD Tech	Admin	Admin Assistant
Process 7 - Sewage Receiving Station										
Label Additive/Deductive Alternate Sheets and Insert Notes	12	\$2,187		4	8	8	16	12		
Design and Drawings for Refurbishment of Existing Sewage Receiving Station	66	\$10,763		4	8	8	16	24		
Specs Additions and Changes for Additive/Deductive Alternates	37	\$4,492		16	4		4		2	1
PM, Meetings, and QC	29	\$3,468	2	24	20	16	36	36	2	2
Subtotal	138	\$24,909								
Process 11 - Raw Sludge Processing										
Review of AT&Q Raw Sludge Plans for Additive/Deductive Alternate Cohesion	25	\$3,616		4	8		8			
Review and Adjust Design of Solids/Stream PS Based on Additive/Deductive Alternates	52	\$4,381		4	16		24	8		
Effluent Reuse Implications of Additive/Deductive Alternates	38	\$4,934	2	4	16		16			
PM, Meetings, and QC	24	\$3,981				24				
Spec Additions and Changes for Additive/Deductive Alternates	37	\$5,976		4	8		24			1
PM, Meetings, and QC	29	\$3,468	2	16	4		4		2	1
Subtotal	208	\$35,976	4	32	52	24	76	8	2	2
Process 12 - Digester Equipment Building										
Review of AT&Q Raw Sludge Plans for Additive/Deductive Alternate Cohesion	22	\$4,126	2	4	8		8			
PM, Meetings, and QC	16	\$3,397				16				
Spec Additions and Changes for Additive/Deductive Alternates	28	\$4,738		4	8		16			1
PM, Meetings, and QC	29	\$3,468	2	16	4		4		2	1
Subtotal	88	\$17,729	4	24	20	16	28	0	2	2
Total Task Hours & Engineering Fee	434	\$78,666	10	80	92	88	140	44	6	6
Total Project Fee		\$78,666								
Project Allocation		100%	2%	18%	21%	13%	32%	10%	1%	1%
Annual FTE's		0.23	0.01	0.05	0.05	0.03	0.08	0.00	0.00	0.00

[illegible]

EMCE INC. CONSULTING ENGINEERS								
FEE PROPOSAL WORK SHEET (GUAM)					GRT NOT INCLUDED			
Project: NDWWTP 2 Scheme Package								
EMCE # 7-248B		PREP. BY:	RB	Date: August 2, 2018				
TASK:	misc.	MANHOURS						
	expenses	Princ EE	RCDD	E. ENGR.	DRAFT.	TECHN	CLERC	
HOURLY RATES		\$182.50	\$146.00	\$126.15	\$62.40	\$100.00	\$49.80	
1 Drawings								
E-0.0.4 One Line Diagram , Site 1 (Removal)		0.5		4	8			
E-0.0.5 One Line Diagram, Site 1 New		0.5		4	8			
E-0.0.6 One Line diagram ATAD. Thickening facility and Sludge Transfer Station				2	4			
E-7.2.1 Existing Septage Receiving				0	0			
E-7.2.2 Septage receiving lighting Plan		0.5		8	16			
E-7.2.3 Septage Receiving power Plan		0.5		8	16			
E-7.4.1 Panelboard Schedule		0.5		3	6			
E11.2.1 ATAD Lighting Plan				1	2			
E11.2.2 ATAD Power Plan				1	2			
EE11.4.1 Panelboard schedule				1	2			
E17.2.1 Administarion Building lighting Plan				1	2			
E17.2.2 Administartion Building power Plan				1	2			
E17.2.3 Administartion Building Communication and fire alarm Plan				1	2			
E17.4.1 Panelboard schedule				1	2			
SUB TOTAL		\$0						
Handling 5%		\$0						
Profit 10%		\$0						
GRT 4.17%		\$0						
SUB TOTAL - MHRS.			2.5	0	36	72	0	0
TOT FOR TASK \$9,490		\$0	\$456	\$0	\$4,541	\$4,493	\$0	\$0

2 Specifications		Misc.	P. ENGR.	RCDD	E. ENGR.	DRAFT.	TECHN	CLERC
Technical Specifications								
SUB TOTAL		\$0.00						
Handling	5%	\$0						
Profit	10%	\$0						
GRT	4.17%	\$0						
SUB TOTAL - MHRS.			0	0	0	0	0	0
TOT FOR TASK	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3 Engineering Services		Misc.	P. ENGR.	RCDD	E. ENGR.	DRAFT.	TECHN	CLERC
Electrical calculation								
Field verification								
Basis of Design								
Attend Meetings			16		16			
Respond to review comments								
SUB TOTAL		\$0.00						
Handling	5%	\$0						
Profit	10%	\$0						
GRT	4.17%	\$0						
SUB-TOTAL -MHRS.			16	0	16	0	0	0
TOT FOR TASK	\$4,938	\$0	\$2,920	\$0	\$2,018	\$0	\$0	\$0

4 Reproductions				Misc.	P. ENGR.	RCDD	E. ENGR.	DRAFT.	TECHN	CLERC
Type	SHEETS	# SETS	U. CST.							
Prints - 24x36	89	1	\$1.50	\$133.50						
Prints - 11 x 17			\$0.50	\$0.00						
Specs/ Calcs/ etc			\$0.25	\$0.00						
Original Dwgs			\$10.00	\$0.00						
CD			\$5.00	\$0.00						
SUB TOTAL				\$133.50						
Handling 5%				\$7						
Profit 10%				\$14						
GRT 0.00%				\$0						
SUB TOTAL - MHRS.					0	0	0	0	0	0
TOT FOR TASK \$154				\$154	\$0	\$0	\$0	\$0	\$0	\$0
5 Post Design Services				Misc.	P. ENGR.	RCDD	E. ENGR.	DRAFT.	TECHN	CLERC
Product Data Review										
As-built Drawings (Redlines from Contractor)										
SUB TOTAL				\$0						
Handling 5%				\$0						
Profit 10%				\$0						
GRT 4.17%				\$0						
SUB TOTAL - MHRS.					0	0	0	0	0	0
TOT FOR TASK \$0				\$0	\$0	\$0	\$0	\$0	\$0	\$0
GRAND TOTAL				\$14,583						
 Abner Mariano, P.E.				 Date						

SHEET DESCRIPTION				Est. Sheet Count	Est. Hrs per Sheet	Est. Fee per Sheet
GENERAL DRAWINGS						
ARCHITECTURAL DRAWINGS - ADDITIVE (TRMA)						
PROCESS 7 - SEPTAGE RECEIVING STATION						
A	LIFE SAFETY PLAN			1	6	\$456
A	EGRESS PLAN			1	4	\$304
A	FLOOR PLAN			1	48	\$4,800
A	ROOF PLAN			1	24	\$2,400
A	BUILDING ELEVATIONS			2	30	\$3,000
A	MISCELLANEOUS DETAILS			1	12	\$2,400
					124	\$11,360
PROCESS 8A - ATAD						
A	LIFE SAFETY PLAN			1	6	\$456
A	EGRESS PLAN			1	4	\$304
A	FLOOR PLAN			1	48	\$4,800
A	ROOF PLAN			1	24	\$2,400
A	RCP			1	24	\$2,400
A	BUILDING ELEVATIONS			1	24	\$2,400
A	INTERIOR ELEVATIONS			1	24	\$2,400
A	MISCELLANEOUS DETAILS			1	12	\$1,200
					166	\$16,360
PROCESS 9 - AERATED SLUDGE STORAGE FACILITY						
A	LIFE SAFETY PLAN			1	6	\$456
A	EGRESS PLAN			1	4	\$304
A	FLOOR PLAN			1	48	\$4,800
A	ROOF PLAN			1	24	\$2,400
A	BUILDING ELEVATIONS			2	30	\$3,000
A	MISCELLANEOUS DETAIL			1	12	\$2,400
					124	\$11,360
PROCESS 10 - RENOVATED REPURPOSE LAB (REDESIGN)						
A	FLOOR PLAN			1	24	\$2,400
A	ROOF PLAN			1	12	\$1,200
A	RCP			1	24	\$4,800
A	BUILDING ELEVATIONS			2	24	\$4,800
A	INTERIOR ELEVATIONS			2	24	\$4,800
A	MISCELLANEOUS DETAILS			1	12	\$2,400
					120	\$20,400
MEETINGS - DESIGN COORDINATION						
				1		\$9,500
TOTAL ARCHITECTURAL					534	\$72,980

GM REPORT

January 22, 2019



1. **Generation System:** The following summarizes the generation forecast for February 2019:
 Projected Available Capacity: 322 MW
 Projected Demand: 220 MW
 Anticipated Reserve Margin: 102 MW
 - MEC 9 scheduled for overhaul Feb. 20th to March 5th.
 - Demand expected to be lower than February 2018
2. **New 40 MW Energy Storage Systems:** The completion of the 16 MW and 24 MW Energy Storage battery systems are now scheduled for the end of March 2019. The project will improve reliability by mitigating most of the outages due to the tripping of generators and the solar PV farm intermittency (see following pages) related outages by over 70%.
3. **Demand Side Management (DSM):** DSM Program reduces peak demand and reduces LEAC cost for all customers at a one time fixed rebate. GPA needs to add funding to DSM because the current funding of \$2.9M will be exhausted by next month.

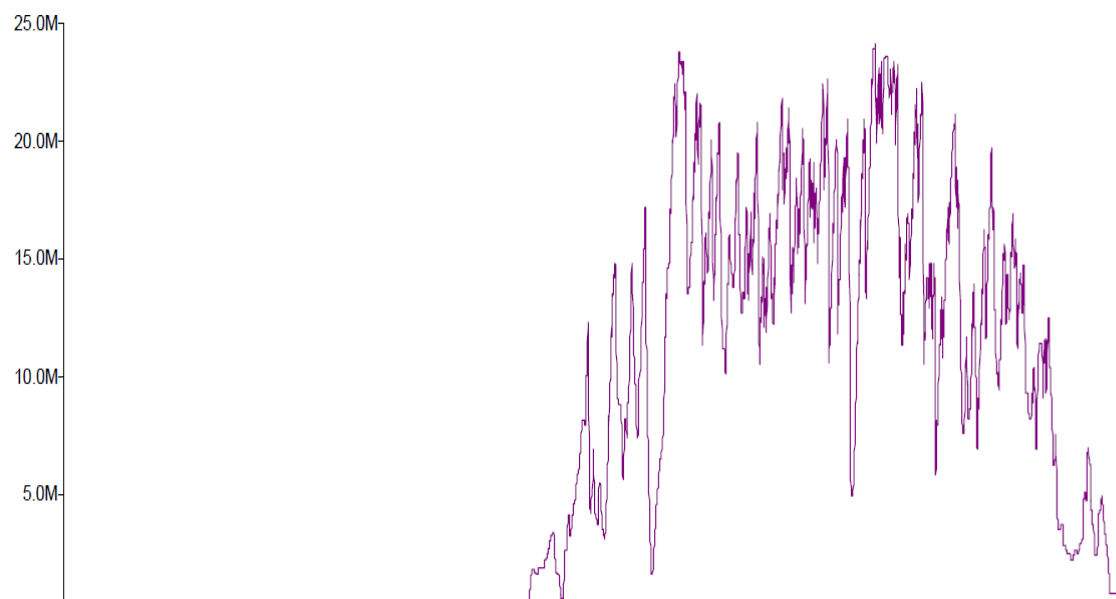
DSM PROGRAM SUMMARY

Description	FY16	FY17	FY18	FY19 thru 10/31/18*	Total to Date
Regular/OT Pay	\$ 11,349	\$ 22,256	\$ 26,122	\$ 12,379	\$ 72,106
Other Contractual	\$ 28,279	\$ 85,550	\$ 116,978	\$ 3,025	\$ 233,831
Bank Fees	\$ 155	\$ 1,032	\$ 1,085	\$ 65	\$ 2,337
Paid Rebates–Split AC	\$ 154,700	\$ 557,275	\$ 1,247,000	\$ 161,150	\$ 2,120,125
Paid Rebates– Central AC	\$ 3,400	\$ 8,200	\$ 4,400	\$ -	\$ 16,000
Paid Rebates– Washer/Dryer	\$ 2,800	\$ 7,425	\$ 48,800	\$ 10,000	\$ 69,025
Total Expenses	\$200,682	\$681,738	\$1,444,384	\$186,619	\$2,513,424



Solar PV Farm Intermittency

NRG Production Curve for Jan 14, 2018
Expect Similar Curve from 20 MW of NEM PV



Energy Storage Systems (ESS) Commissioning

4

Agana Substation ESS Project (24 MW/ 6MWH)



PCS &
Transformers

Grading, trenching,
conduit installation,
and PCS and
transformer
foundation



Energy Storage Systems (ESS) Commissioning

5

Talofofo Substation ESS Project (16MW/16MWH)



PCS

Grading, trenching,
conduit installation,
and PCS and
transformer
foundation



4. REVISED SCHEDULE FOR NEW POWER PLANT PROCUREMENT

No.	Activity	Duration (Days)	Cumulative Duration (Days)	Expected Completion
1	IFB Issued to Potential Bidders			10/1/2018
2	Pre-Bid Meeting with Bidders	30	30	11/5/2018
3	Site Visit	1	31	11/6/2018
4	Cut-Off Date for Receipt of Questions	1	32	12/19/2018
STEP 2 - TECHNICAL PROPOSAL EVALUATION				
5	Bid Date - Envelope I and II with exception of Fixed Cap Charge submitted to GPA.	141	141	2/19/2019
6	Complete Evaluation of Technical Proposals & Notify Bidders	45	186	4/5/2019
7	Submission of Price Proposal Deadline Fixed Capacity Charge (Envelope III)	179	179	3/29/2019
STEP 3 - PRICE PROPOSAL EVALUATION				
8	Conduct Envelope II & III Public Bid Opening Meeting	14	200	4/19/2019
9	Complete Evaluation of Envelope II & III; Invite the First-Ranked Bidder to Clarification Meeting	14	214	5/3/2019
10	Conduct Clarification Meeting(s) with First-Ranked Bidder and other top-ranked Bidders as required and selection of the Selected Bidder.	28	242	5/31/2019
11	Complete Negotiations of ECA with the Selected Bidder.	70	312	8/9/2019
12	GPA Rate Impact Study			8/9/2019
13	CCU Worksession			8/19 Session
14	CCU Meeting			8/19 Meeting
15	PUC Meeting			9/30/2019
16	Obtain CCU and PUC approval	52	364	9/30/2019
17	Sign the ECA with the Selected Bidder.	1	365	10/1/2019
18	IPP achieves financial close and starts construction.	180	545	3/29/2020
19	Phase 1 Commercial Operation Date	600	1145	11/19/2021
20	Phase 2 Commercial Operation Date	300	1445	9/15/2022

5. **LEAC Update:** GPA has recommended that it will not petition for a change in the LEAC factor for the period of February 1, 2019 to July 31, 2019. The LEAC rate to **remain at \$0.154242/kWh** effective for the period from February 1, 2019 thru July 31, 2019. Based on this status quo approach, an under-recovery of about **\$5.0M** is anticipated by the end of the LEAC period on July 31, 2019. The PUC will be establishing the rate later this month after we have provided updated information.

6. **Status of GPWA SCADA Project:** The system will improve system dispatching and day to day coordination between GPA and GWA. The commissioning of the GPWA SCADA Project will be in March 2019. The integration of the GWA Ugum Plant SCADA into the new system is expected by late February.

7. **Rating Agencies:** On December 12, 2018, CCU/GPA/GEDA updated the rating agencies, Fitch and S&P. The updates were particularly important in light of the impact on the island from tax changes and the frequent storms that we have been experiencing. I believe our investment grade ratings remain firm and stable as we continue to work on ways to achieve an upgrade. **Last week Moody's upgraded our rating to stable from negative.** Early last year, Moody's downgraded GPA to negative outlook due to GovGuam financial outlook.

8. **Phase III Renewables Bid:** The bid opening date has been issued. The bid request is for about 40MW of solar PV renewables to be constructed on Navy leased land; 30-year lease of 164 acres of Navy property for 40 MW solar PV Plant. Technical Proposals are due April 12, 2019. Award is targeted for this summer.



9. **PITI 8 & 9 (MEC Units):** This month, GPA takes ownership of the Piti 8 & 9 Units. The PUC has approved GPA Docket 18-13, Petition to extend the Piti 8 & 9 Contract with Osaka Gas for an additional 5 years. GPA is now working with Osaka gas to implement needed capital investments in order to improve the reliability of the units and extend its life for the next 10 to 20 years.
10. **Apprenticeship Program:** The next cycle of twenty (20) apprentices all in the T&D area began with orientation on January 22nd. There were 314 applicants vying for the program with 100 applicants passing the exams and were interviewed in December 2018. Twenty out of the 100 were selected to begin their apprenticeship on January 22nd.
11. **PGR Contract Deposit:** A clause in the contract provided for arbitration which was triggered thru the district court. The decision of the arbitrators was that GPA was not damaged and therefore deposit retained as liquidated damages is to be returned. GPA has return the deposit. GPA is removing similar languages from future contracts.
12. **December Tour of Power Plants in Michigan:** The tour taken by the SPORD Manager, New Power Plant Project Manager and myself was very informative. We were able to see first hand what power plants similar to what may be offered on the ongoing bid looked like. Additionally, we were able to discuss what issues we need to be cognizant of as we evaluate the bids. The following shows the combined cycle plant in Holland, Michigan and the Wartsila plant in Milwaukee, Michigan. The General Managers of both public power utilities personally took us on the tours.













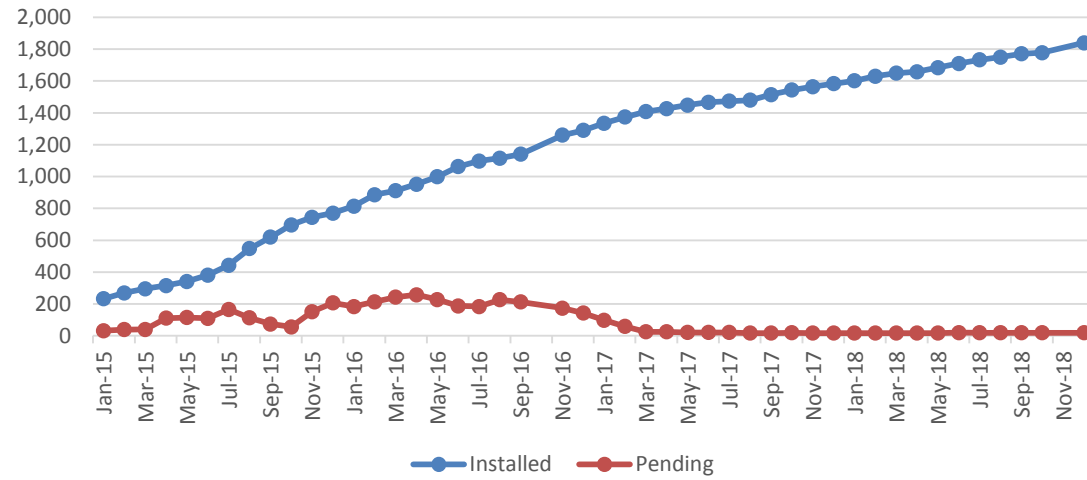


13. **Net Metering (NEM) Credit Adjustment:** CCU approved GPA filing a petition to the PUC to consider changes to the existing net metering credit. GPA filed with PUC for adjustment of net metering credits from retail to avoided cost with a Grandfather phase-out approach over 5 years to the GPA avoided cost credit. PUC has engaged its consultant Daymark to review the petition and work is on-going at this time. The following summarizes Net Metering Customers as of December 2018:

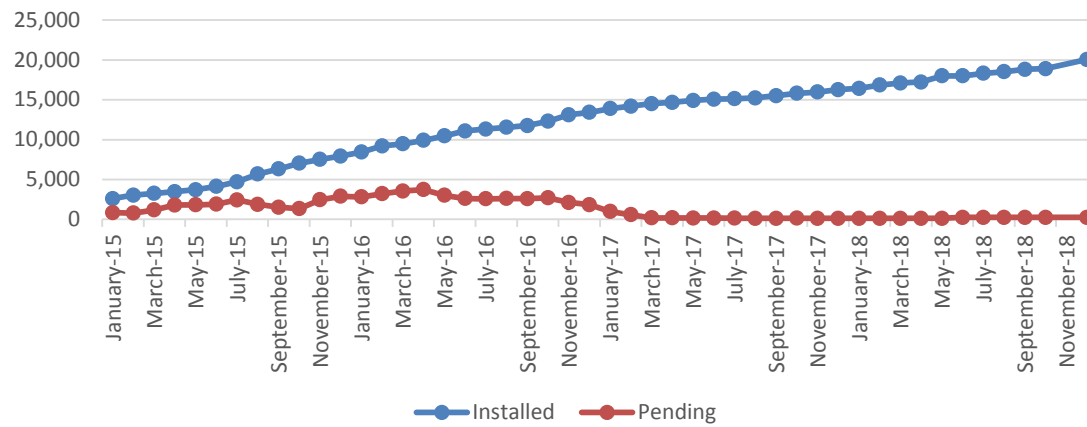
Net Metering Summary Ending December 2018:			
Description:	Count	Kw	
Active	1,840	20,053	
Pending	19	241	
Totals:	1,859	20,294	
Service:	Count	KW	Kw/Customer
Residential	1,741	16,077	9.2
Others	99	3,976	40.2
Total:	1,840	20,053	10.9
% Residential	94.6%	80.2%	
Estimated 12 Months Revenue Impact:	\$3,791,657		



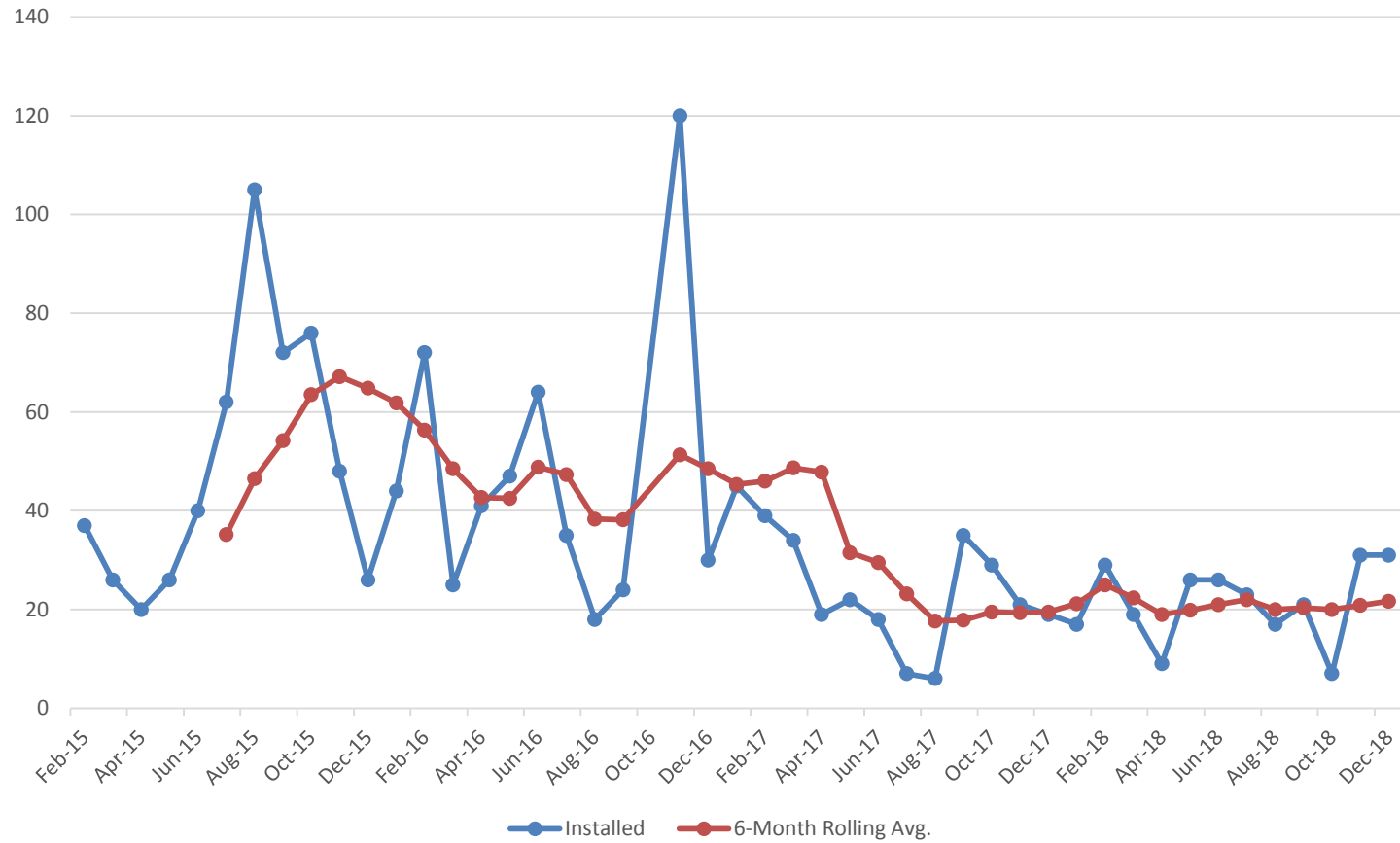
NEM Count



NEM KW



NEM Customers Monthly



14. Streetlights Conversion to LED

- Transition to LED (about 6,000 lights changed and 10,000 more to be replaced in FY 2019 & FY 2020)
- 3,750 Units totaling about \$568K being awarded for delivery in 10 weeks. Balance of about 6,000 Units for changeout in FY 2020
- LED lights changeout may include monitoring capability so that real time determination of lights out is made. Subject to economic feasibility and technology improvement.
- Transition to LED will result in cost savings which could be use to add about 2,731 additional lights at todays cost (see cost summary which follows).
- Streetlight Requirement Policy Should be Established

