



**CONSOLIDATED COMMISSION ON UTILITIES**

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

**Regular Board Meeting**  
***CCU Conference Room, Gloria B. Nelson Public Service Building***  
**5:30 p.m., November 22, 2017**

**AGENDA**

1. CALL TO ORDER
2. [APPROVAL OF MINUTES](#)
3. COMMUNICATIONS
  - 3.1 Public Comments (2 min. per person)
4. NEW BUSINESS
  - 4.1 GPA
    - 4.1.1 [GM Report Update](#)
    - 4.1.2 Financials
    - 4.1.3 [Resolution 2017-43 Tristar Doc Pipeline & RFO Storage Extension](#)
    - 4.1.4 [Resolution 2017-44 Bond Refinancing](#)
    - 4.1.5 [Resolution 2017-45 \(GWA Resolution 08-FY2018\) GPWA CC&B Upgrade\)](#)
  - 4.2 GWA
    - 4.2.1 [GM Report Update](#)
    - 4.2.2 Financials
    - 4.2.3 [Resolution 04-FY2018 Relative to Mastercard Payments for Commercial Accounts](#)
    - 4.2.4 [Resolution 05-FY2018 Construction Contract for Tumon #2, Chaot #2 Reservoirs](#)
    - 4.2.5 [Resolution 06-FY2018 Change Order for ConstrMgmtSvcs for Rehab of GWA Wells](#)
    - 4.2.6 [Resolution 07-FY2018 Contingency Fund for Route 1 Sanitary Sewer Rehab/Replacement for Asan Sewer Break Repair](#)
    - 4.2.7 [Resolution 08-FY2018 \(GPA Resolution 2017-45\) GPWA CC&B Upgrade\)](#)
    - 4.2.8 [Resolution 09-FY2018 Approval of NDWWTP Land Acquisition Funding](#)
5. OLD BUSINESS
6. ANNOUNCEMENTS
  - 6.1 Next CCU Meetings: CCU Meeting Dec. 12
7. EXECUTIVE SESSION
  - 7.1 Litigation Matter
8. ADJOURNMENT



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**Regular Board Meeting**  
**CCU Conference Room, Gloria B. Nelson Public Service Building**  
**5:30 p.m., October 20, 2017**

**MINUTES**

**1. CALL TO ORDER**

The Chairman called the regular meeting of October 20, 2017 to order at 5:30 p.m. He announced that three (3) three Commissioners were present and that there was a quorum. Comm. Sanchez and Comm. Guthertz were absent and excused.

Those present included:

**Commissioners:**

Joseph T. Duenas	CCU Chairman
Francis Santos	CCU Vice Chairman
George Bamba	CCU Secretary

**Executive Mgmt.:**

John Benavente	GM / GPA
Paul Kemp	GM (A) / GWA
Melinda Camacho	AGMO / GPA
John Cruz	AGMET / GPA
Tricee Limtiaco	AGMA / GPA
Graham Botha	Staff Attorney / GPA
Kelly Clark	Staff Attorney / GWA

**Management & Staff:**

Heidi Ballendorf	PIO / GWA
Karen Grape	IT / GWA
Zina Charfaurous	HR / GWA
Ron Topasna	GWA
Joyce Sayama	Mgmt. Analyst / GPA Ex. Office
Lou Sablan	Board Secretary / CCU

**Guest:**

Charlene Calvo	IP&E
Angelica Perez	AM Insurance
Annmarie Muna	AM Insurance

Dennis Couzjin                      Yigo Resident  
Rudy Matanane                      Yigo Mayor

**2. APPROVAL OF MINUTES**

The Minutes of the Special Meeting of October 13, 2017 was presented for approval.

Comm. Bamba motioned to approve the Minutes subject to verification & written correction; Comm. Santos seconded. There was no further discussion or objection and the motion passed.

**3. COMMUNICATIONS**

**3.1 Public Comments**

Mr. Dennis Couzjin, a resident of Yigo addressed the Commission about the continuous water outage happening in Mt. Santa Rosa, Yigo. He complained about the length of the outage in his area and cited seven (7) instances since 2015 to present that Mt. Sta. Rosa lost water. Mr. Couzjin also said that root cause for the outage was lack of replacement parts which he found out to be true after being told on many occasions from GWA staff that the outage was due to pressure problems and that it was being monitored. He completed his commentary by saying heads should roll, someone should be held accountable and that he and other ratepayers affected by this continuous circumstance should not have to put up with it. There are a lot of people being inconvenienced by GWA's lack of responsibility.

Mr. Rudy Mantanona, Mayor of Yigo also addressed the Commission. He said he is here in support of Mr. Couzjin. He said he too has had many of his constituents calling his office to complain about the water outage and the inconveniences that the long outage causes. He said GWA has been in existence for many years and should do a better job at keeping stock / inventory. He pleaded with management to make things better for our people and said he hopes to get a phone call from GWA management to give him a good explanation for the outages – one that he can share with his many constituents.