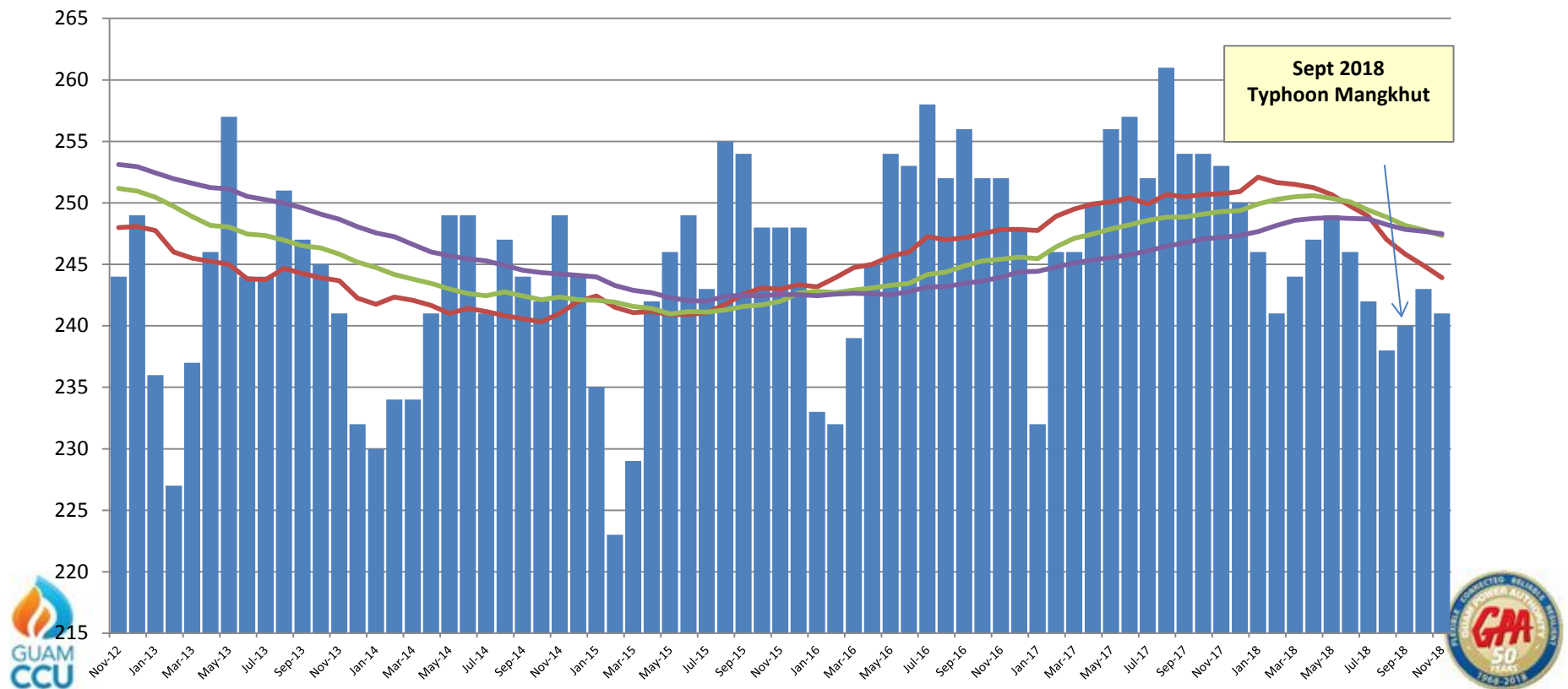


June 2018 Billing Data:				
Counts:	Type	250 Watts	150 Watts	Totals:
	HPS	1,765	7,947	9,712
	LED	779	5,708	6,487
		2,544	13,655	16,199
Cost:	Type	250 Watts	150 Watts	Totals:
	HPS	\$79,592	\$235,576	\$315,168
	LED	\$28,511	\$133,940	\$162,451
	Total:	\$108,103	\$369,516	\$477,619
\$/unit	Type	250 Watts	150 Watts	
	HPS	\$45.09	\$29.64	
	LED	\$36.60	\$23.47	
	Savings / Unit:	\$8.50	\$6.18	
	Monthly Savings			\$41,882
	Annual Savings			\$502,586
Balance for Changeout		250 Watts	150 Watts	Totals:
Remaining HPS Units		1,765	7,947	9,712
Estimated Material Cost		\$353,177	\$1,107,097	\$1,460,273
Estimated Additional Monthly Savings		\$14,993.91	\$49,097.17	\$64,091.07
Estimated Additional Annual Savings				\$769,092.88
Material Payback Period (Years)				1.9
Potential Additional Village Streetlights				2,731

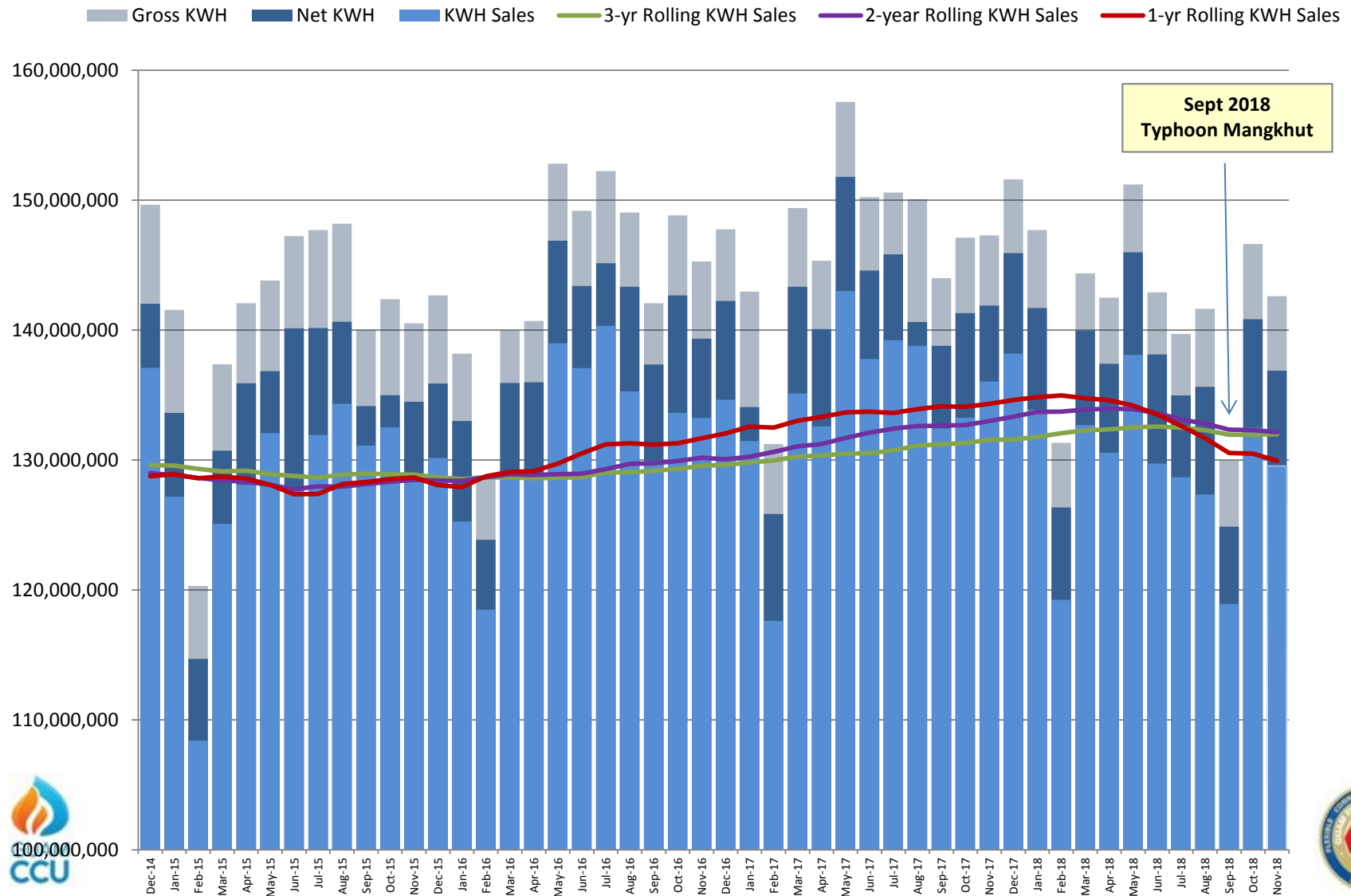
15. The following slides will provide an update on Saipan Recovery Efforts.
16. Key Performance Indicators: The following are indicators thru November 2018
Generation Data & RFO Platts Pricing and Premiums:

Historical Monthly Peak Demand Nov 2012 - Nov 2018

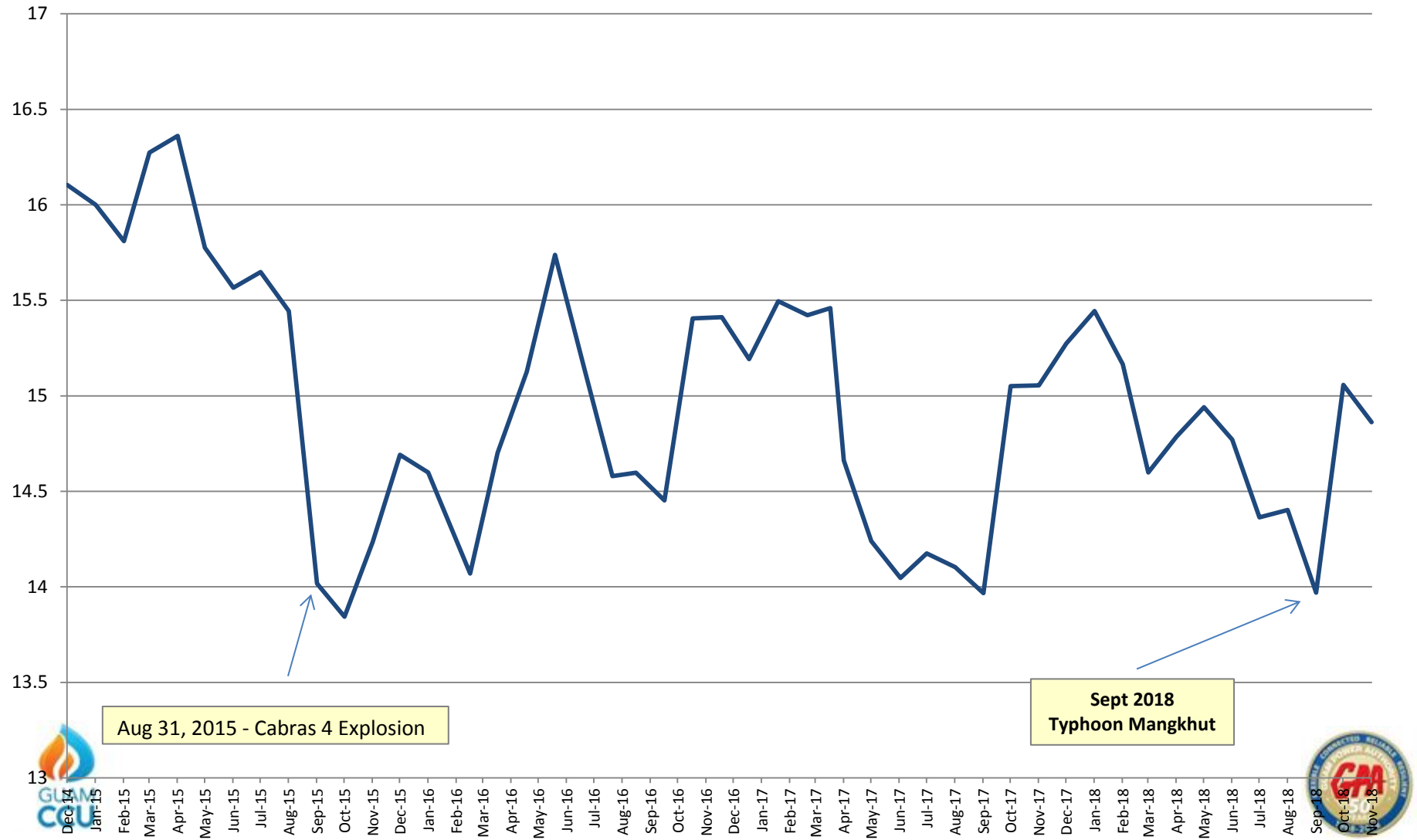
■ Peak Demand — 12-month Rolling Average — 2-year Rolling Average — 3-year Rolling Average



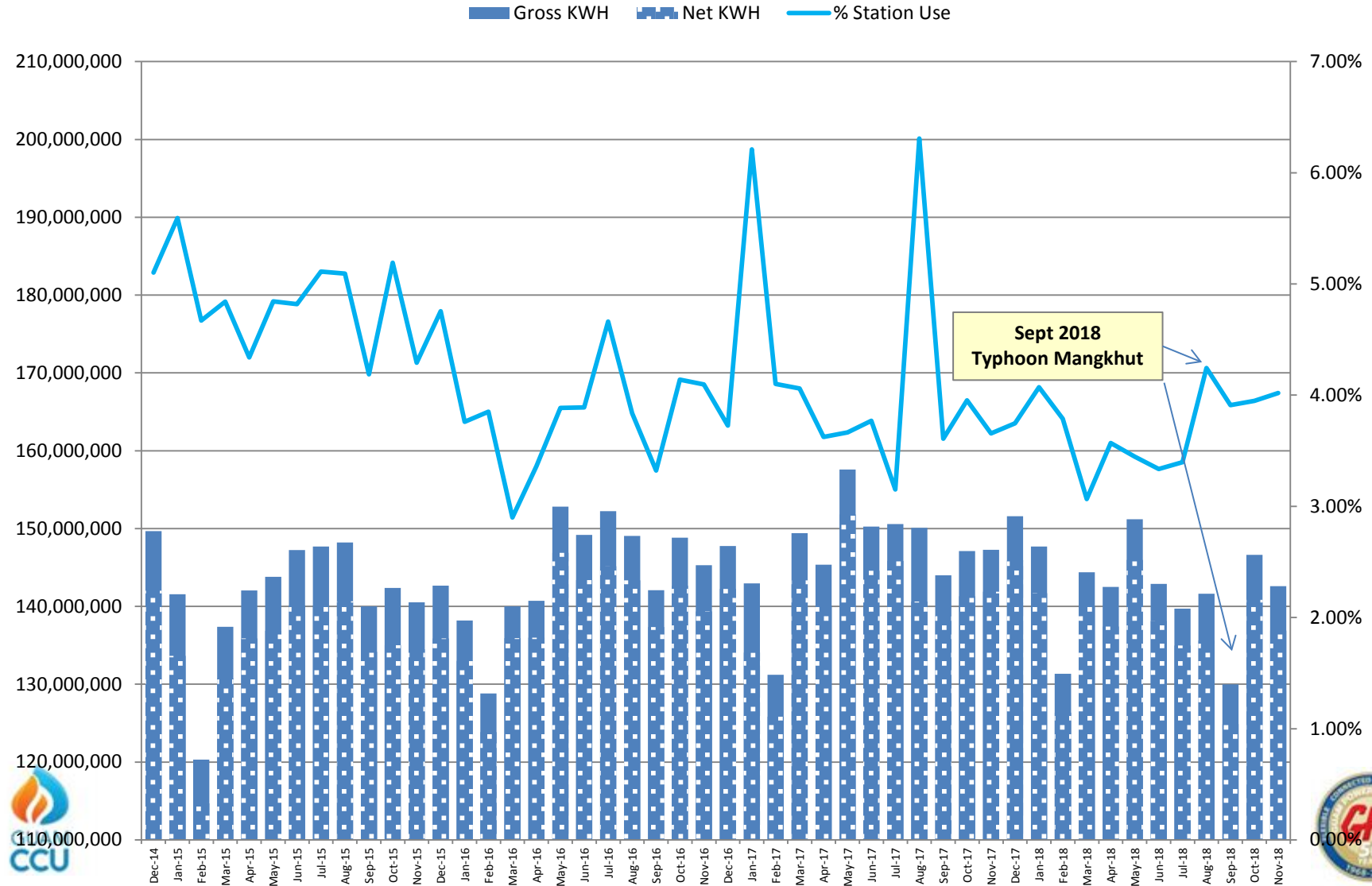
Historical KWH Sales Dec 2014 - Nov 2018



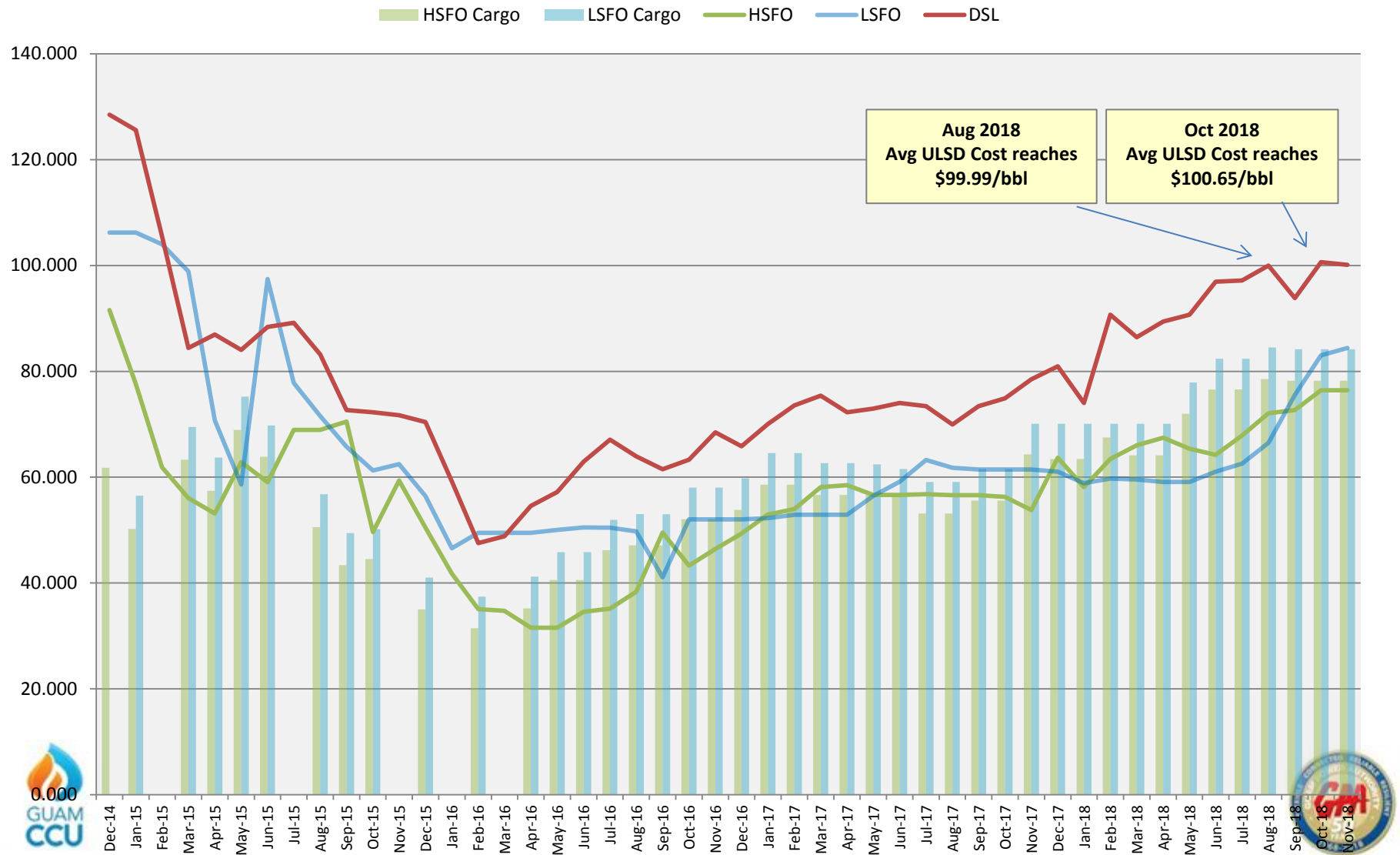
SYSTEM GROSS HEAT RATE (KWH/Gal) Dec 2014 - Nov 2018

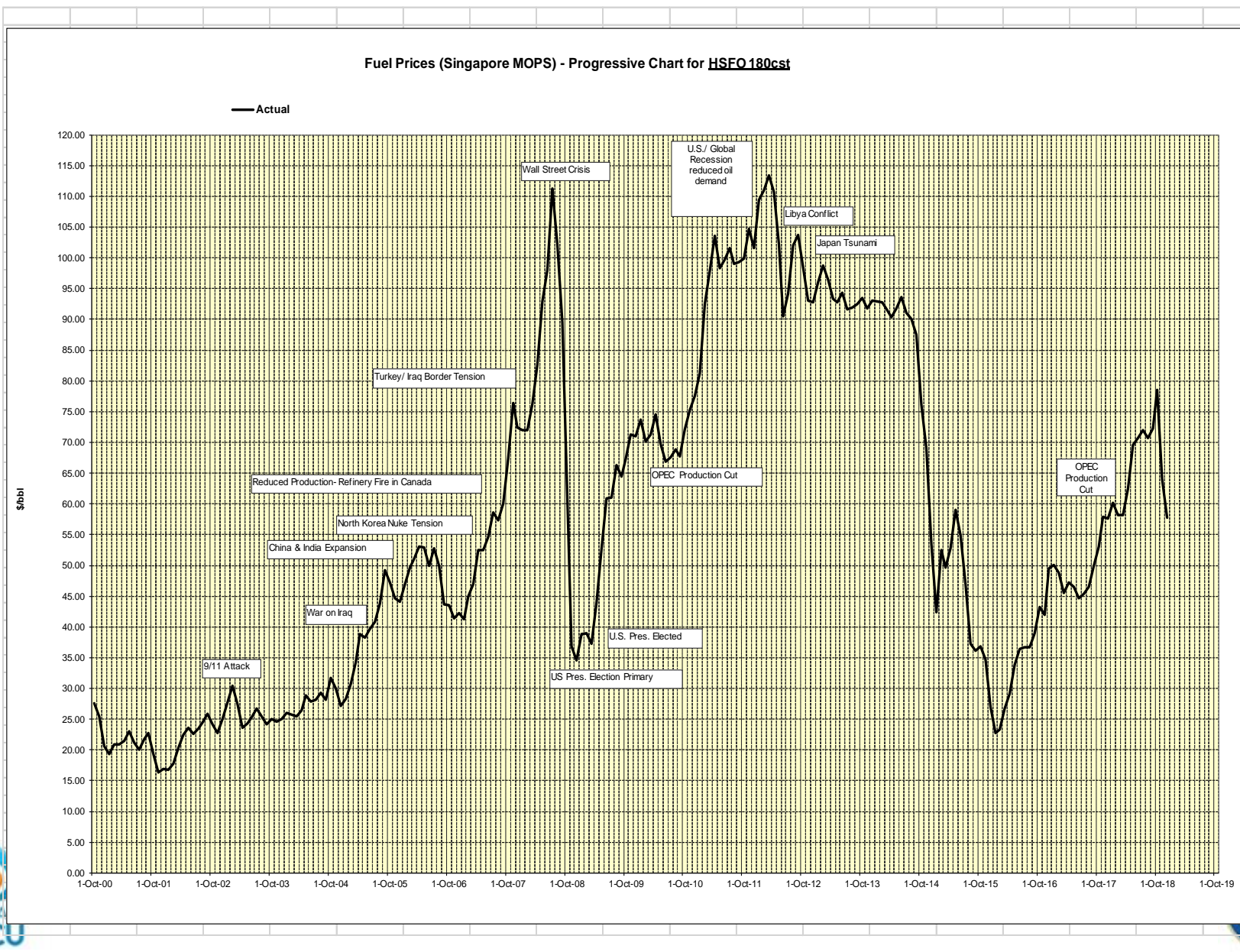


Gross and Net Generation (KWH) Dec 2014 - Nov 2018



Fuel Cargo and Fuel Consumption Costs (\$/bbl) Dec 2014 - Nov 2018





RFO Platts Pricing and Premiums

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg (\$/bbl)	LSFO:	Premium	Landed Cost	HSFO:		
---□--- FY 2005	31.661	30.066	27.171	28.362	30.686	34.215	38.800	38.305	39.695	40.800	43.841	49.157	36.063						
---+--- FY 2006	47.234	44.716	44.063	46.966	49.666	51.083	53.065	52.912	49.953	52.716	49.910	43.621	48.825						
---×--- FY 2007	43.54	41.38	42.25	41.28	44.98	46.91	52.43	52.54	54.61	58.65	57.31	60.06	49.661		8.788	58.449			
---◇--- FY 2008	67.490	76.397	72.390	72.045	71.998	76.289	82.728	92.921	97.994	111.214	102.125	89.476	84.422		8.788	93.210			
---*--- FY 2009	60.752	36.905	34.622	38.858	39.028	37.276	43.983	52.572	60.873	61.010	66.321	64.503	49.725		8.788	58.513			
---□--- FY 2010	67.229	71.242	71.047	73.702	70.139	71.298	74.548	69.656	66.844	67.590	68.827	67.674	69.983		6.705	76.688		4.639	74.622
---◇--- FY 2011	72.120	75.189	77.600	81.256	92.456	97.847	103.639	98.319	99.785	101.586	99.044	99.372	91.518		6.705	98.223		4.639	96.157
---×--- FY 2012	99.909	104.665	101.597	109.477	110.931	113.396	110.635	102.178	90.474	94.177	101.985	103.729	103.596						
---◇--- FY 2013	98.521	93.076	92.714	95.983	98.703	96.491	93.394	92.794	94.270	91.672	91.898	92.484	94.333		18.406	112.739		14.500	108.833
---◇--- FY 2014	93.421	91.707	93.117	92.845	92.716	91.505	90.357	91.709	93.660	91.049	90.053	87.515	91.638		13.159	104.797		6.869	98.507
---◇--- FY 2015	76.126	69.044	53.475	42.368	52.477	49.639	52.798	59.099	54.855	46.901	37.273	36.056	52.509		13.159	65.668		6.869	59.378
---◇--- FY 2016	36.909	34.702	27.050	22.779	23.270	26.786	29.115	33.863	36.437	36.675	36.733	38.914	31.936		12.530	44.466		6.555	38.491
---×--- FY 2017	43.269	41.929	49.486	50.007	48.861	45.461	47.296	46.502	44.595	45.403	46.481	49.928	46.601		12.530	59.131		6.555	53.156
---×--- FY 2018	53.057	57.915	57.575	60.170	58.224	58.208	62.394	69.564	70.718	71.991	70.640	72.261	63.560		12.530	76.090		6.555	70.115
---◇--- FY 2019	78.544	63.991	57.706	56.893									64.283						

ULSD Platts Pricing

GPA Cost: Add Premium of about \$11.00/BBL

15.000	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg (\$/bbl)
---a--- FY 2005													
---+--- FY 2006													
---X--- FY 2007													
--- -- FY 2008													
---*--- FY 2009													
---□--- FY 2010	82.249	85.643	83.219	86.487	83.587	88.850	96.207	89.684	87.815	86.720	88.416	89.119	87.333
---a--- FY 2011	95.700	99.274	104.943	110.694	120.072	134.294	141.084	129.111	128.628	130.909	126.248	125.495	120.538
---X--- FY 2012	123.915	130.767	126.110	130.415	135.190	139.269	136.174	125.880	113.129	120.554	131.728	133.888	128.918
--- -- FY 2013	131.366	126.880	126.500	128.345	134.549	125.303	119.580	118.053	119.563	124.430	126.367	126.089	125.585
---a--- FY 2014	125.583	125.595	127.620	123.095	124.267	122.617	124.275	121.860	122.340	120.496	118.008	113.102	122.405
--- -- FY 2015	101.542	95.931	78.807	63.842	72.140	72.433	73.891	80.107	77.012	68.184	60.672	61.211	75.481
---■--- FY 2016	60.943	58.991	48.109	37.577	40.234	46.450	49.510	56.162	59.079	54.901	54.074	55.249	51.773
---X--- FY 2017	61.660	57.138	64.197	66.025	67.418	63.135	65.019	61.806	58.382	61.490	64.294	69.347	63.326
---*--- FY 2018	70.250	74.057	75.889	81.837	78.066	78.376	84.282	90.526	87.398	86.885	88.511	93.797	82.489
---■--- FY 2019	97.254	82.290	70.011	70.453									80.002



Saipan Recovery Efforts

Super Typhoon Yutu



Super Typhoon Yutu Destruction

29

Damages



Damage Assessment - Saipan

30

Poles	Primary Wire (spans)	Secondary Wire (spans)	Transformers
1,772	5, 483	2,353	318



Super Typhoon Yutu Deployment

31



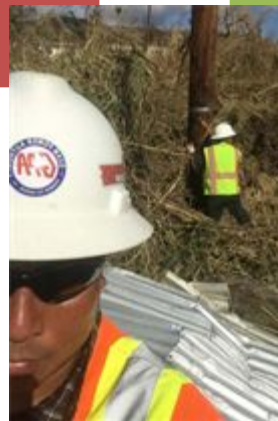
Sunday, Oct 28th
A 7-member
Forward Team
departed for
Saipan via
USCG C-130
out of AAFB



Tuesday, Oct 30th
John "Kadi"
Manibusan and
Rick Quidachay
began pole
installations



Tuesday, Oct 30th
Bucket trucks,
flatbed, and
utility trucks
and vans
loaded on to
the Russian
Antonov and
arrived in
Saipan early
evening.



Super Typhoon Yutu Deployment

32



Thursday, Nov 2nd
1st Wave of
employees, 26
member team
departed for Saipan
to join Forward
Team

Tuesday, Nov 6th
GPA materials
delivered to AAFB
for delivery to
Saipan and Tinian

Saturday, Nov 10th
Feeder Kiya 1
energized by GPA
crews for the first
time since the
storm



GPA YUTU SUPPORT

33

ManPower

33 Personnel

- Rick Quidachay, Asst T&D Mgr
- 11 Linemen
- 6 Operators
- 5 Engineers
- 2 Substation Electricians
- 1 Relay Technician
- 2 Generation Mechanics
- 2 Generation Electricians
- 2 Heavy Equipment Mechanics
- 1 Safety Officer

Equipment

- 4 Bucket Trucks
- 2 Vans
- 1 Light Cart
- 1 Flatbed
- 3 Utility Trucks

Materials

- 439 Power Poles
- 140,000 LF of Primary & Secondary Wire
- 92 Transformers
- 1,020 Crossarms
- Insulators, Connectors, Clamps, Nuts, Bolts



1st Wave TEAM GPA

34

ONE MARIANAS



Restoration Progress

35

Generation - Substation - Relay GSR



Restoration Progress

36

Material Recovery



Restoration Progress

37

Operators



Restoration Progress

38

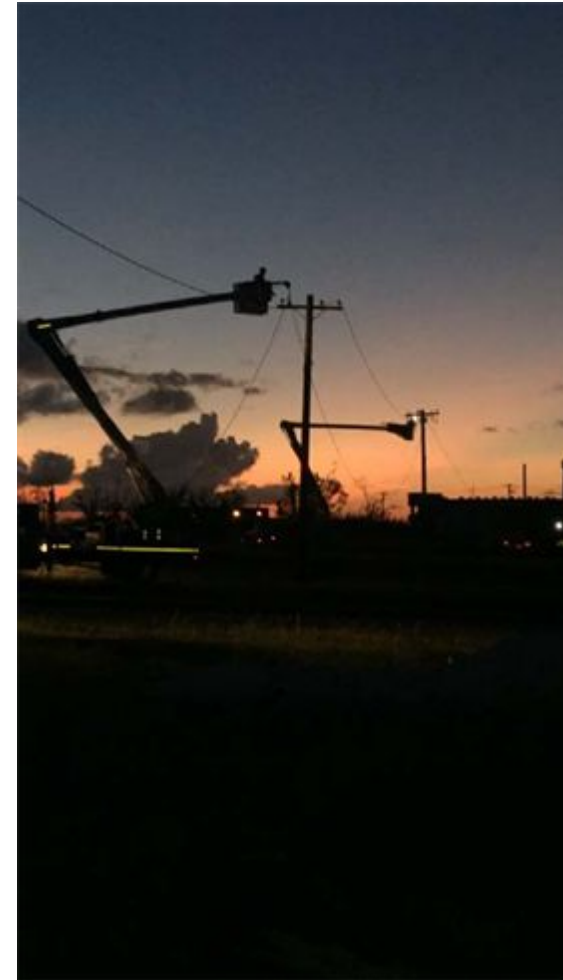
Line Crews



Restoration Progress

39

Line Crews



Restoration Progress

40

AIRPORT RISER



Before
Island power restored on 11/17

After

GPA Team 2nd Wave

41



GPA Assigned Sector 1

42



GPA CREWS - ENERGIZED CUSTOMERS

43

Date	No. of Meters	Total No. of Meters
1/8/2019	17	17
1/9/2019	62	79
1/10/2019	36	115
1/11/2019	14	129
1/12/2019	18	147
1/13/2019	40	187
1/14/2019	64	251
1/15/2019	37	288



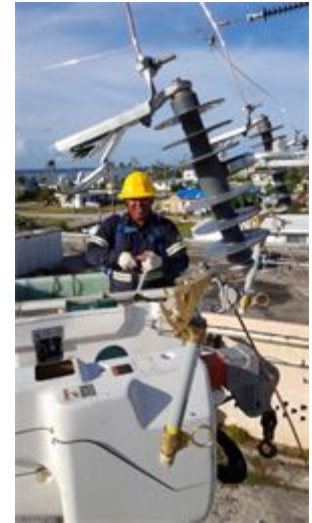
Line Crews

44



Line Crews

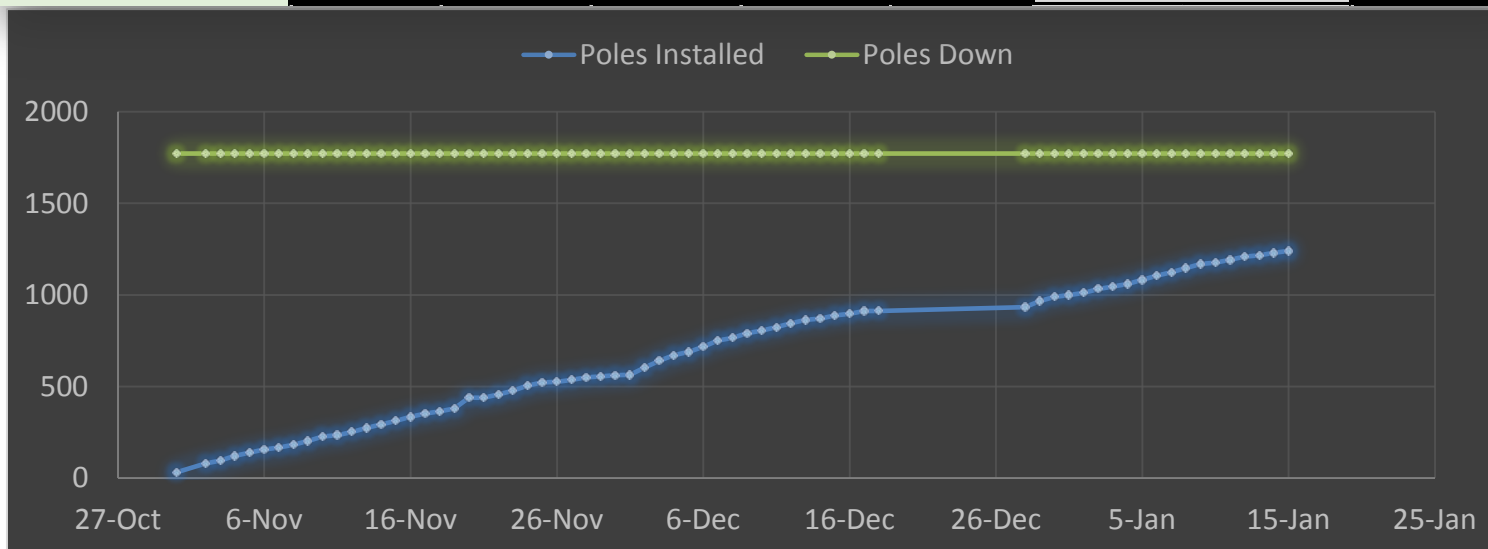
45



Pole Installation Summary

46

	Poles (55')	Poles (45')	Poles (35')	Primary Wire (spans)	Secondary Wire (spans)	Service	Framing	XFMR
Assessment Damage	17	1544	211	5483	2353			318
Count	1772							
Repair Work	57	1069	114	1084	222	470	663	179
Completed	1240							
Remaining	532			4399	2131			139



Pole Installation

47



Transformer Recovery Report

48

Estimated Savings > \$300K

TRANSFORMER SIZE	STATUS		TOTAL QTY
	PASSED	FAILED	
5		1	1
10	22	20	42
15	15	19	34
25	25	8	33
37.5	21	18	39
50	16	12	28
75	24	16	40
100	5	6	11
167.5		1	1
30	1	0	1
750 Pad Mtd	1		1
TOTAL	130	101	231



Transformers

49



GPA Saipan Yutu Recovery Assistance

50

Description	Amount
Materials Delivered	\$ 3,387,196.61
Materials pending	\$ 512,893.90
Total Materials:	\$ 3,900,090.51
Air Fare/ Per Diem	\$ 233,542.82
Labor 1st Wave	\$ 1,133,846.57
Labor 2nd Wave Estimated	\$ 778,130.00
Total Labor/Transportation/Per Diem	\$ 2,145,519.39
Estimated Total Assistance (Jan 17, 2018)	\$ 6,045,609.90
Payment Received:	\$ 1,273,846.71



SUMMARY

51

- GPA is making a significant difference in Saipan recovery efforts.
- The GPA Saipan team is working hard every day to restore critical services and businesses. They're concentrating on the Chalan Kanoa and Susupe areas.
- The team on Guam at T&D, Generation, Engineering, Transportation, & Safety are multi-tasking and picking up extra duties to ensure continuity of services on Guam.
- GPA Executive Management is in daily contact with the Saipan team and with the CUC to ensure smooth operations.
- Based on the damages and at the request of the CUC, GPA estimates another 30 days of work in Saipan.
- GPA has received its first payment from CUC for recovery assistance .



ADDITIONAL DATA GM REPORT



MEMORANDUM

TO: Chairman, CCU

FROM: General Manager

SUBJECT: Policy Decisions

The following is a list of significant policy decisions the CCU would need to address. The list is not necessarily complete but are of ones foremost in mind. The plan is to gather all the information we need to make a management recommendation to the commission for their deliberations and setting of policy. The policy will then guide the management team on future work and funding to achieve the decision of the commission.

It is recommended that the CCU and executive management conduct a strategic planning workshop within the next four months to update our strategic plan to set goals and objectives consistent with the commission policies.

Major issues for CCU Policy Decisions:

- The award of a 25-year independent Power Producer Contract for 180 MW of generation Capacity to replace aged power plants and to comply with the Clean Air Act regulations.
- Award of 40 MW PV Renewables on about 164 acres of navy properties with the capability to store daytime energy and shift for use in the evening hours.
- Establish the next Renewable Portfolio Standard for GPA and establish the plan to achieve such standard by contracting for more PV renewables, waste to energy, and other feasible technologies. Is our next target 50% of renewables by 2030?
- Procurement of Liquefied Natural Gas with storage and gasification infrastructure in order to diversify our fuel source to reduce and stabilize fuel cost.
- Upgrade of the transmission system in order to add more renewables and to increase reliability.



Memo - Policy Decisions (Cont'd)

- For resiliency how should we plan for the long-term conversion of our grid to an underground system. How fast do we convert the system and at what annual funding? Do we issue bonds so that the customers of today does not absorb all cost for infrastructure which would benefit other customers for decades?
- Determining new revenue sources for GPA such promotion of electric vehicles as a solution to the island's transportation resiliency. How do we migrate thru grants and/or incentives to an electric vehicle transportation system? This would increase electric revenues and decrease customer traveling and vehicle maintenance cost. Guam does not have a resilient solution for transportation energy.
- Establish a 10-year Human Resources Plan for GPA. There are a substantial number of employees that would be eligible to retire over the next ten years which could lead to shortfalls in expertise in various areas of GPA. The difficulty in hiring specialized fields in T&D. The near retirement of GPA operated base load units within the next 5 years would require cross training, retirement and buy-out incentives as we right size our human resource needs.
- Establish employment compensation and benefits policy which promotes the retention of employees. GPA invest on substantial training and employee development to insure the specialized expertise are on our island to meet our needs. Competition for expertise will be substantial. It is important our compensation and benefits program insure long term employee retention.
- Establish or update customer service, finance, reliability, safety and other benchmarks in order to gage our progress towards achieving established strategic goals and objectives.





GUAM POWER AUTHORITY

ATURIDAT ILEKTRESEDAT GUAHAN
 P O BOX 2977, AGANA, GUAM 96932-2977
 Telephone: (671) 648-3066 Fax: (671) 648-3168

GUAM POWER AUTHORITY FINANCIAL STATEMENT OVERVIEW November 2018

Attached are the financial statements and supporting schedules for the month and fiscal year ended November 30, 2018.

Summary

The increase in net assets for the month ended was \$1.4 million as compared to the anticipated net increase of \$0.6 million projected at the beginning of the year. The total kWh sales for the month were 2.86% less than projected and non-fuel revenues were \$0.5 million less than the estimated amount. O & M expenses for the month were \$4.8 million which was \$1.6 million less than our projections for the month. Other expenses for the month such as interest expense, IPP costs, (net of interest income and other income) totaled to \$3.6 million, which was in line with the projected amounts. There were no other significant departures from the budget during the period.

Analysis

Description	Previous Month	Current Month	Target
Quick Ratio	2.06	1.60	2
Days in Receivables	41	43	52
Days in Payables	29	49	30
LEAC (Over)/Under Recovery Balance -YTD	\$11,411,298	\$11,367,941	\$10,163,123
T&D Losses	5.21%	5.25%	<7.00%
Debt Service Coverage	1.31	1.34	1.75
Long-term equity ratio	18%	18%	30 – 40%
Days in Cash	185	187	60

The Quick Ratio has been a challenge for GPA historically. However, over the last two fiscal years, the influx of cash from insurance proceeds continued to improve this ratio. GPA has current obligations of approximately \$110 million and approximately \$177 million in cash and current receivables. Debt Service Coverage ratio is calculated using the methodology in use before the Fiscal Year 2002 change in accounting practice.

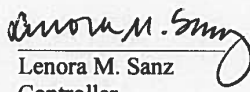
Financial Statements
November 2018

Significant Assumptions

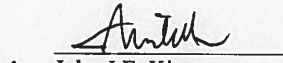
The significant assumptions in the financial statements are as follows:

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

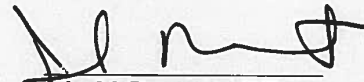
Prepared by:


Lenora M. Sanz
Controller

Reviewed by:


John J.E. Kim
Chief Financial Officer

Approved by:


John M. Benavente, P.E.
General Manager

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statements of Net Position November 30, 2018 and September 30, 2018			
	Unaudited November 2018	Unaudited September 2018	Change from Sept 30 2018
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
Current assets:			
Cash and cash equivalents:			
Held by trustee for restricted purposes:			
Interest and principal funds	9,676,903	17,997,927	(8,321,024)
Bond indenture funds	45,583,087	49,970,719	(4,387,632)
Held by Guam Power Authority:			
Bond indenture funds	131,563,593	142,583,470	(11,019,877)
Self insurance fund-restricted	19,258,353	19,258,353	0
Energy sense fund	809,190	1,085,472	(276,282)
Total cash and cash equivalents	206,891,126	230,895,941	(24,004,815)
Accounts receivable, net	45,696,454	37,746,060	7,950,394
Total current receivables	45,696,454	37,746,060	7,950,394
Materials and supplies inventory	13,027,486	12,695,441	332,045
Fuel inventory	68,967,714	67,993,103	974,611
Prepaid expenses	6,869,255	979,828	5,889,427
Total current assets	341,452,035	350,310,373	(8,858,338)
Utility plant, at cost:			
Electric plant in service	1,064,204,008	1,063,192,955	1,011,053
Construction work in progress	37,571,796	28,495,325	9,076,471
Total	1,101,775,804	1,091,688,280	10,087,524
Less: Accumulated depreciation	(605,824,686)	(598,792,653)	(7,032,033)
Total utility plant	495,951,118	492,895,627	3,055,491
Other non-current assets:			
Investment - bond reserve funds held by trustee	48,494,089	48,600,660	(106,571)
Unamortized debt issuance costs	2,456,400	2,503,448	(47,048)
Total other non-current assets	50,950,489	51,104,108	(153,619)
Total assets	888,353,642	894,310,108	(5,956,466)
Deferred outflow of resources:			
Deferred fuel revenue	11,367,941	8,370,542	2,997,399
Unamortized loss on debt refunding	26,700,214	27,093,636	(393,422)
Pension	8,698,853	8,698,853	0
Unamortized forward delivery contract costs	451,438	477,998	(26,560)
Total deferred outflows of resources	47,218,446	44,641,029	2,577,417
	935,572,088	938,951,137	(3,379,049)

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statement of Net Position, Continued November 30, 2018 and September 30, 2018			
	Unaudited November 2018	Unaudited September 2018	Change from Sept 30 2018
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION			
Current liabilities:			
Current maturities of long-term debt	16,130,000	1,630,000	14,500,000
Current obligations under capital leases	18,126,544	18,126,544	0
Accounts payable			
Operations	53,017,404	47,870,908	5,146,496
Others	6,756,689	259,708	6,496,981
Accrued payroll and employees' benefits	884,227	1,949,080	(1,064,853)
Current portion of employees' annual leave	2,280,848	2,101,168	179,680
Interest payable	5,266,070	14,660,598	(9,394,528)
Customer deposits	7,948,618	8,142,519	(193,901)
Total current liabilities	110,410,400	94,740,525	15,669,875
Regulatory liabilities:			
Provision for self insurance	19,345,291	19,345,291	0
Total regulatory liabilities	19,345,291	19,345,291	0
Long term debt, net of current maturities	588,109,360	604,881,434	(16,772,074)
Obligations under capital leases, net of current portion	2,395,291	6,571,815	(4,176,524)
Net Pension liability	80,880,060	81,468,099	(588,039)
DCRS sick leave liability	4,008,397	4,008,397	0
Employees' annual leave net of current portion	1,086,456	1,086,456	0
Customer advances for construction	388,419	385,293	3,126
Total liabilities	806,623,674	812,487,310	(5,863,636)
Deferred inflows of resources:			
Unearned forward delivery contract revenue	1,654,717	1,752,053	(97,336)
Pension	788,894	788,894	0
Total deferred inflows of resources	2,443,611	2,540,947	(97,336)
Commitments and contingencies			
Net Position:			
Net investment in capital assets	(35,121,319)	(40,128,079)	5,006,760
Restricted	25,565,528	47,856,103	(22,290,575)
Unrestricted	136,060,593	116,194,856	19,865,738
Total net position	126,504,802	123,922,880	2,581,922
	935,572,088	938,951,137	(3,379,049)

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statement of Revenues, Expenses and Changes in Net Assets						
	November 30		% of change Inc (dec)	Two Months Ended November 30		% of change Inc (dec)
	Unaudited 2018	Audited 2017		Unaudited 2018	Audited 2017	
Revenues						
Sales of electricity	33,913,666	29,227,453	16	68,028,632	58,788,473	16
Miscellaneous	284,230	148,862	91	640,424	284,810	125
Total	34,197,896	29,376,315	16	68,669,056	59,073,283	16
Bad debt expense	(91,500)	(83,583)	9	(183,000)	(167,166)	9
Total revenues	34,106,396	29,292,732	16	68,486,056	58,906,117	16
Operating and maintenance expenses						
Production fuel	20,710,545	15,400,262	34	41,261,031	31,336,029	32
Other production	1,132,655	1,198,788	(6)	2,410,077	2,589,304	(7)
	21,843,200	16,599,050	32	43,671,108	33,925,333	29
Depreciation	3,708,915	3,555,395	4	7,335,101	7,173,251	2
Energy conversion cost	1,404,104	1,762,816	(20)	2,748,851	3,509,520	(22)
Transmission & distribution	765,841	973,211	(21)	1,715,698	1,851,723	(7)
Customer accounting	370,981	386,931	(4)	787,962	840,525	(6)
Administrative & general	2,514,421	2,298,971	9	5,329,922	4,731,550	13
Total operating and maintenance expenses	30,607,462	25,576,374	20	61,588,642	52,031,902	18
Operating income	3,498,934	3,716,358	(6)	6,897,414	6,874,215	0
Other income (expenses)						
Interest income	390,379	848,816	(54)	517,043	1,010,436	(49)
Interest expense and amortization	(2,383,971)	(2,684,978)	(11)	(4,783,304)	(5,438,405)	(12)
Bond issuance costs	87,022	76,827	13	175,044	153,654	14
Allowance for funds used during construction	0	280,938	(100)	0	546,585	(100)
Other expense	(219,982)	(118,010)	0	(224,273)	(122,301)	83
Total other income (expenses)	(2,126,552)	(1,596,407)	33	(4,315,490)	(3,850,031)	12
Income (loss) before capital contributions	1,372,382	2,119,951	(35)	2,581,924	3,024,184	(15)
Capital contributions	0	4,795	0	0	4,795	0
Increase (decrease) in net assets	1,372,382	2,124,746	(35)	2,581,924	3,028,979	(15)
Total net assets at beginning of period (restated)	125,132,422	111,080,790	0	123,922,880	110,176,557	12
Total net assets at end of period	126,504,804	113,205,536	12	126,504,804	113,205,536	12

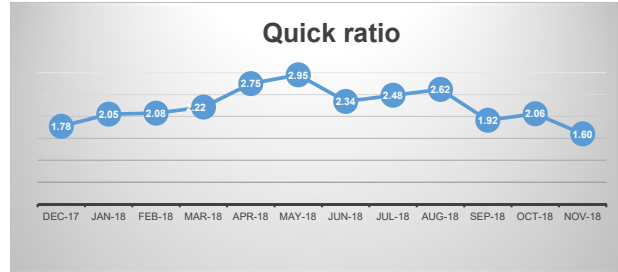
GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statements of Cash Flows Period Ended November 30, 2018		
	Month Ended 11/30/2018	YTD Ended 11/30/2018
Increase(decrease) in cash and cash equivalents		
Cash flows from operating activities:		
Cash received from customers	\$31,240,458	\$ 60,549,305
Cash payments to suppliers and employees for goods and services	18,194,689	53,884,429
Net cash provided by operating activities	\$13,045,769	6,664,876
Cash flows from investing activities:		
Interest and dividends on investments and bank accounts	390,379	517,043
Net cash provided by investing activities	390,379	517,043
Cash flows from non-capital financing activities		
Interest paid on short term debt	(6,293)	(13,287)
Net cash provided by noncapital financing activities	(6,293)	(13,287)
Cash flows from capital and related financing activities		
Acquisition of utility plant	(8,495,488)	(10,390,592)
Principal paid on bonds and other long-term debt	-	(1,630,000)
Interest paid on bonds(net of capitalized interest)	-	(14,052,875)
Interest paid on capital lease obligations	(48,004)	(111,670)
Interest & principal funds held by trustee	(3,680,202)	8,321,024
Reserve funds held by trustee	(45,065)	106,571
Bond funds held by trustee	4,284,394	4,387,632
Principal payment on capital lease obligations	(2,096,093)	(4,176,524)
Debt issuance costs/loss on defeasance	(320,537)	(642,074)
Net cash provided by (used in) capital and related financing activities	(10,400,995)	(18,188,508)
Net (decrease) increase in cash and cash equivalents	3,028,860.47	(11,019,876)
Cash and cash equivalents, beginning	128,534,733	142,583,470
Cash and cash equivalents-Funds held by GPA, November 30,2018	\$ 131,563,594	\$ 131,563,594

GUAM POWER AUTHORITY (A COMPONENT UNIT OF THE GOVERNMENT OF GUAM) Statements of Cash Flows, continued Period Ended November 30, 2018		
	Month Ended 11/30/2018	YTD Ended 11/30/2018
Reconciliation of operating earnings to net cash provided by operating activities:		
Operating earnings net of depreciation expense and excluding interest income	\$3,498,934	\$6,897,414
Adjustments to reconcile operating earnings to net cash provided by operating activities:		
Depreciation and amortization	3,708,915	7,335,101
Other expense	(132,960)	(49,229)
(Increase) decrease in assets:		
Accounts receivable	(2,871,457)	(7,950,394)
Materials and inventory	(46,636)	(332,045)
Fuel inventory	(11,819,932)	(974,611)
Prepaid expenses	(4,145,095)	(5,889,427)
Unamortized debt issuance cost	23,524	47,048
Deferred fuel revenue	43,357	(2,997,399)
Unamortized loss on debt refunding	196,711	393,422
Unamortized forward delivery contract costs	13,280	26,560
Increase (decrease) in liabilities:		
Accounts payable-operations	20,655,735	5,146,496
Accounts payable-others	5,478,052	6,773,263
Accrued payroll and employees' benefits	(1,383,366)	(1,064,853)
Net pension liability	(302,602)	(588,039)
Employees' annual leave	131,675	179,680
Customers deposits	46,302	(193,901)
Customer advances for construction	-	3,126
Unearned forward delivery contract revenue	(48,668)	(97,336)
Net cash provided by operating activities	\$13,045,769	\$6,664,876

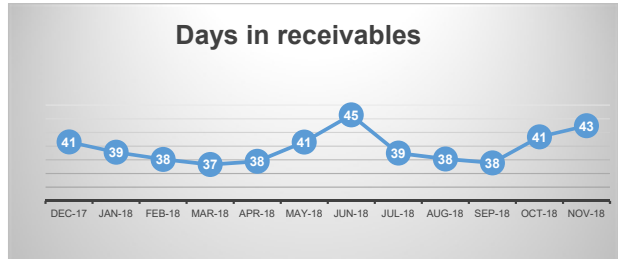
**Guam Power Authority
Financial Analysis
11/30/18**

Quick Ratio

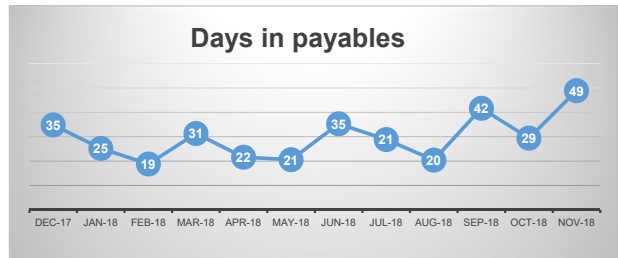
A	Reserve Funds Held by GPA	131,563,593
B	Current Accounts Receivable	45,633,753
C	Total Cash and A/R (A+B)	177,197,346
D	Total Current Liabilities	110,410,400
E	Quick Ratio (F/G)	1.60

**Days in Receivables**

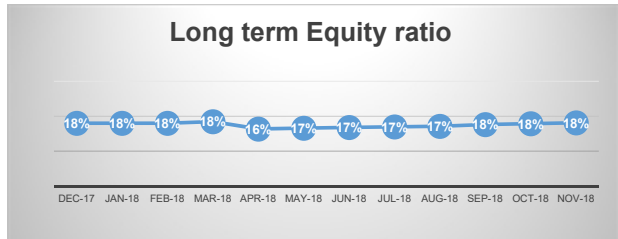
A	FY 18 Moving 12 Mos.-Actual	387,569,031
B	No. of Days	365
C	Average Revenues per day (A/B)	1,061,833
D	Current Accounts Receivable	45,633,753
E	Days in Receivables (D/C)	43

**Days in Payables**

A	FY 18 Moving 12 Months-Actual	446,089,900
B	No. of Days	365
C	Average Payables per day (A/B)	1,222,164
D	Current Accounts Payables	59,774,092
E	Days in Payables (D/C)	49

**Long term equity ratio**

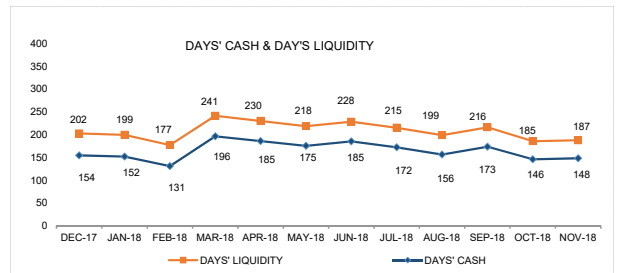
A	Equity	\$ 126,504,802.00
B	Total Long term Liability	\$ 571,856,273.00
C	Total Equity and liability	\$ 698,361,075.00
D	Long term equity ratio (A/C)	18%

**Days cash on hand**

A	Unrestricted cash & cash equivalents	131,564
B	No. of Days -YTD	61
C	A x B	8,025,379
D	Total Operating expenses excluding depreciation	54,254
E	Days cash on hand	148

Days' Liquidity

A	Unrestricted cash , cash equivalents & revolving Cre	166,564
B	No. of Days -YTD	61
C	A x B	10,160,379
D	Total Operating expenses excluding depreciation	54,254
E	Days liquidity	187



GPA 302
27-Dec-18

GUAM POWER AUTHORITY
ACCruED REVENUE
NOVEMBER 2018

		FOR THE MONTH ENDED NOVEMBER		TWO MONTHS ENDED NOVEMBER	
		2018	2017	2018	2017
KWH SALES:					
Residential		41,148,899	43,386,853	83,343,168	85,068,852
Small Gen. Non Demand		6,712,433	7,060,041	13,500,035	14,127,183
Small Gen. Demand		15,054,686	15,789,397	30,686,997	31,581,523
Large General		26,074,017	26,267,661	51,012,819	52,850,803
Independent Power Producer		35,867	93,823	66,393	186,067
Private St. Lights		33,984	35,042	67,515	68,893
	Sub-total	89,059,886	92,632,817	178,676,927	183,883,321
Government Service:					
Small Non Demand		1,096,422	1,255,131	2,328,794	2,506,744
Small Demand		7,758,614	8,098,974	15,844,277	16,382,192
Large		5,989,384	6,550,623	12,345,635	12,968,877
Street Lighting		744,605	668,464	1,357,640	1,481,413
	Sub-total	15,589,026	16,573,193	31,876,345	33,339,226
	Total	104,648,912	109,206,010	210,553,273	217,222,547
U. S. Navy		24,888,490	26,837,883	51,472,863	52,083,303
	GRAND TOTAL	129,537,402	136,043,893	262,026,136	269,305,850
REVENUE:					
Residential		\$ 10,286,420	\$ 9,263,463	\$ 20,884,233	\$ 18,182,507
Small Gen. Non Demand		\$ 1,938,660	\$ 1,789,263	\$ 3,934,653	\$ 3,582,144
Small Gen. Demand		\$ 4,091,967	\$ 3,699,298	\$ 8,393,284	\$ 7,457,323
Large General		\$ 6,715,109	\$ 5,793,817	\$ 13,082,381	\$ 11,595,193
Independent Power Producer		\$ 10,699	\$ 20,053	\$ 19,206	\$ 39,797
Private St. Lights		\$ 26,021	\$ 25,471	\$ 52,222	\$ 50,721
	Sub-total	\$ 23,068,875	\$ 20,591,366	\$ 46,365,978	\$ 40,907,686
Government Service:					
Small Non Demand		\$ 335,403	\$ 334,963	\$ 703,582	\$ 668,441
Small Demand		\$ 2,230,742	\$ 2,043,720	\$ 4,500,085	\$ 4,111,153
Large		\$ 1,646,650	\$ 1,583,988	\$ 3,380,935	\$ 3,130,434
Street Lighting		\$ 479,197	\$ 419,351	\$ 974,218	\$ 864,802
	Sub-total	\$ 4,691,993	\$ 4,382,022	\$ 9,558,820	\$ 8,774,829
	Total	\$ 27,760,868	\$ 24,973,388	\$ 55,924,798	\$ 49,682,515
U. S. Navy		\$ 6,152,798	\$ 4,254,065	\$ 12,103,834	\$ 9,105,958
	GRAND TOTAL	\$ 33,913,666	\$ 29,227,453	\$ 68,028,632	\$ 58,788,473
NUMBER OF CUSTOMERS:					
Residential		43,876	43,996	43,994	43,973
Small Gen. Non Demand		4,176	4,131	4,180	4,133
Small Gen. Demand		981	982	983	982
Large General		119	117	118	118
Independent Power Producer		3	3	3	3
Private St. Lights		524	527	526	529
	Sub-total	49,679	49,756	49,802	49,737
Government Service:					
Small Non Demand		667	678	677	677
Small Demand		327	354	340	353
Large		38	47	43	47
Street Lighting		628	378	629	378
	Sub-total	1,660	1,457	1,687	1,454
	Total	51,339	51,213	51,489	51,191
US Navy		1	1	1	1
		51,340	51,214	51,490	51,192

CCU Regular Meeting January 22, 2019 - GPA

GPA403 27-Dec-18		GUAM POWER AUTHORITY ACCURED REVENUE												
	TWELVE MONTHS ENDED	NOVEMBER 2018	OCTOBER 2018	SEPTEMBER 2018	AUGUST 2018	JULY 2018	JUNE 2018	MAY 2018	APRIL 2018	MARCH 2018	FEBRUARY 2018	JANUARY 2018	DECEMBER 2017	
KWH SALES:														
Residential	493,621,064	41,148,899	42,194,270	37,207,511	39,748,314	41,361,122	42,056,621	44,782,019	41,394,961	41,541,824	36,809,815	42,067,765	43,307,944	
Small General Non Demand	80,792,456	6,712,433	6,787,602	6,128,698	6,737,467	6,743,157	6,840,318	7,216,684	6,694,385	6,976,607	6,154,115	6,844,713	6,956,278	
Small General Demand	183,710,627	15,054,686	15,632,311	14,018,162	15,283,605	15,161,689	15,360,000	16,316,998	15,390,268	15,917,309	14,164,319	15,562,774	15,848,505	
Large General	305,530,266	26,074,017	24,938,803	23,573,240	24,724,982	25,339,577	25,263,128	26,377,222	25,681,619	26,155,199	23,674,407	26,242,185	27,485,887	
Private Outdoor Lighting	401,678	33,984	33,531	34,933	33,511	34,288	37,088	34,126	27,531	32,791	32,408	32,358	35,129	
Independent Power Producer	360,040	35,867	30,526	29,708	30,251	30,088	25,238	26,295	27,405	28,536	28,976	27,011	40,140	
Sub-Total	1,064,416,131	89,059,886	89,617,042	80,992,253	86,558,130	88,669,920	89,582,394	94,753,344	89,216,169	90,652,265	80,864,040	90,776,805	93,673,883	
Government Service:														
Small Non Demand	14,149,035	1,096,422	1,232,371	1,089,787	1,205,730	1,128,046	1,157,839	1,224,286	1,180,911	1,193,794	1,119,571	1,248,251	1,272,026	
Small Demand	92,408,021	7,758,614	8,085,662	7,082,161	7,641,330	7,182,975	7,404,715	8,098,401	7,720,850	7,889,205	7,377,578	8,102,981	8,063,549	
Large	74,027,065	5,989,384	6,356,251	5,873,776	6,179,381	5,707,305	5,896,149	6,622,597	6,142,309	6,226,210	5,905,830	6,315,619	6,812,255	
Street Lighting (Agencies)	8,922,445	744,605	613,035	734,966	842,364	903,135	795,661	761,901	699,601	743,499	669,689	716,067	697,921	
Sub-Total	189,506,566	15,589,026	16,287,319	14,780,690	15,868,805	14,921,461	15,254,364	16,707,185	15,743,671	16,052,709	15,072,669	16,382,918	16,845,750	
Total	1,253,922,697	104,648,912	105,904,361	95,772,942	102,426,935	103,591,381	104,836,757	111,460,529	104,959,840	106,704,974	95,936,708	107,159,724	110,519,633	
U.S. Navy	305,849,732	24,888,490	26,584,373	23,161,867	24,921,140	25,089,942	24,891,007	26,624,376	25,605,624	25,988,485	23,304,608	26,722,147	28,067,673	
Grand Total	1,559,772,430	129,537,402	132,488,734	118,934,809	127,348,076	128,681,323	129,727,764	138,084,906	130,565,464	132,693,459	119,241,316	133,881,870	138,587,306	
REVENUE:														
Residential	\$ 120,525,157	\$ 10,286,420	\$ 10,597,812	\$ 9,335,975	\$ 9,971,178	\$ 10,379,963	\$ 10,487,819	\$ 11,371,498	\$ 10,082,308	\$ 10,154,660	\$ 9,633,432	\$ 8,985,179	\$ 9,238,911	
Small General Non Demand	\$ 23,031,349	\$ 1,938,660	\$ 1,995,993	\$ 1,793,407	\$ 1,962,561	\$ 1,975,429	\$ 1,969,294	\$ 2,127,563	\$ 1,903,541	\$ 1,988,097	\$ 1,869,658	\$ 1,741,922	\$ 1,765,223	
Small General Demand	\$ 49,189,910	\$ 4,091,967	\$ 4,301,317	\$ 3,892,588	\$ 4,192,538	\$ 4,181,623	\$ 4,150,658	\$ 4,513,787	\$ 4,108,079	\$ 4,266,730	\$ 4,006,949	\$ 3,714,258	\$ 3,769,415	
Large General	\$ 76,406,249	\$ 6,715,109	\$ 6,367,272	\$ 6,170,948	\$ 6,427,049	\$ 6,510,707	\$ 6,533,909	\$ 6,798,955	\$ 6,399,879	\$ 6,565,683	\$ 6,086,686	\$ 5,762,313	\$ 6,067,740	
Private Outdoor Lighting	\$ 310,540	\$ 26,021	\$ 26,201	\$ 26,392	\$ 26,189	\$ 26,302	\$ 27,542	\$ 26,776	\$ 22,912	\$ 25,785	\$ 25,733	\$ 25,133	\$ 25,553	
Independent Power Producer	\$ 96,519	\$ 10,699	\$ 8,507	\$ 8,392	\$ 7,924	\$ 9,619	\$ 6,601	\$ 7,068	\$ 7,057	\$ 7,406	\$ 7,969	\$ 6,029	\$ 9,249	
Sub-Total	\$ 269,559,724	\$ 23,068,875	\$ 23,297,103	\$ 21,227,703	\$ 22,587,439	\$ 23,083,643	\$ 23,175,823	\$ 24,845,648	\$ 22,523,776	\$ 23,008,362	\$ 21,630,428	\$ 20,234,834	\$ 20,876,091	
Government Service:														
Small Non Demand	\$ 4,193,031	\$ 335,403	\$ 368,179	\$ 335,723	\$ 366,623	\$ 343,795	\$ 354,533	\$ 372,707	\$ 350,949	\$ 356,541	\$ 335,126	\$ 332,434	\$ 341,017	
Small Demand	\$ 25,929,192	\$ 2,230,742	\$ 2,269,343	\$ 2,104,471	\$ 2,213,718	\$ 2,081,391	\$ 2,159,463	\$ 2,323,025	\$ 2,164,585	\$ 2,224,973	\$ 2,094,220	\$ 2,016,922	\$ 2,046,340	
Large	\$ 20,103,112	\$ 1,646,650	\$ 1,734,285	\$ 1,680,530	\$ 1,733,549	\$ 1,609,173	\$ 1,667,786	\$ 1,840,797	\$ 1,676,200	\$ 1,707,269	\$ 1,628,297	\$ 1,525,771	\$ 1,652,805	
Street Lighting (Agencies)	\$ 5,666,899	\$ 479,197	\$ 495,021	\$ 477,638	\$ 499,032	\$ 568,447	\$ 477,183	\$ 477,272	\$ 452,952	\$ 455,729	\$ 439,995	\$ 427,482	\$ 416,951	
Sub-Total	\$ 55,892,234	\$ 4,691,993	\$ 4,866,827	\$ 4,598,362	\$ 4,812,921	\$ 4,602,806	\$ 4,658,965	\$ 5,013,801	\$ 4,644,687	\$ 4,744,512	\$ 4,497,638	\$ 4,302,609	\$ 4,457,113	
Total	\$ 325,451,957	\$ 27,760,868	\$ 28,163,930	\$ 25,826,065	\$ 27,400,361	\$ 27,686,449	\$ 27,834,788	\$ 29,859,448	\$ 27,168,463	\$ 27,752,874	\$ 26,128,065	\$ 24,537,443	\$ 25,333,204	
U.S. Navy	\$ 62,117,074	\$ 6,152,798	\$ 5,951,036	\$ 5,271,574	\$ 5,243,314	\$ 5,217,194	\$ 4,618,042	\$ 5,005,555	\$ 5,623,411	\$ 5,202,943	\$ 4,155,974	\$ 5,033,103	\$ 4,642,130	
Grand Total	\$ 387,569,031	\$ 33,913,666	\$ 34,114,966	\$ 31,097,639	\$ 32,643,674	\$ 32,903,643	\$ 32,452,830	\$ 34,865,003	\$ 32,791,874	\$ 32,955,817	\$ 30,284,040	\$ 29,570,546	\$ 29,975,334	
NUMBER OF CUSTOMERS:														
Residential	44,009	43,876	44,112	43,887	44,005	44,003	44,074	44,086	43,991	44,065	43,995	44,119	43,898	
Small General Non Demand	4,166	4,176	4,183	4,159	4,185	4,183	4,173	4,172	4,183	4,154	4,153	4,142	4,129	
Small General Demand	984	981	984	982	984	982	984	988	988	987	991	981	981	
Large General	119	119	117	118	118	119	119	119	119	119	118	119	118	
Private Outdoor Lighting	529	524	527	525	525	531	532	533	536	526	527	527	530	
Independent Power Producer	2	3	2	2	3	3	3	2	2	2	2	2	3	
Sub-Total	49,809	49,679	49,925	49,673	49,820	49,821	49,885	49,900	49,819	49,853	49,786	49,890	49,659	
Government Service:														
Small Non Demand	685	667	686	677	683	690	694	691	692	689	684	686	679	
Small Demand	349	327	352	353	354	351	351	350	350	351	350	350	350	
Large	46	38	47	47	47	47	47	47	47	47	47	47	47	
Street Lighting (Agencies)	531	628	629	627	614	612	559	526	513	479	421	389	378	
Sub-Total	1,611	1,660	1,714	1,704	1,698	1,700	1,651	1,614	1,602	1,565	1,503	1,472	1,454	
Total	51,421	51,339	51,639	51,377	51,518	51,521	51,536	51,514	51,421	51,418	51,289	51,362	51,113	
U.S. Navy	1	1	1	1	1	1	1	1	1	1	1	1	1	
Grand Total	51,422	51,340	51,640	51,378	51,519	51,522	51,537	51,515	51,422	51,419	51,290	51,363	51,114	

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GPA303
27-Nov-18

GUAM POWER AUTHORITY
ACCRUED REVENUE
OCTOBER 2018

RATE	NUMBER OF CUSTOMERS	KWH SALES	TOTAL REVENUE		BASE RATE REVENUE		AVERAGE PER CUSTOMER		NON-FUEL		FUEL	
			AMOUNT	C/KWH	C/KWH	AMOUNT	KWH	REVENUE	C/KWH	AMOUNT	C/KWH	AMOUNT
Month									0.154242			
R Residential	43,876	41,148,899	\$ 10,286,420	\$ 25.00	\$ 25.00	\$ 10,286,420	938	\$ 234	\$ 9.57	\$ 3,939,532	\$ 15.42	\$ 6,346,888
G Small Gen. Non Demand	4,176	6,712,433	\$ 1,938,660	\$ 28.88	\$ 28.88	\$ 1,938,660	1,607	\$ 464	\$ 13.46	\$ 903,321	\$ 15.42	\$ 1,035,339
J Small Gen. Demand	981	15,054,686	\$ 4,091,967	\$ 27.18	\$ 27.18	\$ 4,091,967	15,346	\$ 4,171	\$ 11.76	\$ 1,770,861	\$ 15.42	\$ 2,321,105
P Large General	119	26,074,017	\$ 6,715,109	\$ 25.75	\$ 25.75	\$ 6,715,109	219,109	\$ 56,429	\$ 10.41	\$ 2,713,131	\$ 15.35	\$ 4,001,978
I Independent Power Producer	3	35,867	\$ 10,699	\$ 29.83	\$ 29.83	\$ 10,699	11,956	\$ 3,566	\$ 14.95	\$ 5,363	\$ 14.88	\$ 5,336
H Private St. Lights	524	33,984	\$ 26,021	\$ 76.57	\$ 76.57	\$ 26,021	65	\$ 50	\$ 61.14	\$ 20,779	\$ 15.42	\$ 5,242
Sub-Total	49,679	89,059,886	\$ 23,068,875	\$ 25.90	\$ 25.90	\$ 23,068,875	1,793	\$ 464	\$ 10.50	\$ 9,352,986	\$ 15.40	\$ 13,715,889
Government Service:												
S Small Non Demand	667	1,096,422	\$ 335,403	\$ 30.59	\$ 30.59	\$ 335,403	1,644	\$ 503	\$ 15.17	\$ 166,289	\$ 15.42	\$ 169,114
K Small Demand	327	7,758,614	\$ 2,230,742	\$ 28.75	\$ 28.75	\$ 2,230,742	23,727	\$ 6,822	\$ 13.33	\$ 1,034,038	\$ 15.42	\$ 1,196,704
L Large	38	5,989,384	\$ 1,646,650	\$ 27.49	\$ 27.49	\$ 1,646,650	157,615	\$ 43,333	\$ 12.26	\$ 734,059	\$ 15.24	\$ 912,591
F Street Lighting (Agencies)	628	744,605	\$ 479,197	\$ 64.36	\$ 64.36	\$ 479,197	1,186	\$ 763	\$ 48.93	\$ 364,348	\$ 15.42	\$ 114,849
Sub-Total	1,660	15,589,026	\$ 4,691,993	\$ 30.10	\$ 30.10	\$ 4,691,993	9,391	\$ 2,827	\$ 14.75	\$ 2,298,734	\$ 15.35	\$ 2,393,259
U.S. Navy	1	24,888,490	\$ 6,152,798	\$ 24.72	\$ 24.72	\$ 6,152,798			\$ 6.23	\$ 1,551,401	\$ 18.49	\$ 4,601,397
TOTAL	51,340	129,537,402	\$ 33,913,666	\$ 26.18	\$ 26.18	\$ 33,913,666	2,523	\$ 661	\$ 10.19	\$ 13,203,120	\$ 15.99	\$ 20,710,546
Two Months Ended November 2018												
R Residential	43,994	83,343,168	\$ 20,884,233	\$ 25.06	\$ 25.06	\$ 20,884,233	1,894	\$ 475	\$ 9.63	\$ 8,029,216	\$ 15.42	\$ 12,855,017
G Small Gen. Non Demand	4,180	13,500,035	\$ 3,934,653	\$ 29.15	\$ 29.15	\$ 3,934,653	3,230	\$ 941	\$ 13.72	\$ 1,852,380	\$ 15.42	\$ 2,082,272
J Small Gen. Demand	983	30,686,997	\$ 8,393,284	\$ 27.35	\$ 27.35	\$ 8,393,284	31,234	\$ 8,543	\$ 11.93	\$ 3,662,053	\$ 15.42	\$ 4,731,231
P Large General	118	51,012,819	\$ 13,082,381	\$ 25.65	\$ 25.65	\$ 13,082,381	432,312	\$ 110,868	\$ 10.29	\$ 5,251,232	\$ 15.35	\$ 7,831,148
I Independent Power Producer	3	66,393	\$ 19,206	\$ 28.93	\$ 28.93	\$ 19,206	26,557	\$ 7,682	\$ 14.06	\$ 9,336	\$ 14.87	\$ 9,870
H Private St. Lights	526	67,515	\$ 52,222	\$ 77.35	\$ 77.35	\$ 52,222	128	\$ 99	\$ 61.92	\$ 41,808	\$ 15.42	\$ 10,414
Sub-Total	49,802	178,676,927	\$ 46,365,978	\$ 25.95	\$ 25.95	\$ 46,365,978	3,588	\$ 931	\$ 10.55	\$ 18,846,026	\$ 15.40	\$ 27,519,952
Government Service:												
S Small Non Demand	677	2,328,794	\$ 703,582	\$ 30.21	\$ 30.21	\$ 703,582	3,442	\$ 1,040	\$ 14.79	\$ 344,384	\$ 15.42	\$ 359,198
K Small Demand	340	15,844,277	\$ 4,500,085	\$ 28.40	\$ 28.40	\$ 4,500,085	46,669	\$ 13,255	\$ 12.98	\$ 2,056,232	\$ 15.42	\$ 2,443,853
L Large	43	12,345,635	\$ 3,380,935	\$ 27.39	\$ 27.39	\$ 3,380,935	290,486	\$ 79,551	\$ 12.14	\$ 1,499,312	\$ 15.24	\$ 1,881,623
F Street Lighting (Agencies)	629	1,357,640	\$ 974,218	\$ 71.76	\$ 71.76	\$ 974,218	2,160	\$ 1,550	\$ 56.33	\$ 764,813	\$ 15.42	\$ 209,405
Sub-Total	1,687	31,876,345	\$ 9,558,820	\$ 29.99	\$ 29.99	\$ 9,558,820	18,895	\$ 5,666	\$ 14.63	\$ 4,664,742	\$ 15.35	\$ 4,894,079
U.S. Navy	1	51,472,863	\$ 12,103,834	\$ 23.51	\$ 23.51	\$ 12,103,834			\$ 6.33	\$ 3,256,832	\$ 17.19	\$ 8,847,001
TOTAL	51,490	262,026,136	\$ 68,028,632	\$ 25.96	\$ 25.96	\$ 68,028,632	5,089	\$ 1,321	\$ 10.22	\$ 26,767,601	\$ 15.75	\$ 41,261,031
Twelve Months Ended November 2018												
R Residential	44,009	493,621,064	\$ 120,525,157	\$ 24.42	\$ 24.42	\$ 120,525,157	11,216	\$ 2,739	\$ 9.63	\$ 47,545,144	\$ 14.78	\$ 72,980,013
G Small Gen. Non Demand	4,166	80,792,456	\$ 23,031,349	\$ 28.51	\$ 28.51	\$ 23,031,349	19,393	\$ 5,528	\$ 13.71	\$ 11,077,702	\$ 14.80	\$ 11,953,647
J Small Gen. Demand	984	183,710,627	\$ 49,189,910	\$ 26.78	\$ 26.78	\$ 49,189,910	186,619	\$ 49,969	\$ 12.02	\$ 22,083,681	\$ 14.75	\$ 27,106,229
P Large General	119	305,530,266	\$ 76,406,249	\$ 25.01	\$ 25.01	\$ 76,406,249	2,578,314	\$ 644,778	\$ 10.43	\$ 31,875,661	\$ 14.57	\$ 44,530,588
I Independent Power Producer	2	360,040	\$ 96,519	\$ 26.81	\$ 26.81	\$ 96,519	148,982	\$ 39,939	\$ 12.73	\$ 45,838	\$ 14.08	\$ 50,682
H Private St. Lights	529	401,678	\$ 310,540	\$ 77.31	\$ 77.31	\$ 310,540	760	\$ 587	\$ 62.66	\$ 251,696	\$ 14.65	\$ 58,844
Sub-Total	49,809	1,064,416,131	\$ 269,559,724	\$ 25.32	\$ 25.32	\$ 269,559,724	21,370	\$ 5,412	\$ 10.60	\$ 112,879,722	\$ 14.72	\$ 156,680,001
Government Service:												
S Small Non Demand	685	14,149,035	\$ 4,193,031	\$ 29.63	\$ 29.63	\$ 4,193,031	20,661	\$ 6,123	\$ 15.03	\$ 2,127,038	\$ 14.60	\$ 2,065,993
K Small Demand	349	92,408,021	\$ 25,929,192	\$ 28.06	\$ 28.06	\$ 25,929,192	264,716	\$ 74,278	\$ 13.45	\$ 12,426,822	\$ 14.61	\$ 13,502,370
L Large	46	74,027,065	\$ 20,103,112	\$ 27.16	\$ 27.16	\$ 20,103,112	1,600,585	\$ 434,662	\$ 12.73	\$ 9,421,506	\$ 14.43	\$ 10,681,606
F Street Lighting (Agencies)	531	8,922,445	\$ 5,666,899	\$ 63.51	\$ 63.51	\$ 5,666,899	16,795	\$ 10,667	\$ 48.83	\$ 4,357,067	\$ 14.68	\$ 1,309,832
Sub-Total	1,611	189,506,566	\$ 55,892,234	\$ 29.49	\$ 29.49	\$ 55,892,234	117,602	\$ 34,685	\$ 14.95	\$ 28,332,433	\$ 14.54	\$ 27,559,801
U.S. Navy	1	305,849,732	\$ 62,117,074	\$ 20.31	\$ 20.31	\$ 62,117,074			\$ 6.25	\$ 19,107,360	\$ 14.06	\$ 43,009,714
TOTAL	51,422	1,559,772,430	\$ 387,569,031	\$ 24.85	\$ 24.85	\$ 387,569,031	30,333	\$ 7,537	\$ 10.28	\$ 160,319,515	\$ 14.57	\$ 227,249,517

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GPA-318
318Nov18

ENERGY ACCOUNT
FY 2019 Versus FY 2018

FOR INTERNAL USE ONLY

	November 2018		November 2017		Y T D 2019		Y T D 2018		MOVING TWELVE MONTHS	
Gross Generation	30		30		61		61		365	
Number of days in Period	241		253		243		254		261	
Peak demand	11/07/18		11/02/17		10/12/18		10/30/17		08/01/17	
Date	KWH	% change	KWH	% change	KWH	% change	KWH	% change	KWH	% change
Energy Account:										
Kilowatt hours GPA:										
Cabras 1 & 2	63,680,000		57,338,000		125,956,000		119,026,000		658,165,000	
Cabras No. 3	0		0		0		0		0	
Cabras No. 4	0		0		0		0		0	
MEC (ENRON) Piti 8 (IPP)	28,204,400		27,335,600		43,167,600		50,919,900		310,621,600	
MEC (ENRON) Piti 9 (IPP)	24,992,800		28,379,300		47,445,400		57,749,600		313,531,700	
TEMES Piti 7 (IPP)	4,627,988		2,012,977		17,721,578		4,643,899		53,391,176	
Tanguisson 2	0		0		0		0		0	
Tanguisson 1	0		0		0		0		0	
Diesels/CT's & Others:										
MDI 10MW	26,777		19,125		68,932		21,414		1,347,776	
NRG Solar Dandan	3,995,716		3,613,520		8,111,488		6,919,392		47,493,442	
Dededo CT #1	86,370		76,760		2,485,880		361,890		13,930,060	
Dededo CT #2	15,000		19,700		3,090,250		50,610		15,266,110	
Macheche CT	3,581,690		4,739,241		10,205,948		9,830,798		48,729,891	
Yigo CT (Leased)	3,651,575		3,535,184		10,516,538		6,272,060		53,157,644	
Tenjo	1,650,480		3,257,440		7,764,420		6,940,210		42,322,340	
Talofofo 10 MW	0		595,800		0		867,390		12,444,510	
Aggreko	8,116,353		17,452,799		13,275,604		31,391,437		142,612,257	
Wind Turbine*	0		32,389		10,431		38,379		284,356	
Orote	0		0		0		0		0	
Marbo	0		0		0		0		0	
	142,629,149		148,407,834		289,820,069		295,032,978		1,713,297,862	
Ratio to last year		96.11		102.14		98.23		100.33		97.12
Station use	5,619,537		5,373,165		11,310,332		11,164,219		62,862,053	
Ratio to Gross generation		3.94		3.62		3.90		3.78		3.67
Net send out	137,009,613		143,034,669		278,509,737		283,868,759		1,650,435,809	
Ratio to last year		95.79		102.65		98.11		100.69		97.13
KWH deliveries:										
Sales to Navy (@34.5kv)	24,888,490		26,837,883		51,472,863		52,083,303		305,849,732	
Ratio to last year		92.74		100.95		98.83		100.52		95.92
GPA-metered	112,121,123		116,196,786		227,036,874		231,785,456		1,344,586,077	
Ratio to last year		96.49		103.05		97.95		100.72		97.42
Power factor adj.	0		0		0		0		0	
Adjusted	112,121,123		116,196,786		227,036,874		231,785,456		1,344,586,077	
GPA KWH Accountability:										
Sales to civilian customers- accrual basis	104,648,912		109,206,010		210,553,273		217,222,547		1,253,922,696	
Ratio to last year		95.83		102.40		96.93		101.01		96.93
GPA use-KWH	335,814		264,996		673,861		541,901		4,019,529	
Unaccounted For	7,136,396		6,725,780		15,809,740		14,021,008		86,643,852	
Ratio to deliveries		6.36		5.79		6.96		6.05		6.44
Ratio to Gross Generation		5.00		4.53		5.46		4.75		5.06
Ratio to Net Send Out		5.21		4.70		5.68		4.94		5.25

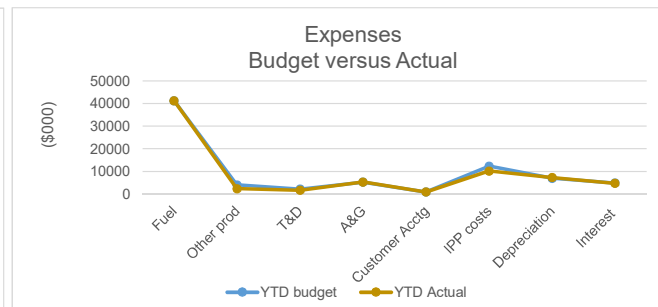
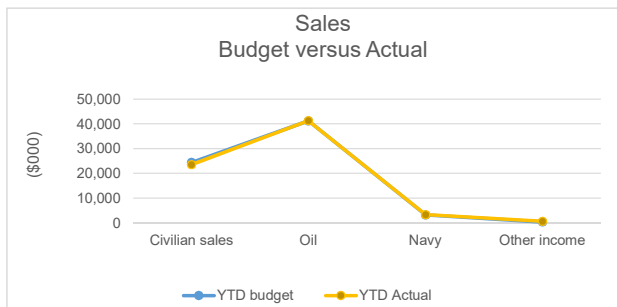
GPA-317Nov18

**Guam Power Authority
Fuel Consumption
FY 2019**

Description	November 2018		YEAR-TO-DATE		MOVING 12 MONTHS	
	BARRELS	AMOUNT	BARRELS	AMOUNT	BARREL S	AMOUNT
FUEL FURNISHED:						
NAVY:						
Diesel	0	0	0	0	0	0
Low Sulfur	0	0	0	0	0	0
	0	0	0	0	0	0
GPA:						
RFO	76,143	\$5,820,675	148,758	\$ 11,371,579	1,424,134	\$ 94,799,159
Diesel	45,978	\$4,602,931	142,526	\$ 14,320,516	800,832	\$ 74,492,111
Low Sulfur	103,165	\$8,710,791	185,780	\$ 15,568,634	517,910	\$ 37,155,870
Deferred Fuel Costs	0	\$43,357	0	\$ (2,997,400)	0	\$ 4,609,825
Fuel Adjustments	0	\$0		\$ 6,453	0	\$ (220,100)
Fuel Handling Costs	0	\$1,532,792	0	\$ 2,991,249	0	\$ 16,473,118
	225,286	\$20,710,545	477,064	\$ 41,261,031	2,742,876	\$ 227,309,983
IWPS:						
GPA RFO	76,143	\$5,820,675	148,758	\$ 11,371,579	1,424,134	\$ 94,799,159
Diesel	45,978	\$4,602,931	142,526	\$ 14,320,516	800,832	\$ 74,492,111
Low Sulfur	103,165	\$8,710,791	185,780	\$ 15,568,634	517,910	\$ 37,155,870
Deferred Fuel Costs	0	\$43,357	0	\$ (2,997,400)	0	\$ 4,609,825
Fuel Variance	0	\$0	0	\$ 6,453		\$ (220,100)
Fuel Handling Costs	0	\$1,532,792	0	\$ 2,991,249	0	\$ 16,473,118
	225,286	\$20,710,545	477,064	\$ 41,261,031	2,742,876	\$ 227,309,983
AVERAGE COST/Bbl.						
GPA RFO		\$76.44		\$76.44		\$66.57
Diesel		\$100.11		\$100.48		\$93.02
Low Sulfur		\$84.44		\$83.80		\$71.74
AS BURNED						
Cabras 1 & 2						
RFO	76,143	\$ 5,820,675	138,326	\$ 10,574,088	835,439	\$ 56,167,625
Low Sulfur	33,443	\$ 2,823,506	78,290	\$ 6,549,465	274,314	\$ 19,318,395
Diesel	0	\$ -	14	\$ 1,492	2,264	\$ 190,363
	109,586	\$ 8,644,181	216,630	\$ 17,125,045	1,112,017	\$ 75,676,382
Cabras 3 & 4						
RFO	0	\$ -	0	\$ -	0	\$ -
Low Sulfur	0	\$ -	0	\$ -	0	\$ -
Diesel	0	\$ -	0	\$ -	0	\$ -
	0	\$ -	0	\$ -	0	\$ -
MEC (Piti Units 8&9)						
RFO	0	\$ -	10,432	\$ 797,492	588,695	\$ 38,631,534
Low Sulfur	69,722	\$ 5,887,285	107,490	\$ 9,019,169	243,596	\$ 17,837,475
Diesel	0	\$ -	8	\$ 583	75	\$ 4,775
	69,722	\$ 5,887,285	117,930	\$ 9,817,243	832,366	\$ 56,473,784
Diesel & CT's - GPA:						
MDI Dsl	40	\$ 2,995	108	\$ 8,132	2,237	\$ 159,342
Macheche CT	8,138	\$ 817,921	21,842	\$ 2,190,064	104,531	\$ 9,613,000
Yigo CT	8,015	\$ 784,656	22,584	\$ 2,254,657	112,536	\$ 10,512,339
Talofofo 10 MW	0	\$ -	0	\$ -	21,016	\$ 1,873,270
Aggreko	14,827	\$ 1,457,348	24,163	\$ 2,399,583	262,609	\$ 24,213,378
Tenjo	2,654	\$ 283,826	13,910	\$ 1,471,475	73,105	\$ 7,034,844
TEMES (IPP)	11,992	\$ 1,224,920	43,253	\$ 4,420,875	135,081	\$ 12,881,019
GWA Generators	28	\$ 3,573	194	\$ 25,068	1,641	\$ 195,110
	45,978	\$ 4,602,931	142,504	\$ 14,318,441	798,494	\$ 74,296,974
Deferred Fuel Costs	0	\$ 43,357		\$ (2,997,400)		\$ 4,609,825
Adjustment		\$ -		\$ 6,453		\$ (220,100)
Fuel Handling Costs	0	\$ 1,532,792		\$ 2,991,249		\$ 16,473,118
TOTAL	225,286	\$ 20,710,545	477,064	\$ 41,261,031	2,742,876	\$ 227,309,983

Statement of operations
Comparison-Budget versus Actual
For the month and year to date ended November 30, 2018

	Budget	Actual November-18	Variance	YTD Budget	YTD Actual	Variance
KwH Sales-Civilian	107,527	104,649	2,878	216,827	210,553	6,274
Non-fuel yield	\$ 0.105487	\$ 0.111344	\$ (0.005857)	\$ 0.105487	\$ 0.111663	\$ (0.006177)
KwH Sales-Navy	25,819	24,888	931	50,316	51,472	-1,156
Non-fuel yield	\$ 0.062350	\$ 0.062319	\$ 0.000031	\$ 0.062350	\$ 0.063277	\$ (0.000927)
Operating revenue						
Civilian sales	\$ 12,113	\$ 11,652	\$ 461	\$ 24,396	\$ 23,511	\$ 885
Oil	20,568	20,711	(143)	41,205	41,261	(56)
Navy	1,610	1,551	59	3,137	3,257	(120)
Other income	168	284	(116)	337	640	(304)
	<u>34,459</u>	<u>34,198</u>	<u>260</u>	<u>69,075</u>	<u>68,669</u>	<u>405</u>
Bad debts expense	92	92	-	183	183	-
Total operating revenues	\$ 34,367	\$ 34,107	\$ 260	\$ 68,892	\$ 68,486	\$ 405
Operating expenses:						
Production fuel	\$ 20,568	\$ 20,711	\$ (143)	\$ 41,205	\$ 41,261	\$ (56)
O & M expenses:						
Other production	2,072	1,133	940	4,117	2,410	1,706
Transmission distribution	1,195	766	429	2,222	1,716	506
Administrative expense	2,761	2,514	246	5,279	5,330	(50)
Customer accounting	391	371	20	788	788	(0)
	<u>6,419</u>	<u>4,784</u>	<u>1,635</u>	<u>12,406</u>	<u>10,244</u>	<u>2,162</u>
IPP costs	1,347	1,404	(57)	2,695	2,749	(54)
Depreciation	3,501	3,709	(208)	7,003	7,335	(332)
	<u>\$ 31,836</u>	<u>\$ 30,607</u>	<u>\$ 1,228</u>	<u>\$ 63,307</u>	<u>\$ 61,589</u>	<u>\$ 1,719</u>
Operating income	\$ 2,532	\$ 3,499	\$ (968)	\$ 5,584	\$ 6,898	\$ (1,313)
Other revenue (expenses):						
Investment income	177	390	(213)	354	517	(163)
Interest expense	(2,454)	(2,384)	(70)	(4,907)	(4,783)	(124)
AFUDC	202	-	202	403	-	403
Bond issuance costs/Other expenses	142	(133)	275	285	(49)	334
	<u>599</u>	<u>1,373</u>	<u>(775)</u>	<u>1,719</u>	<u>2,582</u>	<u>(864)</u>
Net income before capital contribution						
Grants from the U.S. Government	-	-	-	-	-	-
Increase (decrease) in net assets	\$ 599	\$ 1,373	\$ (775)	\$ 1,719	\$ 2,582	\$ (864)



Guam Power Authority
Debt service coverage
November 30, 2018

	2015	2016	Restated 2017	Unaudited 2018	YTD 2019
Funds Available for Debt Service					
Earnings from Operations	\$ 48,758	\$ 37,981	\$ 36,522	\$ 40,725	\$ 6,897
Interest Income	368	1,227	(32)	1,254	52
Depreciation Expense	41,766	44,240	44,292	38,550	7,335
Balance Available for Debt Service	\$ 90,892	\$ 83,448	\$ 80,782	\$ 80,529	\$ 14,285
IPP - Capital Costs					
Principal	\$ 18,144	\$ 14,819	\$ 21,263	\$ 23,210	\$ 4,188
Interest	8,478	5,970	5,137	3,159	264
Total IPP Payments	\$ 26,622	\$ 20,789	\$ 26,400	\$ 26,369	\$ 4,452
Bond Debt Service					
Principal (1993 & 1999 Revenue Bond)	\$ -	\$ -	\$ -	\$ -	\$ -
Interest (1993 & 1999 Revenue Bond)	-	-	-	-	-
Principal and Interest (2010 Subordinate Bond)	9,605	-	-	-	-
Principal and Interest (2010 Senior TE Bond)	7,999	7,999	7,999	2,000	-
Principal and Interest (2012 Senior TE Bond)	17,096	17,098	17,449	17,086	5,245
Principal and Interest (2014 Senior TE Bond)	-	10	5,084	5,083	847
Principal and Interest (2017 Senior TE Bond)	-	-	-	5,916	1,268
Total	\$ 34,700	\$ 25,107	\$ 30,532	\$ 30,086	\$ 7,360
Debt Service Coverage (DSC) Calculation					
Existing DSC Methodology (Senior)	2.56 x	2.50 x	1.78 x	1.80 x	1.34 x
Existing DSC Methodology (Senior+Subordinate)	1.85 x	2.50 x	1.78 x	1.80 x	1.34 x
Bond Covenant DSC	2.62 x	3.32 x	2.65 x	2.68 x	1.94 x
Debt Service Coverage Requirements					
Existing Ratemaking DSC Target	1.75 x	1.75 x	1.75 x	1.75 x	1.75 x
Minimum Bond Covenant Requirement (Senior Bond)	1.30 x	1.30 x	1.30 x	1.30 x	1.30 x
Minimum Bond Covenant Requirement (Subordinate Bond)	1.20 x	1.20 x	1.20 x	1.20 x	1.20 x

Notes:

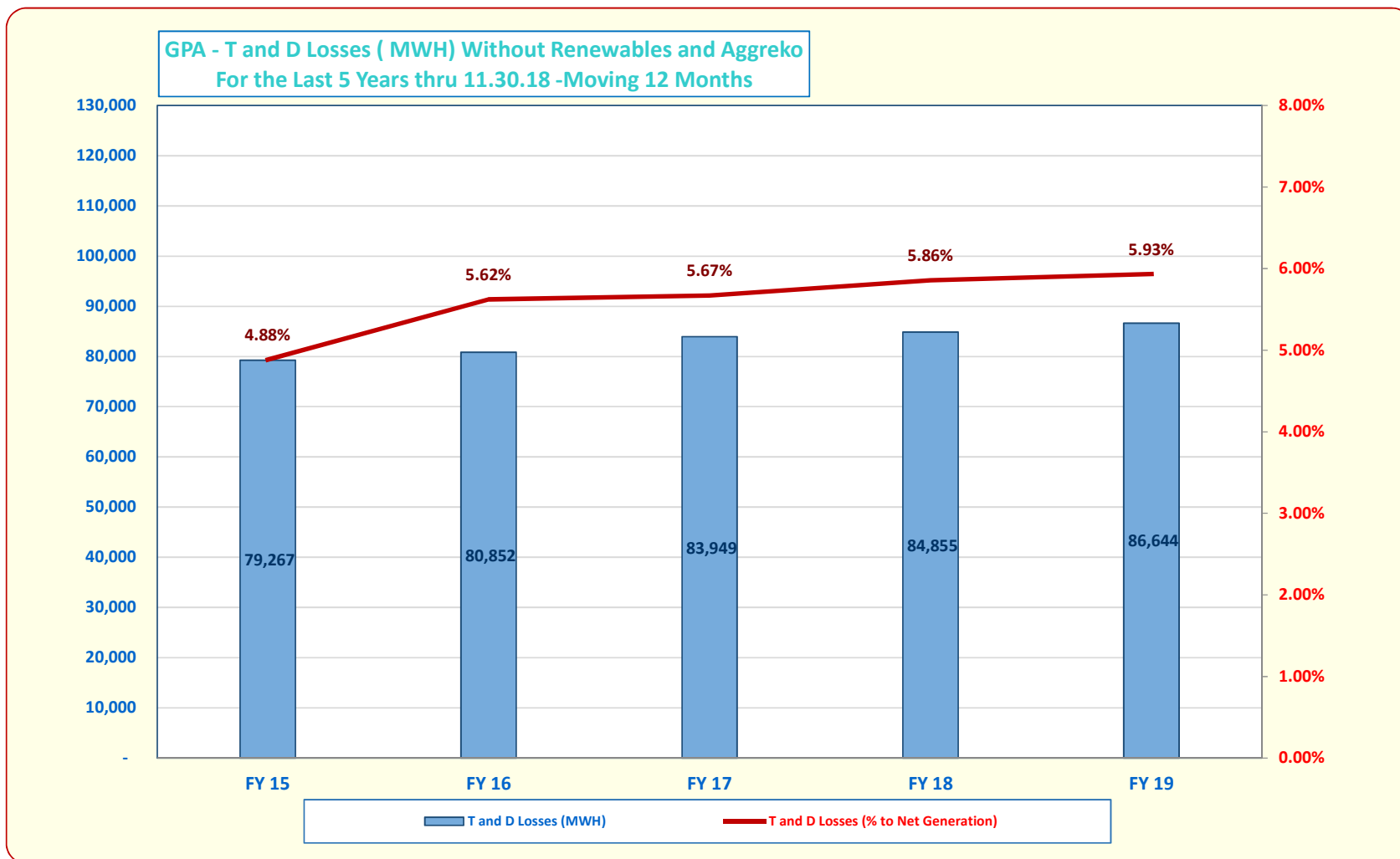
- (1) Source: Guam Power Authority, 2014 - 2017 Audited Financial Statements
- (2) Interest income is net of interest earnings in the Construction Fund and the amortization of deferred credit.
- (3) Existing DSC Methodology (Rating Agency Method):
 (Operating Earnings + Depreciation Expense - IPP Principal & Interest Payments)/
 (Senior and Subordinate Bond Principal & Interest Payments)
- (4) Bond Covenant DSC Methodology: (Operating Earnings + Depreciation Expense)/
 (Senior and Subordinate Bond Principal & Interest Payments)

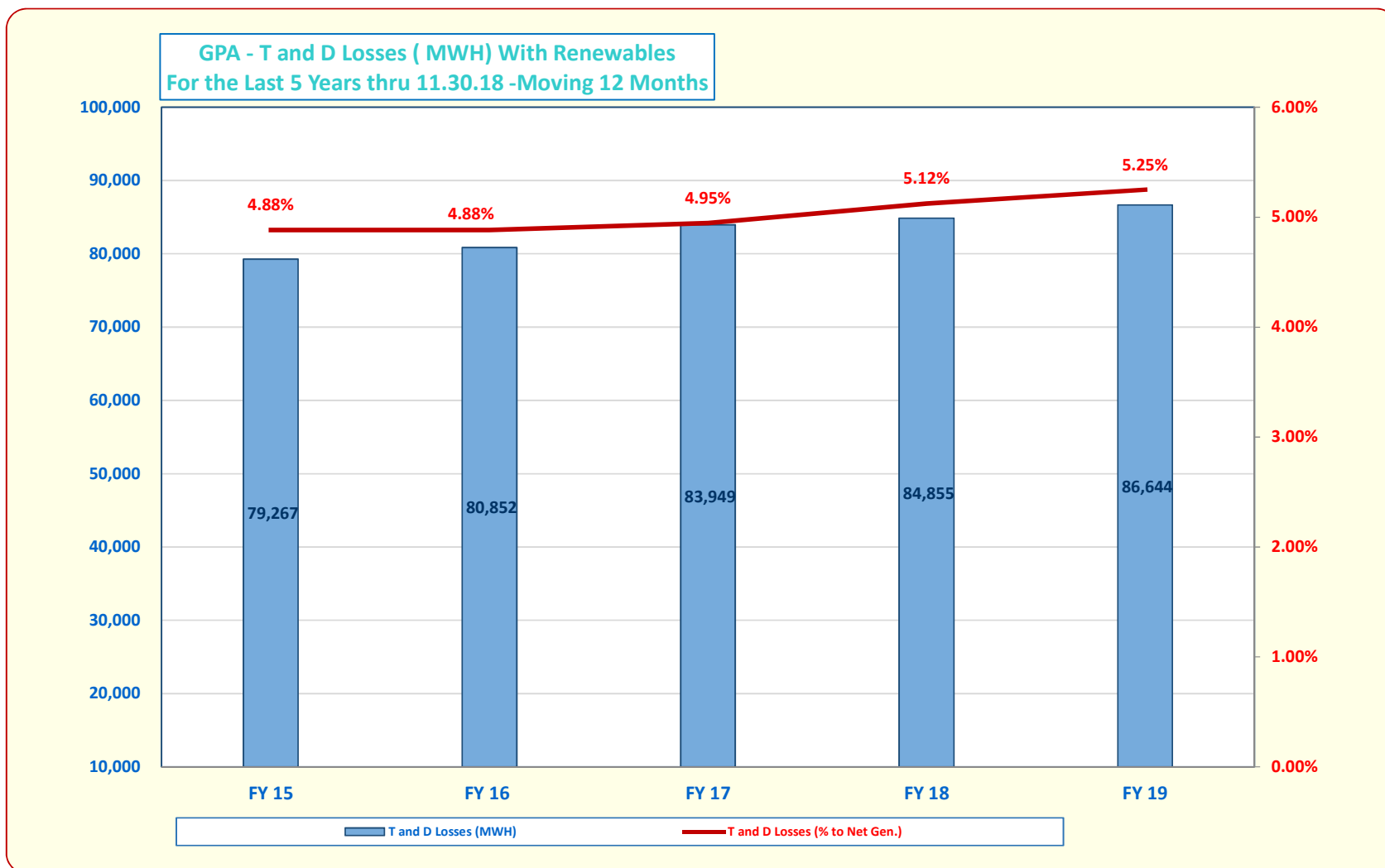
CCU Regular Meeting January 22, 2019 - GPA

REVENUES-ACTUAL VS PROJECTIONS								
MONTHLY - NOVEMBER 2018					YTD THRU 11/30/2018			
	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE
KWH								
Residential	41,644,724	41,148,899	(495,826)	-1.19%	84,743,943	83,343,168	(1,400,775)	-1.65%
Small General-Non-Demand	6,781,218	6,712,433	(68,785)	-1.01%	13,972,201	13,500,035	(472,166)	-3.38%
Small General-Demand	15,192,326	15,054,686	(137,640)	-0.91%	30,910,128	30,686,997	(223,131)	-0.72%
Large	27,144,272	26,074,017	(1,070,255)	-3.94%	53,322,619	51,012,819	(2,309,800)	-4.33%
Independent Power Producers	47,429	35,867	(11,563)	-24.38%	93,171	66,393	(26,778)	-28.74%
Private St. Lites	44,048	33,984	(10,064)	-22.85%	85,580	67,515	(18,065)	-21.11%
Sub-total	90,854,018	89,059,886	(1,794,132)	-1.97%	183,127,641	178,676,927	(4,450,714)	-2.43%
Government								
Small_Non Demand	1,169,946	1,096,422	(73,524)	-6.28%	2,417,442	2,328,794	(88,649)	-3.67%
Small-Demand	8,374,886	7,758,614	(616,272)	-7.36%	16,802,935	15,844,277	(958,659)	-5.71%
Large	6,215,180	5,989,384	(225,796)	-3.63%	12,743,921	12,345,635	(398,286)	-3.13%
Public St. Lites	913,316	744,605	(168,710)	-18.47%	1,734,672	1,357,640	(377,031)	-21.74%
Sub-total	16,673,328	15,589,026	(1,084,302)	-6.50%	33,698,970	31,876,345	(1,822,625)	-5.41%
Total-Civilian	107,527,346	104,648,912	(2,878,434)	-2.68%	216,826,611	210,553,273	(6,273,339)	-2.89%
USN	25,818,908	24,888,490	(930,418)	-3.60%	50,316,240	51,472,863	1,156,623	2.30%
Grand Total	133,346,254	129,537,402	(3,808,852)	-2.86%	267,142,852	262,026,136	(5,116,716)	-1.92%
Non-Oil Yield								
Residential	0.096102	0.095738	(0.000364)	-0.38%	0.096102	0.096339	0.000237	0.25%
Small General-Non-Demand	0.136352	0.134574	(0.001778)	-1.30%	0.136352	0.137213	0.000861	0.63%
Small General-Demand	0.119289	0.117629	(0.001660)	-1.39%	0.119289	0.119336	0.000047	0.04%
Large	0.103671	0.104055	0.000384	0.37%	0.103671	0.102939	(0.000732)	-0.71%
Independent Power Producers	0.120485	0.149520	0.029035	0.00%	0.120485	0.140619	0.020134	0.00%
Private St. Lites	0.568458	0.611419	0.042961	7.56%	0.568458	0.619240	0.050782	8.93%
Sub-total	0.105487	0.105019	(0.000468)	-0.44%	0.105524	0.105475	(0.000048)	-0.05%
Government								
Small_Non Demand	0.150024	0.151665	0.001641	1.09%	0.150024	0.147881	(0.002143)	-1.43%
Small-Demand	0.134359	0.133276	(0.001083)	-0.81%	0.134359	0.129778	(0.004581)	-3.41%
Large	0.126658	0.122560	(0.004098)	-3.24%	0.126658	0.121445	(0.005213)	-4.12%
Public St. Lites	0.482817	0.489317	0.006500	1.35%	0.482817	0.563340	0.080523	16.68%
Sub-total	0.151675	0.147458	(0.004217)	-2.78%	0.150508	0.146339	(0.004169)	-2.77%
Total-Civilian	0.154242	0.111341	(0.042901)	-27.81%	0.154242	0.111662	(0.042580)	-27.61%
USN	0.062350	0.062334	(0.000016)	-0.03%	0.062350	0.063273	0.000923	1.48%
Grand Total	0.102910	0.101925	(0.000984)	-0.96%	0.103067	0.102156	(0.000910)	-0.88%
Non-Oil Revenues								
Residential	4,002,141	3,939,532	(62,609)	-1.56%	8,144,062	8,029,216	(114,846)	-1.41%
Small General-Non-Demand	924,633	903,321	(21,312)	-2.30%	1,905,137	1,852,380	(52,757)	-2.77%
Small General-Demand	1,812,277	1,770,861	(41,416)	-2.29%	3,687,238	3,662,053	(25,185)	-0.68%
Large	2,814,074	2,713,131	(100,943)	-3.59%	5,528,009	5,251,232	(276,777)	-5.01%
Independent Power Producers	5,715	5,363	(352)	-6.16%	11,226	9,336	(1,890)	-16.83%
Private St. Lites	25,040	20,779	(4,261)	-17.02%	48,649	41,808	(6,841)	-14.06%
Sub-total	9,583,879	9,352,986	(230,893)	-2.41%	19,324,322	18,846,026	(478,295)	-2.48%
Government								
Small_Non Demand	175,520	166,289	(9,231)	-5.26%	362,674	344,384	(18,290)	-5.04%
Small-Demand	1,125,241	1,034,038	(91,204)	-8.11%	2,257,626	2,056,232	(201,394)	-8.92%
Large	787,202	734,059	(53,143)	-6.75%	1,614,120	1,499,312	(114,807)	-7.11%
Public St. Lites	440,964	364,348	(76,616)	-17.37%	837,529	764,813	(72,716)	-8.68%
Sub-total	2,528,928	2,298,734	(230,194)	-9.10%	5,071,948	4,664,742	(407,207)	-8.03%
Total-Civilian	12,112,807	11,651,720	(461,087)	-3.81%	24,396,270	23,510,768	(885,502)	-3.63%
USN	1,609,809	1,551,401	(58,408)	-3.63%	3,137,218	3,256,832	119,615	3.81%
Grand Total	13,722,616	13,203,120	(519,496)	-3.79%	27,533,488	26,767,601	(765,887)	-2.78%
% of Total Revenues	40.02%	38.93%			40.06%	39.35%		
Oil Revenues								
Residential	6,423,366	6,346,888	(76,477)	-1.19%	13,071,075	12,855,017	(216,058)	-1.65%
Small General-Non-Demand	1,045,949	1,035,339	(10,610)	-1.01%	2,155,100	2,082,272	(72,828)	-3.38%
Small General-Demand	2,343,295	2,321,105	(22,189)	-0.95%	4,767,640	4,731,231	(36,409)	-0.76%
Large	4,186,787	4,001,978	(184,809)	-4.41%	8,224,587	7,831,148	(393,439)	-4.78%
Independent Power Producers	7,316	5,336	(1,979)	-27.05%	14,371	9,870	(4,501)	-31.32%
Private St. Lites	6,794	5,242	(1,552)	-22.85%	13,200	10,414	(2,786)	-21.11%
Sub-total	14,013,505	13,715,889	(297,616)	-2.12%	28,245,974	27,519,952	(726,022)	-2.57%
Government								
Small_Non Demand	180,455	169,114	(11,341)	-6.28%	372,871	359,198	(13,673)	-3.67%
Small-Demand	1,291,759	1,196,704	(95,055)	-7.36%	2,591,718	2,443,853	(147,865)	-5.71%
Large	958,642	912,591	(46,051)	-4.80%	1,965,648	1,881,622	(84,025)	-4.27%
Public St. Lites	140,872	114,849	(26,022)	-18.47%	267,559	209,405	(58,154)	-21.74%
Sub-total	2,571,727	2,393,259	(178,468)	-6.94%	5,197,797	4,894,078	(303,718)	-5.84%
Total-Civilian	16,585,233	16,109,148	(476,085)	-2.87%	33,443,770	32,414,030	(1,029,740)	-3.08%
USN	3,982,360	4,601,397	619,037	15.54%	7,760,878	8,847,001	1,086,124	13.99%
Grand Total	20,567,593	20,710,545	142,953	0.70%	41,204,648	41,261,031	56,384	0.14%
% of Total Revenues	59.98%	61.07%			59.94%	60.65%		
Grand Total								
Residential	10,425,507	10,286,420	(139,086)	-1.33%	21,215,138	20,884,233	(330,905)	-1.56%
Small General-Non-Demand	1,970,581	1,938,660	(31,921)	-1.62%	4,060,238	3,934,653	(125,585)	-3.09%
Small General-Demand	4,155,572	4,091,967	(63,606)	-1.53%	8,454,878	8,393,284	(61,594)	-0.73%
Large	7,000,861	6,715,109	(285,752)	-4.08%	13,752,597	13,082,381	(670,216)	-4.87%
Independent Power Producers	13,030	10,699	(2,331)	-17.89%	25,596	19,206	(6,390)	-24.97%
Private St. Lites	31,834	26,021	(5,813)	-18.26%	61,849	52,222	(9,627)	-15.57%
Sub-total	23,597,385	23,068,875	(528,509)	-2.24%	47,570,295	46,365,978	(1,204,317)	-2.53%
Government								
Small_Non Demand	355,975	335,403	(20,571)	-5.78%	735,546	703,582	(31,963)	-4.35%
Small-Demand	2,417,000	2,230,742	(186,259)	-7.71%	4,849,344	4,500,085	(349,259)	-7.20%
Large	1,745,844	1,646,650	(99,194)	-5.68%	3,579,767	3,380,935	(198,833)	-5.55%
Public St. Lites	581,836	479,197	(102,639)	-17.64%	1,105,088	974,218	(130,870)	-11.84%
Sub-total	5,100,655	4,691,993	(408,663)	-8.01%	10,269,745	9,558,820	(710,925)	-6.92%
Total-Civilian	28,698,040	27,760,868	(937,172)	-3.27%	57,840,040	55,924,798	(1,915,242)	-3.31%
USN	5,592,169	6,152,798	560,629	10.03%	10,898,095	12,103,834	1,205,739	11.06%
Grand Total	34,290,209	33,913,666	(376,543)	-1.10%	68,738,135	68,028,632	(709,504)	-1.03%

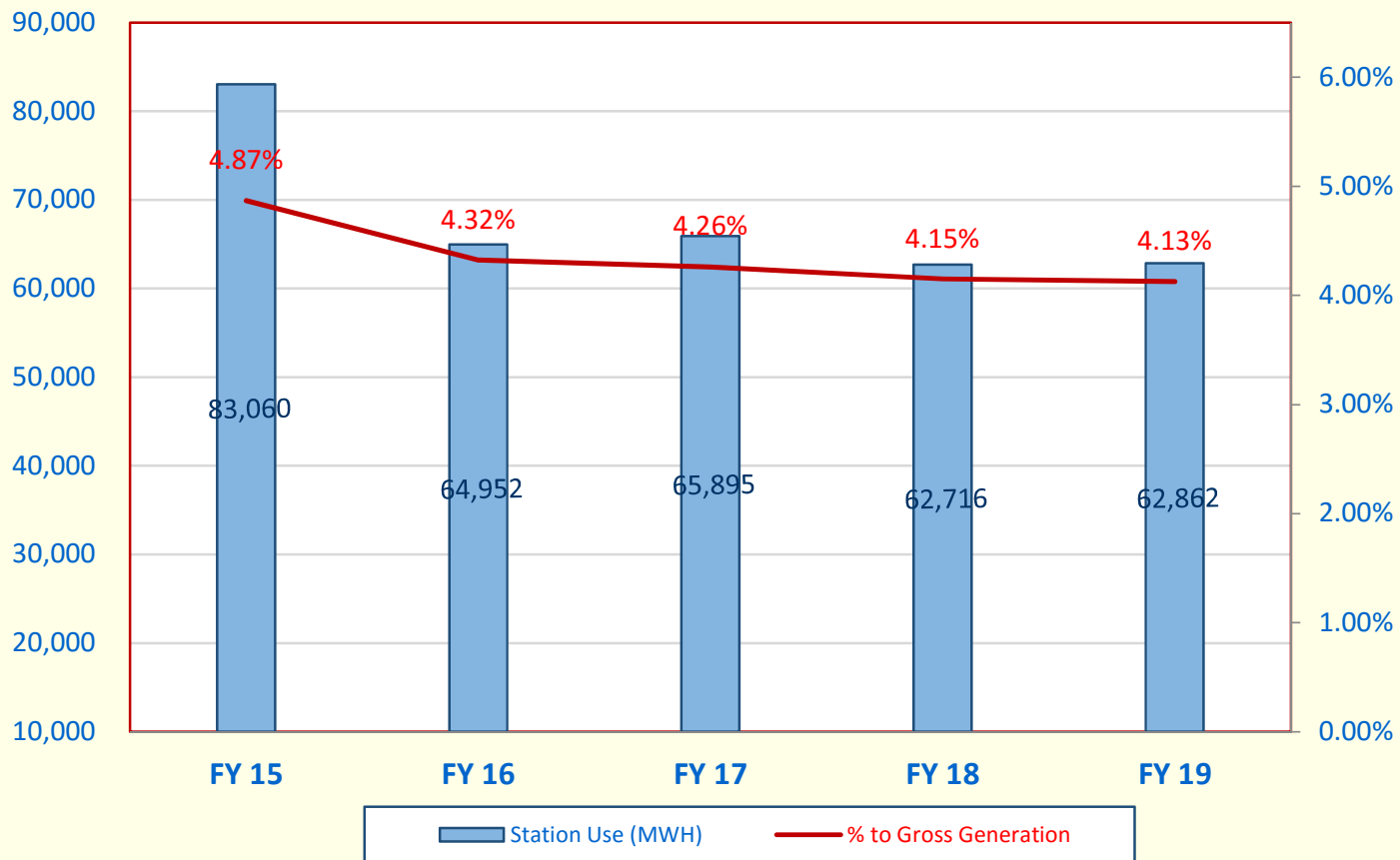
CCU Regular Meeting January 22, 2019 - GPA

YTD REVENUES - CURRENT YEAR VS PRIOR YEAR					MTD REVENUES - CURRENT YEAR VS PRIOR YEAR			
ACTUALS - 2 MONTHS ENDED NOVEMBER 30					ACTUALS - MONTH ENDED NOVEMBER 30			
	2018	2017	VARIANCE	% VARIANCE	2018	2017	VARIANCE	% VARIANCE
KWH								
Residential	83,343,168	85,068,852	(1,725,684)	-2.03%	41,148,899	43,386,853	(2,237,954)	-5.16%
Small General-Non-Demand	13,500,035	14,127,183	(627,148)	-4.44%	6,712,433	7,060,041	(347,608)	-4.92%
Small General-Demand	30,686,997	31,581,523	(894,526)	-2.83%	15,054,686	15,789,397	(734,710)	-4.65%
Large	51,012,819	52,850,803	(1,837,983)	-3.48%	26,074,017	26,267,661	(193,645)	-0.74%
Independent Power Producers	66,393	186,067	(119,674)	-64.32%	35,867	93,823	(57,956)	-61.77%
Private St. Lites	67,515	68,893	(1,378)	-2.00%	33,984	35,042	(1,057)	-3.02%
Sub-total	178,676,927	183,883,321	(5,206,394)	-2.83%	89,059,886	92,632,817	(3,572,931)	-3.86%
Government								
Small_Non Demand	2,328,794	2,506,744	(177,950)	-7.10%	1,096,422	1,255,131	(158,709)	-12.64%
Small-Demand	15,844,277	16,382,192	(537,916)	-3.28%	7,758,614	8,098,974	(340,360)	-4.20%
Large	12,345,635	12,968,877	(623,242)	-4.81%	5,989,384	6,550,623	(561,239)	-8.57%
Public St. Lites	1,357,640	1,481,413	(123,773)	-8.36%	744,605	668,464	76,141	11.39%
Sub-total	31,876,345	33,339,226	(1,462,880)	-4.39%	15,589,026	16,573,193	(984,167)	-5.94%
Total-Civilian	210,553,273	217,222,547	(6,669,275)	-3.07%	104,648,912	109,206,010	(4,557,098)	-4.17%
USN	51,472,863	52,083,303	(610,440)	-1.17%	24,888,490	26,837,883	(1,949,393)	-7.26%
Grand Total	262,026,136	269,305,850	(7,279,714)	-2.70%	129,537,402	136,043,893	(6,506,491)	-4.78%
Non-Oil Yield								
Residential	0.096339	0.096021	0.000319	0.33%	0.095738	0.095791	-0.000052	-0.05%
Small General-Non-Demand	0.137213	0.135846	0.001367	1.01%	0.134574	0.135717	-0.001143	-0.84%
Small General-Demand	0.119336	0.118451	0.000884	0.75%	0.117629	0.116611	0.001018	0.87%
Large	0.102939	0.102284	0.000656	0.64%	0.104055	0.103448	0.000607	0.59%
Independent Power Producers	0.140619	0.100133	0.040486	40.43%	0.149520	0.099929	0.049591	49.63%
Private St. Lites	0.619240	0.618512	0.000728	0.12%	0.611419	0.609171	0.002248	0.37%
Sub-total	0.105475	0.104933	0.000543	0.52%	0.105019	0.104752	0.000267	0.25%
Government								
Small_Non Demand	0.147881	0.148939	-0.001058	-0.71%	0.151665	0.149157	0.002508	1.68%
Small-Demand	0.129778	0.133235	-0.003457	-2.59%	0.133276	0.134625	-0.001349	-1.00%
Large	0.121445	0.125086	-0.003641	-2.91%	0.122560	0.125502	-0.002942	-2.34%
Public St. Lites	0.563340	0.466050	0.097290	20.88%	0.489317	0.509618	-0.020301	-3.98%
Sub-total	0.146339	0.146034	0.000305	0.21%	0.147458	0.147245	0.000214	0.15%
Total-Civilian	0.111662	0.111241	0.000421	0.38%	0.111341	0.111201	0.000140	0.13%
USN	0.063273	0.063137	0.000135	0.21%	0.062334	0.062724	-0.000390	-0.62%
Grand Total	0.102156	0.101938	0.000218	0.21%	0.101925	0.101638	0.000287	0.28%
Non-Oil Revenues								
Residential	8,029,216	8,168,372	(139,156)	-1.70%	3,939,532	4,156,049	(216,517)	-5.21%
Small General-Non-Demand	1,852,380	1,919,120	(66,740)	-3.48%	903,321	958,169	(54,848)	-5.72%
Small General-Demand	3,662,053	3,740,877	(78,823)	-2.11%	1,770,861	1,841,210	(70,349)	-3.82%
Large	5,251,232	5,405,766	(154,533)	-2.86%	2,713,131	2,717,346	(4,216)	-0.16%
Independent Power Producers	9,336	18,631	(9,295)	-49.89%	5,363	9,376	(4,013)	-42.80%
Private St. Lites	41,808	42,611	(803)	-1.88%	20,779	21,346	(568)	-2.66%
Sub-total	18,846,026	19,295,377	(449,351)	-2.33%	9,352,986	9,703,497	(350,511)	-3.61%
Government								
Small_Non Demand	344,384	373,352	(28,968)	-7.76%	166,289	187,211	(20,922)	-11.18%
Small-Demand	2,056,232	2,182,674	(126,442)	-5.79%	1,034,038	1,090,325	(56,287)	-5.16%
Large	1,499,312	1,622,220	(122,908)	-7.58%	734,059	822,117	(88,058)	-10.71%
Public St. Lites	764,813	690,413	74,400	10.78%	364,348	340,661	23,687	6.95%
Sub-total	4,664,742	4,868,659	(203,917)	-4.19%	2,298,734	2,440,314	(141,581)	-5.80%
Total-Civilian	23,510,768	24,164,036	(653,268)	-2.70%	11,651,720	12,143,811	(492,092)	-4.05%
USN	3,256,832	3,288,409	(31,577)	-0.96%	1,551,401	1,683,380	(131,979)	-7.84%
Grand Total	26,767,601	27,452,445	(684,845)	-2.49%	13,203,120	13,827,192	(624,071)	-4.51%
% of Total Revenues								
Oil Revenues								
Residential	12,855,017	10,014,135	2,840,882	28.37%	6,346,888	5,107,414	1,239,475	24.27%
Small General-Non-Demand	2,082,272	1,663,024	419,249	25.21%	1,035,339	831,094	204,245	24.58%
Small General-Demand	4,731,231	3,716,447	1,014,784	27.31%	2,321,105	1,858,087	463,018	24.92%
Large	7,831,148	6,189,427	1,641,721	26.52%	4,001,978	3,076,471	925,507	30.08%
Independent Power Producers	9,870	21,166	(11,296)	-53.37%	5,336	10,678	(5,341)	-50.02%
Private St. Lites	10,414	8,110	2,304	28.41%	5,242	4,125	1,117	27.07%
Sub-total	27,519,952	21,612,309	5,907,643	27.33%	13,715,889	10,887,869	2,828,021	25.97%
Government								
Small_Non Demand	359,198	295,089	64,109	21.73%	169,114	147,752	21,363	14.46%
Small-Demand	2,443,853	1,928,479	515,374	26.72%	1,196,704	953,395	243,309	25.52%
Large	1,881,622	1,508,214	373,408	24.76%	912,591	761,871	150,720	19.78%
Public St. Lites	209,405	174,389	35,016	20.08%	114,849	78,690	36,159	45.95%
Sub-total	4,894,078	3,906,171	987,908	25.29%	2,393,259	1,941,708	451,551	23.26%
Total-Civilian	32,414,030	25,518,479	6,895,551	27.02%	16,109,148	12,829,577	3,279,571	25.56%
USN	8,847,001	5,817,549	3,029,452	52.07%	4,601,397	2,570,685	2,030,712	78.99%
Grand Total	41,261,031	31,336,028	9,925,003	31.67%	20,710,545	15,400,262	5,310,284	34.48%
% of Total Revenues								
Grand Total								
Residential	20,884,233	18,182,507	2,701,726	14.86%	10,286,420	9,263,463	1,022,958	11.04%
Small General-Non-Demand	3,934,653	3,582,144	352,509	9.84%	1,938,660	1,789,263	149,397	8.35%
Small General-Demand	8,393,284	7,457,323	935,961	12.55%	4,091,967	3,699,298	392,669	10.61%
Large	13,082,381	11,595,193	1,487,188	12.83%	6,715,109	5,793,817	921,291	15.90%
Independent Power Producers	19,206	39,797	(20,591)	-51.74%	10,699	20,053	(9,354)	-46.65%
Private St. Lites	52,222	50,721	1,501	2.96%	26,021	25,471	549	2.16%
Sub-total	46,365,978	40,907,686	5,458,292	13.34%	23,068,875	20,591,366	2,477,510	12.03%
Government								
Small_Non Demand	703,582	668,441	35,141	5.26%	335,403	334,963	440	0.13%
Small-Demand	4,500,085	4,111,153	388,932	9.46%	2,230,742	2,043,720	187,022	9.15%
Large	3,380,935	3,130,434	250,501	8.00%	1,646,650	1,583,988	62,662	3.96%
Public St. Lites	974,218	864,802	109,417	12.65%	479,197	419,351	59,846	14.27%
Sub-total	9,558,820	8,774,829	783,991	8.93%	4,691,993	4,382,022	309,970	7.07%
Total-Civilian	55,924,798	49,682,515	6,242,283	12.56%	27,760,868	24,973,388	2,787,480	11.16%
USN	12,103,834	9,105,958	2,997,875	32.92%	6,152,798	4,254,065	1,898,732	44.63%
Grand Total	68,028,632	58,788,473	9,240,158	15.72%	33,913,666	29,227,453	4,686,212	16.03%

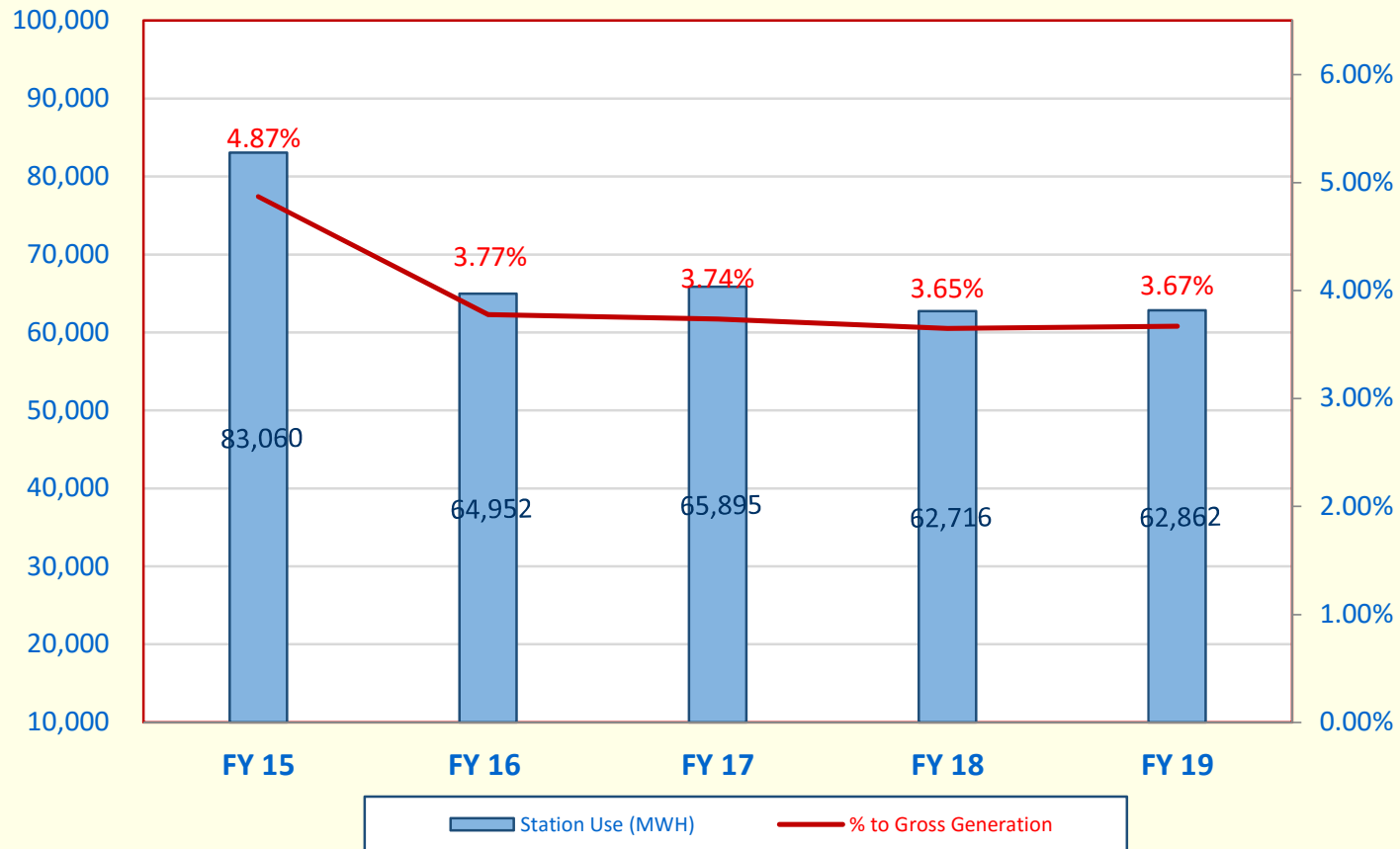


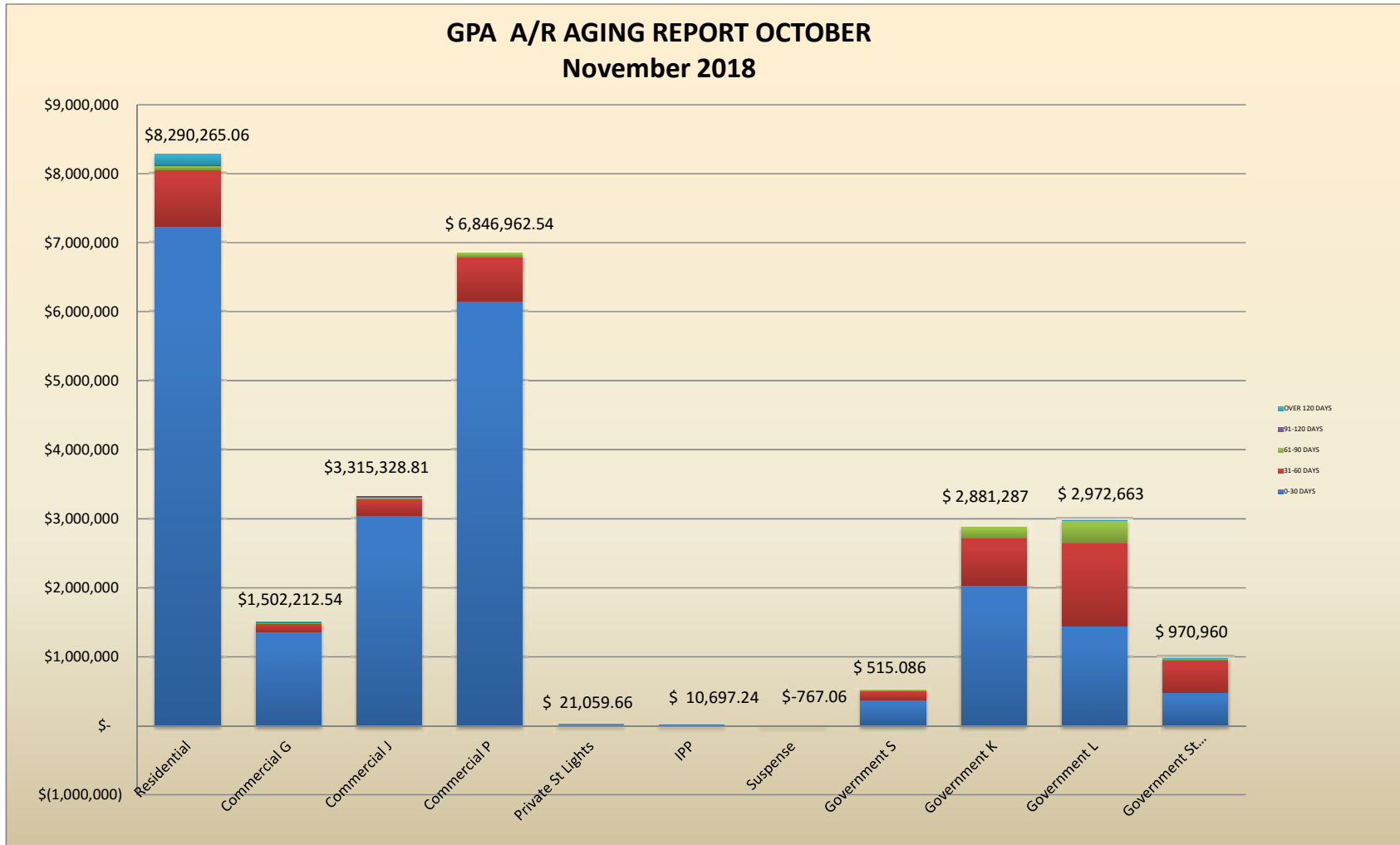


**GPA - Station Usage(MWH) Without Renewables and Aggreko
For the Last 5 Years Thru 11.30.18-Moving 12 Months**



**GPA - Station Usage(MWH) With Renewables
For the Last 5 Years Thru 11.30.18 -Moving 12 Months**







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

Issues for Decision

Resolution No. 2019-01:

Relative to Authorizing the Management of Guam Power Authority for the first (1st) year extension the Contract for the Management, Operation and Maintenance of GPA's Fuel Bulk Storage Facility with IP&E.

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

The 2-Year based period 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, 2019, with three optional one-year extension.

The objective is to continue and exercise the first (1st) year extension of the contract commencing in October 01, 2019, to ensure uninterrupted, reliable operation of the facility for the supply of fuel to the GPA plants.

Where is the location?

GPA Bulk Fuel Storage Facility.

How much will it cost?

The first (1st) year contract extension is estimated to cost about \$859,329.00 for the required services under the contract (Exhibit A).

When will it be completed?

The first (1st) year contract extension shall commence in October 1, 2019 and will expire in September 30, 2020.

What is its funding source?

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 RFP/BID responses:

IP&E Guam LLC has been awarded the contract through a multi-step IFB process.



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

RESOLUTION NO. 2019-01

AUTHORIZING THE MANAGEMENT OF THE GUAM POWER AUTHORITY TO PETITION THE PUBLIC UTILITIES COMMISSION FOR THE EXTENSION OF THE EXISTING CONTRACT FOR THE MANAGEMENT, OPERATION AND MAINTENANCE OF THE GUAM POWER AUTHORITY'S FUEL BULK STORAGE FACILITY WITH ISLA PETROLEUM & ENERGY, LLC. (IP&E)

WHEREAS, the 2-Year based period 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, 2019, with three optional one-year extension; and

WHEREAS, GPA negotiated and mutually agreed for the first (1st) year extension of the existing contract with IP&E for a term of one (1) year commencing in October 1, 2019; and

WHEREAS, the total requirement for the first (1st) year contract extension is estimated to cost of about \$859,329.00 (Exhibit A); and

WHEREAS, GPA has determined that the 3% increase in the contract fee is reasonable; and

WHEREAS, GPA is requesting for the approval of the first (1st) year extension of the contract.

NOW THEREFORE, BE IT RESOLVED, by the Consolidated Commission on Utilities, subject to the review and approval of the Guam Public Utilities Commission, as follows:

1. The Guam Power Authority is hereby authorized to enter into a contract extension for the Management, Operation, and Maintenance of the GPA Fuel Bulk Storage Facility with IP&E for a period of 1 year commencing October 01, 2019.
2. The Guam Power Authority is hereby authorized to execute an agreement for the extension of the contract.
3. The General Manager of the Guam Power Authority is hereby authorized an increase in obligating authority to the annual value of the contract over \$750,000.00 and execute such agreements and documents necessary for a contract extension with **IP&E**.

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

DULY and REGULARLY ADOPTED this 22nd day of January 2019.

Certified by:

Attested by:

JOSEPH T. DUENAS
CHAIRMAN

MICHAEL T. LIMTIACO
SECRETARY

SECRETARY'S CERTIFICATE

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

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

Ayes: _____

Nays: _____

Absent: _____

Abstain: _____



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

EXHIBIT A**GPA-014-17: GPA BULK FUEL FARM MANAGEMENT, OPERATION, AND MAINTENANCE CONTRACT**

IP &E Contract Price	2 YEAR BASE PERIOD (MANDATORY)			3-YEAR EXTENSION OPTION (RENEWABLE ANNUALLY)				2 YEAR BASE + 3 YEAR EXTENSION OPTION
	1st Year Oct2017-Sep2018	2nd Year Oct2018-Sep2019	Total	1st Yr Extn Oct2019-Sep2020	2nd Yr Extn Oct2020-Sep2021	3rd Yr Extn Oct2021-Sep2022	Total	Over-all
Item 1	\$ 516,560.00	\$ 532,056.80	\$ 1,048,616.80	\$ 548,018.50	\$ 564,459.06	\$ 581,392.83	\$ 1,693,870.39	\$ 2,742,487.19
Item 2	\$ 144,540.00	\$ 148,876.20	\$ 293,416.20	\$ 153,342.49	\$ 157,942.76	\$ 162,681.04	\$ 473,966.29	\$ 767,382.49
Item 3	\$ 35,000.00	\$ 36,050.00	\$ 71,050.00	\$ 37,131.50	\$ 38,245.45	\$ 39,392.81	\$ 114,769.76	\$ 185,819.76
Item 4	\$ 20,400.00	\$ 21,012.00	\$ 41,412.00	\$ 21,642.36	\$ 22,291.63	\$ 22,960.38	\$ 66,894.37	\$ 108,306.37
Item 5	\$ 2,500.00	\$ 2,575.00	\$ 5,075.00	\$ 2,652.25	\$ 2,731.82	\$ 2,813.77	\$ 8,197.84	\$ 13,272.84
Item 6	\$ 91,000.00	\$ 93,730.00	\$ 184,730.00	\$ 96,541.90	\$ 99,438.16	\$ 102,421.30	\$ 298,401.36	\$ 483,131.36
TOTAL (Items 1 thru 6)	\$ 810,000.00	\$ 834,300.00	\$ 1,644,300.00	\$ 859,329.00	\$ 885,108.88	\$ 911,662.13	\$ 2,656,100.01	\$ 4,300,400.01
Variance vs. Previous year	3%			3%	3%	3%		
Contract Status	Completed	In Progress		For Approval				

Legend: Bid Price Proposal Parameters for Mandatory Items

Remarks:

Item 1	Management and Administration Fees (Include all expenses for staffing, office maintenance, expenses for utilities and communications, management fees and administration fees)	Fixed Cost
Item 2	Security Contractor	Fixed Cost
Item 3	Spill Response Company Membership Fees	Fixed Cost
Item 4	Insurance Fees (Volume I - 5.41A)	Fixed Cost
Item 5	Inventory - Environmental / Oil Spill Equipment *Oil Spill Response & Environmental Compliance (OPA 90, SPCC and FRP, etc.)	Fixed Cost
Item 6	Operation and Maintenance Budget	Reimbursible Cost

EXHIBIT A

GPA-014-17: GPA BULK FUEL FARM MANAGEMENT, OPERATION, AND MAINTENANCE CONTRACT

IP &E Contract Price	2 YEAR BASE PERIOD (MANDATORY)			3-YEAR EXTENSION OPTION (RENEWABLE ANNUALLY)				2 YEAR BASE + 3 YEAR EXTENSION OPTION
	1st Year Oct2017-Sep2018	2nd Year Oct2018-Sep2019	Total	1st Yr Extn Oct2019-Sep2020	2nd Yr Extn Oct2020-Sep2021	3rd Yr Extn Oct2021-Sep2022	Total	Over-all
Item 1	\$ 516,560.00	\$ 532,056.80	\$ 1,048,616.80	\$ 548,018.50	\$ 564,459.06	\$ 581,392.83	\$ 1,693,870.39	\$ 2,742,487.19
Item 2	\$ 144,540.00	\$ 148,876.20	\$ 293,416.20	\$ 153,342.49	\$ 157,942.76	\$ 162,681.04	\$ 473,966.29	\$ 767,382.49
Item 3	\$ 35,000.00	\$ 36,050.00	\$ 71,050.00	\$ 37,131.50	\$ 38,245.45	\$ 39,392.81	\$ 114,769.76	\$ 185,819.76
Item 4	\$ 20,400.00	\$ 21,012.00	\$ 41,412.00	\$ 21,642.36	\$ 22,291.63	\$ 22,960.38	\$ 66,894.37	\$ 108,306.37
Item 5	\$ 2,500.00	\$ 2,575.00	\$ 5,075.00	\$ 2,652.25	\$ 2,731.82	\$ 2,813.77	\$ 8,197.84	\$ 13,272.84
Item 6	\$ 91,000.00	\$ 93,730.00	\$ 184,730.00	\$ 96,541.90	\$ 99,438.16	\$ 102,421.30	\$ 298,401.36	\$ 483,131.36
TOTAL (Items 1 thru 6)	\$ 810,000.00	\$ 834,300.00	\$ 1,644,300.00	\$ 859,329.00	\$ 885,108.88	\$ 911,662.13	\$ 2,656,100.01	\$ 4,300,400.01
Variance vs. Previous year		3%		3%	3%	3%		
Contract Status	Completed	In Progress		For Approval				
Cumulative Cost	\$ 810,000.00	\$ 1,644,300.00		\$ 2,503,629.00	\$ 3,388,737.88	\$ 4,300,400.01		

Legend: Bid Price Proposal Parameters for Mandatory Items

		Remarks:
Item 1	Management and Administration Fees (Include all expenses for staffing, office maintenance, expenses for utilities and communications, management fees and administration fees)	Fixed Cost
Item 2	Security Contractor	Fixed Cost
Item 3	Spill Response Company Membership Fees	Fixed Cost
Item 4	Insurance Fees (Volume I - 5.41A)	Fixed Cost
Item 5	Inventory - Environmental / Oil Spill Equipment Oil Spill Response & Environmental Compliance (OPA 90, SPCC and FRP, etc.)	Fixed Cost
Item 6	Operation and Maintenance Budget	Reimbursible Cost

EXHIBIT B

Multi-Step IFB GPA-014-17
BID PRICE PROPOSAL ANALYSIS

BID PRICE - IP & E

Bid Price Proposal*	Base Period- Year 1	Base Period- Year 2	1st Year Extn Option	2nd Year Extn Option	3rd Year Extn Option	2 YEAR BASE PERIOD (MANDATORY)	2 YEAR BASE + 3 YEAR EXTENSION OPTION
Item 1	\$ 516,560.00	\$ 532,056.80	\$ 548,018.50	\$ 564,459.06	\$ 581,392.83	\$ 1,048,616.80	\$ 2,742,487.19
Item 2	\$ 144,540.00	\$ 148,876.20	\$ 153,342.49	\$ 157,942.76	\$ 162,681.04	\$ 293,416.20	\$ 767,382.49
Item 3	\$ 35,000.00	\$ 36,050.00	\$ 37,131.50	\$ 38,245.45	\$ 39,392.81	\$ 71,050.00	\$ 185,819.76
Item 4	\$ 20,400.00	\$ 21,012.00	\$ 21,642.36	\$ 22,291.63	\$ 22,960.38	\$ 41,412.00	\$ 108,306.37
Item 5	\$ 2,500.00	\$ 2,575.00	\$ 2,652.25	\$ 2,731.82	\$ 2,813.77	\$ 5,075.00	\$ 13,272.84
Item 6	\$ 91,000.00	\$ 93,730.00	\$ 96,541.90	\$ 99,438.16	\$ 102,421.30	\$ 184,730.00	\$ 483,131.36
TOTAL	\$ 810,000.00	\$ 834,300.00	\$ 859,329.00	\$ 885,108.88	\$ 911,662.13	\$ 1,644,300.00	\$ 4,300,400.01
Escalation/(Descalation)		3%	3%	3%	3%		

BID PRICE- TRISTAR

Bid Price Proposal*	Base Period- Year 1	Base Period- Year 2	1st Year Extn Option	2nd Year Extn Option	3rd Year Extn Option	2 YEAR BASE PERIOD (MANDATORY)	2 YEAR BASE PERIOD + 3 YEAR EXTENSION OPTION
Item 1	\$ 514,322.92	\$ 540,039.06	\$ 567,041.02	\$ 595,393.07	\$ 625,162.72	\$ 1,054,361.98	\$ 2,841,958.79
Item 2	\$ 156,128.75	\$ 163,935.19	\$ 172,131.95	\$ 180,738.54	\$ 189,775.47	\$ 320,063.94	\$ 862,709.90
Item 3	\$ 36,458.33	\$ 38,281.25	\$ 40,195.31	\$ 42,205.08	\$ 44,315.33	\$ 74,739.58	\$ 201,455.30
Item 4	\$ 16,515.68	\$ 17,341.47	\$ 18,208.54	\$ 19,118.97	\$ 20,074.91	\$ 33,857.15	\$ 91,259.57
Item 5	\$ 15,191.88	\$ 15,951.47	\$ 16,749.04	\$ 17,586.49	\$ 18,465.82	\$ 31,143.35	\$ 83,944.70
Item 6	\$ 154,583.33	\$ 159,988.06	\$ 184,101.53	\$ 191,391.97	\$ 219,304.04	\$ 314,571.39	\$ 909,368.93
TOTAL	\$ 893,200.89	\$ 935,536.50	\$ 998,427.39	\$ 1,046,434.12	\$ 1,117,098.29	\$ 1,828,737.39	\$ 4,990,697.19
Escalation/(Descalation)		5%	7%	5%	7%		

* Reference: GPA-014-17 Bid Abstract



Attention:

December 13, 2018

Guam Power Authority
PO Box 2977
Hagatna, Guam 96932

John Cruz, Jennifer Sablan, and Albert Florencio
Strategic Planning and Operations Research Division

Reference: GPA-014-17 Management, Operation and Maintenance of the Guam Power Authority Fuel Bulk Storage Facility

Mr. Cruz, Mrs. Sablan, Mr. Florencio,

In response to the Guam Power Authority's email *Subject: GPA-014-17 (GPA Fuel Farm Contract)*, I am pleased to confirm that IP&E is agreeable to exercise the 1st Year Contract Extension Option for the Management, Operation and Maintenance of the Guam Power Authority Fuel Bulk Storage Facility as per our proposal submitted on January 25th, 2017.

Based on the positive feedback received from Guam Power Authority personnel who have visited the facility, various 3rd party contractors familiar with the facility pre and post IP&E Management, the United States Coast Guard, and the Environmental Protection Agency, I am confident that the past 14 months of our Management has been beneficial to GPA.

I would like to continue to focus on improvements which ensure the long term viability, safe operation, and regulatory compliance of the GPA storage facility. We have raised concerns over the course of the initial term of the contract, which I hope GPA will take serious consideration in ensuring these matters are prioritized.

Kindly advise the Guam Power Authority's intention for the 1st Year Contract Extension Option so IP&E can plan accordingly.

Regards,

A handwritten signature in black ink, appearing to read "Bamba", enclosed within a circular scribble.

Brian Bamba
Managing Director
IP&E Holdings, LLC.

IP&E Holdings, LLC.
dba: IP&E Guam
Suite 100, 643 Chalan San Antonio
Tamuning, Guam 96913-3644
Tel: 671-647-0000 | Fax: 671-649-4353
Email: corporate@ipehq.com



Shell Licensee



GUAM POWER AUTHORITY
ATURIDÁT ILEKTRESEDÁT GUAHAN
P.O. BOX 2977, HÅGATÑA, GUAM 96932-2977

December 21, 2018

IP&E Holdings, LLC
Suite 100, 643 Chalan San Antonio
Tamuning, Guam 96931-3644
Fax: 671-649-4353

ATTN: Mr. Brian Bamba- Managing Director

SUBJECT : Notice of Intent – Extension of Contract
Re: Management, Operation, and Maintenance of the GPA Bulk Fuel
Storage Facility (GPA-14-17)

Dear Mr. Bamba:

The 2-year base term of the contract for the Management, Operation, and Maintenance of the GPA Bulk Fuel Storage Facility under GPA-014-17 will expire on September 30, 2019. This contract does include three optional one-year extensions with mutual agreement of both parties.

Reference to your December 13, 2018 letter and pursuant to Section 5.2 of the contract, GPA wishes to exercise the contract extension option.

With your concurrence, the first (1st) year extension of the Contract under GPA-014-17 shall commence in October 01, 2019 and shall expire on September 30, 2020 at the same contract price schedule for the first (1st) year extension. All other terms and conditions shall remain unchanged.

GPA appreciates the competence and delivery of services you have provided in improving the facility.

Extension of the contract shall be subject to the approval of the Consolidated Commission on Utilities (CCU) and the Public Utilities Commission (PUC).

Thank you.

Sincerely,


JOHN M. BENAVENTE, P.E.
General Manager

CONCURRED by (IP&E):

BRIAN BAMBA
Managing Director

Date

**AMENDMENT NO.1
TO THE GPA BULK FUEL STORAGE FACILITY CONTRACT**

This **FIRST AMENDMENT** to the **CONTRACT** for the Management, Operation, and Maintenance of the GPA Bulk Fuel Storage Facility, reference GPA-014-17 is made by and between the **GUAM POWER AUTHORITY** ("GPA") and **IP&E** ("Contractor").

RECITALS

WHEREAS, GPA and Contractor entered into a certain contract for the Management, Operation, and Maintenance of the GPA Bulk Fuel Storage Facility, reference GPA-014-17, effective October 1, 2017 (the "Contract"); and

WHEREAS, the Contract provides in Section 5 thereof for a two (2) year term with the option of GPA to extend for three (3) additional terms of one (1) year each subject to the mutual agreement of the parties; and

WHEREAS, the initial two (2) year term of the Contract will expire on September 30, 2019; and

WHEREAS, GPA desires to exercise its contract extension option; and

WHEREAS, GPA and the Contractor have mutually agreed on the terms of the first (1st) year extension, for a period of one (1) year commencing on October 1, 2019 and terminating on September 30, 2020.

WITNESSETH

That in consideration of the foregoing and of other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, GPA and the Contractor agree as follows:

1. **EXTENSION OF THE TERM.** The term of the Contract, is hereby extended for a period of one (1) year commencing on October 1, 2019 and terminating on September 30, 2020.

2. **NO OTHER MODIFICATION.** Except as expressly amended hereby, all other terms and conditions of the Contract shall remain unchanged.

3. **EFFECTIVE DATE.** This First Amendment shall be effective as of October 1, 2019 (the "Effective Date").

IN WITNESS HEREOF, the parties hereto have caused this Amendment to be executed this ____th day of _____.

GUAM POWER AUTHORITY

IP&E Guam

By: _____
Name: **JOHN M. BENAVENTE, P.E.**
Its: **GENERAL MANAGER**

By: _____
Name: **BRIAN BAMBA**
Its: **MANAGING DIRECTOR**

APPROVED AS TO LEGAL FORM AND SUFFICIENCY:

By: _____
Name: **GRAHAM BOTHA**
Its: **GPA LEGAL COUNSEL**



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

Issues for Decision

Resolution No. 2019-02:

Relative to Authorize Expenditure for the Construction of the Tumon Bay Lateral Conversion Project

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

The Tumon Bay Lateral Underground Conversion Project is designed to convert the existing overhead laterals along San Vitores Road to an underground system. The project will also upgrade the system to address voltage delivery issues. This project will provide an underground system that will remain intact in the event of a typhoon, consequently greatly minimizing restoration efforts for this area. The project was originally planned to install a primary and secondary underground system along 11 sites along San Vitores Road in Tumon. Based on available funding, the project will convert five sites (Fiesta Hotel Lateral, Dai Ichii Condo Site, Behind Pacific Bay Hotel, Behind DFS, and the Lotte and Nikko Hotel Areas).

The primary line will be placed underground and residential and commercial customers within the project area will be converted to an underground service through pad-mounted transformers.

Where is it at?

Tumon

How much will it cost?

Total Cost for the **five sites** \$5,280,033

Tumon Lateral - Job Order 100114	Estimated Cost	Core Tech Bid Cost
Mobilization/Demobilization		\$ 1,106,341.00
Permits		\$ 83,573.00
Site 1, Fiesta Hotel	\$ 371,367.00	\$ 403,149.00
Site 2, Dai Ichii	\$ 618,945.00	\$ 326,313.00
Site 3, Cushing Zoo	\$ 200,538.18	\$ 553,748.00
Site 4, Behind Bank of Guam	\$ 800,502.20	\$ 672,179.00
Site 5, Behind San Vitores church	\$ 470,398.20	\$ 501,161.00
Site 6, Behind Acanta Mall	\$ 264,083.20	\$ 201,055.00
Site 7, Behind Pacific Bay Hotel	\$ 577,682.00	\$ 341,829.00
Site 8, Behind Tumon Sands	\$ 1,171,869.20	\$ 1,029,309.00
Site 9, Behind Park Arcade Building	\$ 379,619.60	\$ 527,479.00
Site 10, Behind DFS	\$ 2,989,916.98	\$ 1,530,017.00
Site 11, Nikko	\$ 1,605,130.70	\$ 1,488,811.00
TOTAL	\$ 9,450,052.26	\$ 8,764,964.00
Total Site for Sites 1,2,7,10, 11 and Mobilization and Permits ONLY	\$5,280,033.00	

When will it be completed?

Time delivery to complete work is 12 months upon issuance of NTP.

What is its funding source?

GPA 2010 Revenue-Bonds

Current Budget:	\$2,552,000
Reallocated Bond Funds:	<u>\$2,800,000</u>
	\$5,352,000

The RFP/BID responses:

Core Tech and Kinden were the only bidders.

See attached Bid Abstract.



CONSOLIDATED COMMISSION ON UTILITIES

Guam Power Authority | Guam Waterworks Authority

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

Resolution No. 2019-02
Authorizing Expenditure for the Construction of the
Tumon Bay Lateral Conversion Project

WHEREAS, GPA seeks to mitigate against future damages associated with typhoons on existing overhead distribution lines; and

WHEREAS, the construction of the Tumon Bay Lateral Conversion Project will provide an underground system that will remain intact in the event of a typhoon, minimizing restoration efforts in the Tumon Bay area, thus improving service reliability; and

WHEREAS, Tumon is the center of Guam's tourism industry and thus, improving service reliability to Tumon will greatly benefit the people of Guam; and

WHEREAS, GPA has secured Bond funding necessary for the Tumon Bay Lateral Conversion Project; and

WHEREAS, GPA has obtained PUC approval to proceed with the Tumon Bay Lateral Conversion Project through PUC Order in Docket 10-01; and

WHEREAS, GPA has justified the project by conducting a cost-benefits analysis which show that the benefits gained by the completion of the project outweigh the expenditures; and

WHEREAS, GPA seeks construction services for the Tumon Bay Lateral Conversion Project involving the conversion of existing overhead lines to underground in order to significantly increase system reliability in a cost-effective manner; and

WHEREAS, GPA's Procurement office has provided adequate public announcement for the required services for Tumon Bay Lateral Conversion Project through Bid Invitation No. GPA-061-18 providing the project specifications and information required of each offeror; and

Whereas, Kinden Corporation and CoreTech International submitted bids for GPA's consideration; and

30 **WHEREAS**, GPA's Evaluation Committee has determined CoreTech
31 International to be the lowest responsive bidder at \$8,764,964; and

32 **WHEREAS**, GPA has secured \$5.8M for the Tumon Bay Lateral Conversion
33 Project through 2010 Revenue Bonds; and

34 **WHEREAS**, CoreTech International has submitted the necessary information and
35 interest in providing such service; and

36 **WHEREAS**, the award of this Purchase Order to CoreTech International has
37 been made pursuant to a written finding by the Procurement Officer that CoreTech
38 International's offer meets the requirements of GPA's specifications and has been
39 determined to be fair and reasonable.

40
41 **NOW, THEREFORE, BE IT RESOLVED**, by the Consolidated Commission
42 on Utilities as follows:

- 43
44 1. After careful consideration, the Consolidated Commission on Utilities finds the
45 procurement of the required services for the Tumon Bay Lateral Conversion Project
46 to be reasonable and prudent.
- 47 2. The General Manager of GPA is hereby authorized an increase in obligating authority
48 from \$750,000 to \$5,280,033 for the purpose of securing construction services for the
49 Tumon Bay Lateral Conversion Project with CoreTech International.

50
51 **RESOLVED**, that the Chairman of the Commission certifies and the Board
52 Secretary attests the adoption of this Resolution.

53
54 **DULY AND REGULARLY ADOPTED AND APPROVED THIS 22ND DAY**
55 **OF JANUARY, 2019.**

56 Certified by:

Attested by:

57
58
59 _____
60 **JOSEPH T. DUENAS**
61 **CHAIRMAN**

MICHAEL T. LIMTIACO
SECRETARY

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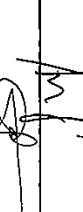


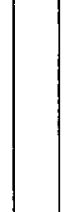
SECRETARY’S CERTIFICATE

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

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

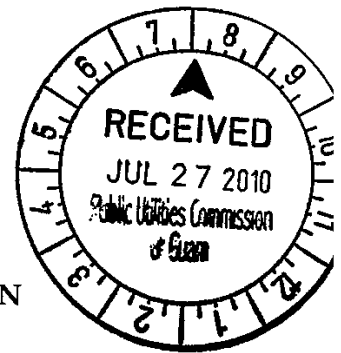
Ayes: _____
Nays: _____
Absent: _____
Abstain: _____

NAMES OF PERSONS PRESENT AT THE BID OPENING AND WHOM THEY REPRESENT

PRINT NAME:	COMPANY NAME:	SIGNATURE:	DATE:
1 Vincent Simon	GPA		10/31/2018
2 MARIO ACARDO	KUDON Corp.		10/31/2018
3 AL MARRAS	KUDON Corp.		10/31/2018
4 ALON ELAMPAZO	CORE TECH		10/31/2018
5 RAHIM JAVELOSA	CORE TECH		10/31/18
6 GENDY DAYAG	CORE TECH		10/31/18
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NAMES OF PERSONS PRESENT AT THE BID OPENING AND WHOM THEY REPRESENT

PRINT NAME:	COMPANY NAME:	SIGNATURE:	DATE:
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BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

IN THE MATTER OF:)
Guam Power Authority's Petition for) GPA Docket 10-01
Contract Review Approval of 2010)
Bond Financed Projects)
_____)

ORDER

This matter comes before the Guam Public Utilities Commission [PUC] upon Guam Power Authority's [GPA] Petition for PUC Review and Approval of certain 2010 Bond financed projects.¹ Previously, on June 3, 2010, the PUC approved the 2010 GPA Revenue Bond and Subordinate Bond issuance.² At that time, the PUC was advised by GPA as to specific projects for which it would seek PUC approval; the projects for which bond funding was sought were set forth in its Supplemental Filing.³

PUC Counsel issued his report herein on July 15, 2010.⁴ Counsel recommends that the PUC approve the twelve projects which GPA seeks to fund from bond proceeds under the 2010 Revenue Bond issue.⁵ For each of the twelve projects which it seeks to finance through Revenue Bonds, GPA has provided detailed project descriptions, justifications, consideration of alternatives and cost-benefit analyses.⁶ In each case, GPA's projections showed that the benefits of the project outweigh the costs. Overall, projects such as Substation Upgrades, Pole Hardening, Fire Protection Upgrades, and Distribution Projects should improve the reliability of the power system and protect it against potential harm and damage. PUC finds that each of the projects proposed are prudent and in the interest of rate payers.

¹ GPA Petition for Contract Review and Approval of 2010 Bond Projects, GPA Docket 10-01, filed July 12, 2010.

² PUC Order Approving Revenue and Subordinate Revenue Bonds and Order Approving Long Term Debt, GPA Docket 10-01, issued June 3, 2010.

³ GPA Supplemental Filing, GPA Docket 10-01, filed May 20, 2010.

⁴ PUC Counsel Report, GPA Docket 10-02, issued July 15, 2010.

⁵ Id. at p. 4.

⁶ See Project Descriptions attached to GPA's Petition for Contract Review of Approval of 2010 Bond Projects.

Order
 Contract Review of GPA 2010 Bond Projects
 GPA Docket 10-01
 July 27, 2010

Upon consideration of the record herein, the Petition of GPA for approval of 2010 Bond Projects, the PUC Legal Counsel Report, and for good cause shown, upon motion duly made seconded and carried by the affirmative vote of the undersigned Commissioners, the Commission hereby ORDERS that:

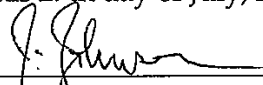
1. The GPA Petition for Review and Approval of 12 2010 bond projects is hereby approved.
2. The twelve 2010 bond projects for which GPA seeks to expend bond funds are reasonable, prudent and necessary.
3. Approval is granted for the following projects, and in the following amounts:

Projects	Total Cost
1. Agana Substation Capacity Upgrade	\$1,250,000
2. Agat Village Pole Hardening & Hybrid	\$3,800,000
3. Ambient Air Quality Monitoring	\$1,900,000
4. Dededo Substation Upgrade	\$4,655,000
5. Distribution System Performance Improvements	\$1,000,000
6. Fire Protection Upgrades at Power Plants	\$3,880,000
7. Line Reclosing and Load Profiling	\$1,200,000
8. P003 Underground Extension to Port Authority	\$4,775,650
9. System Protection Relaying Improvement	\$1,893,000
10. Tumon Bay Lateral Conversion	\$6,582,838
11. Tumon Substation Upgrade	\$1,530,000
12. Underground Fuel Pipeline Conversion	\$2,150,000
GRAND TOTAL	\$34,616,488

4. GPA is ordered to pay the Commission's regulatory fees and expenses, including, without limitation, consulting and counsel fees and the fees and expenses of conducting the hearing proceedings. Assessment of PUC's regulatory fees and expenses is authorized pursuant to 12 GCA §§12002(b) and 12024(b), and Rule 40 of the Rules of Practice and Procedure before the Public Utilities Commission.

Order
Contract Review of GPA 2010 Bond Projects
GPA Docket 10-01
July 27, 2010

Dated this 27th day of July, 2010.




Jeffrey C. Johnson
Chairman




Joseph M. McDonald
Commissioner

Rowena E. Perez
Commissioner



Filomena M. Cantoria
Commissioner



Michael A. Pangelinan
Commissioner

RESOLUTION 2019-02

UNDERGROUND PROJECT FOR TUMON LATERALS

JANUARY 2019

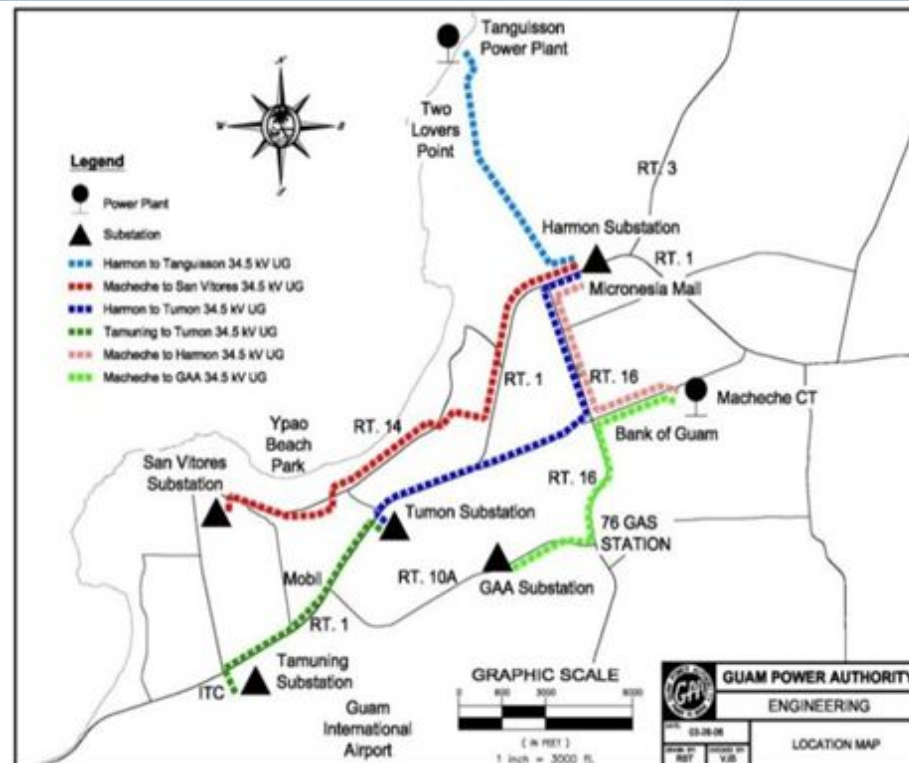


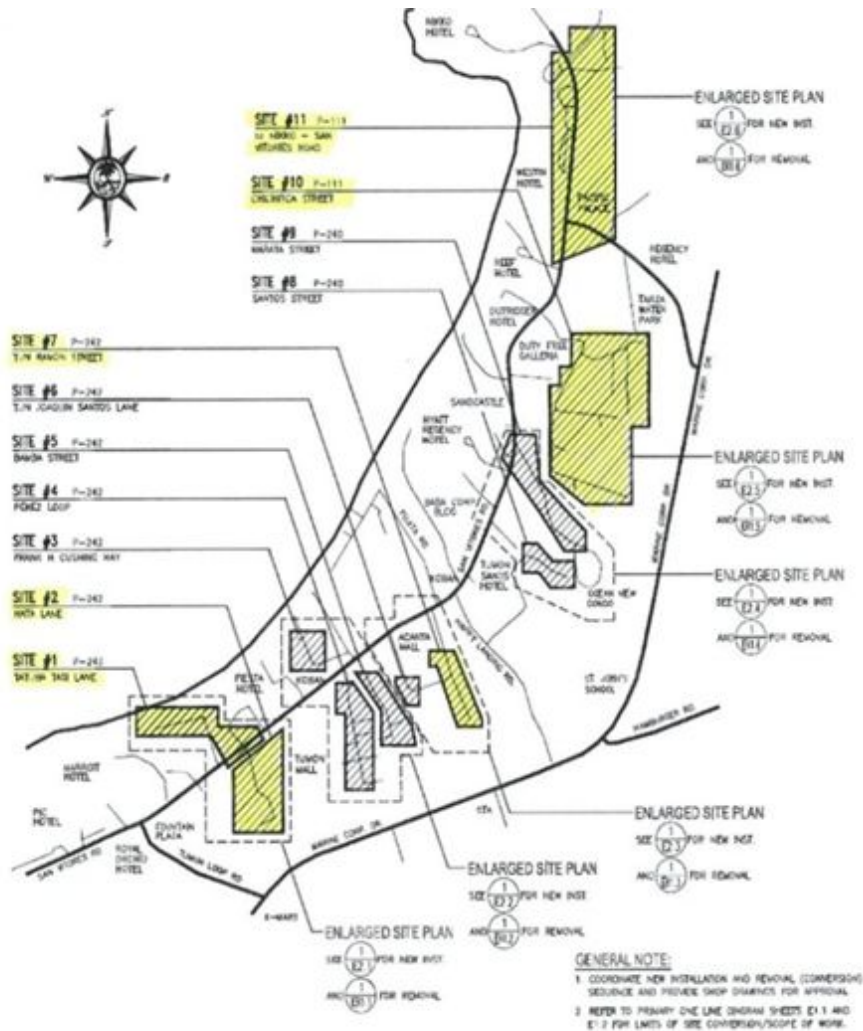
T&D Investment and Strategies

GPA continues to invest in system reliability projects to stabilize revenues and enhance system efficiency

- GPA has placed vital power transmission lines underground that connect system to key components of Guam's economy
- 60% of system load is served through new underground infrastructure
- GPA continues to harden its overhead system by replacing wood poles with concrete (over 87% hardened to date)
- GPA continues its village underground hybrid system which places secondary lines underground
- Resolution 2019-02 allows for the continuation of underground projects in the Tumon area. Main line in red is already underground. This project is to underground the high load density laterals

System Hardening

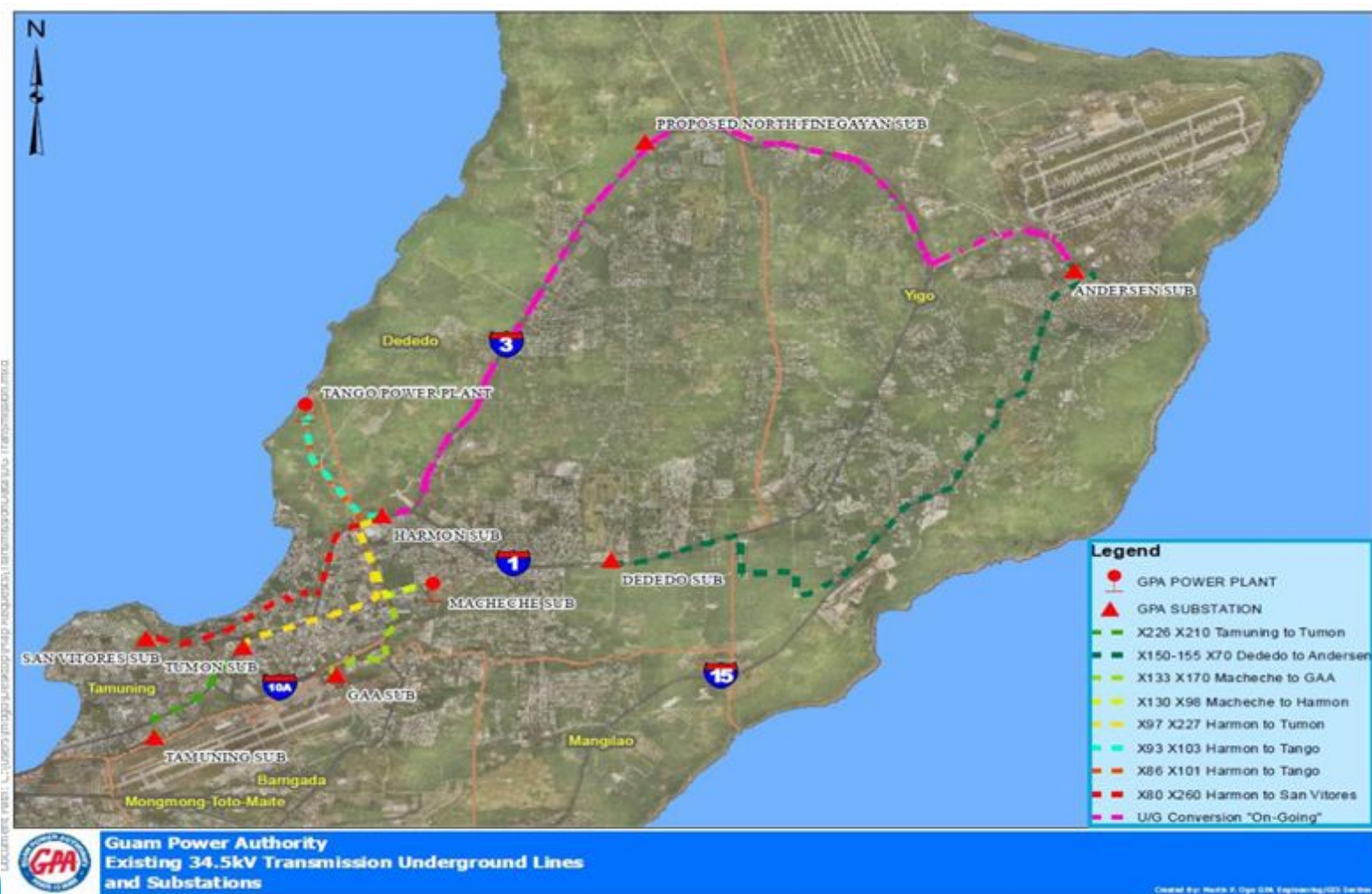




Cost of the Five Sites

Tumon Lateral - Job Order 100114	Connected Load KVA	Load Share	Core Tech		
			Bid Cost	Cost Share	Load Share/Cost Share
Mobilization/Demobilization			\$ 1,106,341.00		
Permits			\$ 83,573.00		
Site 1, Fiesta Hotel	2,800	13.70%	\$ 403,149.00	4.60%	2.98
Site 2, Dai Ichii	1,000	4.89%	\$ 326,313.00	3.72%	1.31
Site 3, Cushing Zoo	1,000	4.89%	\$ 553,748.00	6.32%	0.77
Site 4, Behind Bank of Guam	392	1.92%	\$ 672,179.00	7.67%	0.25
Site 5, Behind San Vitores church	442	2.16%	\$ 501,161.00	5.72%	0.38
Site 6, Behind Acanta Mall	167	0.82%	\$ 201,055.00	2.29%	0.36
Site 7, Behind Pacific Bay Hotel	1,850	9.05%	\$ 341,829.00	3.90%	2.32
Site 8, Behind Tumon Sands	650	3.18%	\$ 1,029,309.00	11.74%	0.27
Site 9, Behind Park Arcade Building	734	3.59%	\$ 527,479.00	6.02%	0.60
Site 10, Behind DFS	4,400	21.53%	\$ 1,530,017.00	17.46%	1.23
Site 11, Nikko	7,000	34.25%	\$ 1,488,811.00	16.99%	2.02
Total:	20,435	100.00%	\$ 8,764,964.00	100.00%	
			Cost		
1. Award Site 1, 2, 7, 10 and 11			\$ 5,280,033.00		

Underground Transmission System (North)





Guam Power Authority
New Generation Infrastructure Lot 5010-1New&5042-R1&5042-1

Document Path: C:\Users\muna\Desktop\GIS\DATA REQUEST\NEW GENERATION PROJECT LAND ACQUISITION 2017\GIS\AXD\New Generation Infrastructure Lot 5010-1New&5042-R1&5042-1.mxd

MAP CREATED BY:
Timothy C.S. Muna
GPA Engineering GIS Section

DISCLAIMER:
This information is provided as for
official use only and not to be
used for resale or similar.
All locations and dimensions
are approximate.



Concrete and Steel Pole Counts

87.8% of System Hardened

Pole Type	Count
Wood	4,443
Concrete	29,751
Steel	2,086
TOTAL	36,280

Kaiser Hybrid Project



INVESTMENTS IN VILLAGE HYBRID SYSTEMS U/G

Description	# of Customers	Cost	Year
Agat Village Hybrid	476	\$4,346,000	2013
Dededo Kaiser Hybrid	369	\$1,100,000	2002
Dededo Village Hybrid	456	\$2,000,000	2002
Santa Rita Village Hybrid	239	\$1,700,000	2001
Talofofo Village Hybrid	242	\$2,500,000	1998
Talofofo As Lucas Hybrid	88	\$900,000	1997



Underground Secondary System (21% of Customers)

Village	Count
Agana Heights	258
Agat	575
Asan	264
Barrigada	452
Dededo	3,527
Hagatna	91
Inarajan	32
Mangilao	229
Merizo	38
Ordot/ Chalan Pago	373
Santa Rita	268
Sinajana	665
Tamuning	2,321
Tumon	407
Umatac	29
Yigo	505
Yona	732
TOTAL	10,766

GPA Resolution No. 2019-02

10

Relative to Authorizing Expenditure for the Construction of the Tumon Bay Lateral Conversion Project

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

The Tumon Bay Lateral Underground Conversion Project is designed to convert the existing overhead laterals along San Vitores Road to an underground system. The project will also upgrade the system to address voltage delivery issues. This project will provide an underground system that will remain intact in the event of a typhoon, consequently greatly minimizing restoration efforts for this area. The project was originally planned to install a primary and secondary underground system along 11 sites along San Vitores Road in Tumon. Based on available funding, the project will convert five sites (Fiesta Hotel Lateral, Dai Ichi Condo Site, Behind Pacific Bay Hotel, Behind DFS, and the Lotte and Nikko Hotel Areas). The primary line will be placed underground and residential and commercial customers within the project area will be converted to an underground service through pad-mounted transformers.

Where is it at?

Tumon

How much will it cost?

Total Cost for the five sites \$5,280,033

Tumon Lateral - Job Order 100114	Estimated Cost	Core Tech Bid Cost
Mobilization/Demobilization		\$ 1,106,341.00
Permits		\$ 83,573.00
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TOTAL	\$ 9,450,052.26	\$ 8,764,964.00
Total Site for Sites 1,2,7,10, 11 and Mobilization and Permits ONLY	\$5,280,033.00	