**4. NEW BUSINESS**

**4.1 GWA**

**4.1.1 GM Report Update**

Acting GM Kemp said there is some changes to the GM report and is in Board Books. He said he wanted to address the issue with abandoned calls and stated that USA San Agustin said some of the calls registered under abandoned calls are those received during lunch. Comm. Bamba said that there should always be someone available to answer the phones. Comm. Bamba said he personally has had issues personally where the Voice Mail responds saying he would get a callback but no one called him back. This is not acceptable – all call-ins should be responded to. USA San Agustin says Voice Mails are checked and cleared at least twice a day. When reviewing the Shoretel reports she notices that 78 calls were received and 48 were abandoned but this was done during the weekend when no one is here. She said there is absolutely room for improvement but wanted to point this out. She also confirmed she has been meeting with AGMA Limtiaco to work together with GPA to fine-tune our call processes and are actively working with Shoretel to resolve some of these issues. Comm. Bamba said that we are a 24/7 operations and only dispatch number is listed publicly as a 24/7 contact. There was discussion about who handles calls about outages; the response was dispatch.

Comm. Bamba said GWA management needs to better their service or response time on GWA dispatch – right now no one is answering the phone. Comm. Santos asked who the in-house Shoretel expert is in GWA or GPA IT – it was mentioned that there is none. He said Shoretel needs to own up to their service because we are not satisfied.

Comm. Duenas asked GM Benavente how GPA handles this matter and the GM responded that dispatch handles calls related to outages and finance handles calls related to billing – the same as GWA.

Acting GM Kemp said the CCU wanted data on the sequence of outages; an appendix is included in the GM's report. He said the Barrigada water outage which started with the well going down. The tanks didn't fill as expected which was the root cause of the outage. He explained that there's a series of steps that must be taken when this happens. He reported that Barrigada had a bearing problem and it was fixed at the GPA shop. He also reported that hard down wells are being redrilled in hopes to get them back up and operational again.

Comm. Duenas asked the timeline for implementation of SCADA; GM Benavente said possibly July. Comm. Duenas asked for timeframe as to when management expects this project to be completed, the Commission wants an update from both him and GM Bordallo. Comm. Duenas said to GM Benavente that the Commission would like an update in Nov/Dec on status of SCADA for both GPA and GWA showing timeline for completion by percentages – 20% completion by this date, 40% by that date.

GM Benavente said he would email the CCU a presentation that GPWA GM's were going to present to CCU in October but postponed due to heavy agenda. The Chairman said to email for advanced review and to send report before the November meeting.

Comm. Duenas said to Acting GWA GM Kemp an update on GWA's reordering system. GWA Legal Counsel responded that a system is in place for quarterly inventory refurbishment. GPA GM Benavente added that the parts supply for replacement parts for the wells are on order but lead time is lengthy and the inventory cost is in the millions. He added that the Commission will see inventory improvements in 2-3 months. He said the team has identified key problems and solutions are being discussed for best practices.

GWA Management reported on status of NAS 1 Well – GM Benavente said that the team is working on this now and will report to the Commission an update. Comm. Duenas asked for a target timeline. Comm. Santos said GWA inherited a problem and there's a possible solution with the activation of NAS 1 Well that is why this project is very important.

#### **4.1.2 Financials**

Financials were not discussed at this meeting.

#### **4.1.3 Resolution No. 01-FY2018 Relative to the Creation and Addendum of Certified, Technical and Professional (CTP) List of Positions and to Adopt CCU Resolution No. 2012-49 as an Approved Business Process for Guam Waterworks Authority**

The objectives are to provide for the integration of previously non-CTP positions for which specific knowledge of utility systems and/or operations is required, into the list of CTP

positions; and, we request the Board's approval of the proposed creation of positions and the addition of the previously non-CTP positions to the list of CTP positions. These actions are necessary to maintain uniformity in the application of the promotion/demotion/transfer pay policy relative to CCU Resolution No. 2012-49 for all CTP positions covered under the Strategic Pay Scale, and to apply CCU Resolution No. 2012-49 to GWA business processes.

The matters covered under this resolution are necessary and urgent to address the obsolete pay grades that were in place since 2007 and to allow for a refit and reset of the new pay grades that will coincide with the 2017 market data. There is no related cost to adopt the resolution other than payroll. The transition will take effect January 1, 2018.

Comm. Bamba motioned to approve Resolution 01-FY2018; Comm. Santos seconded. There was no further discussion or objection and the motion carried unanimously.

**4.1.4 Resolution No. 02-FY2018 Relative to the Adoption of the 2017 Market Update and the Approval to Migrate to the 10<sup>th</sup> Market Percentile for the Guam Waterworks Authority's**

To adopt recommendations of utility market review and update for GWA's pay scale. In order to meet these objectives, GWA also requests the Board to accept the recommendations of the market review update for CTP positions, including a new pay scale, the refit and reset of new grades to coincide with the 2017 market data. These actions are necessary to maintain uniformity in the application of the promotion/demotion/transfer pay policy relative to CCU Resolution No. 2012-49 for all CTP positions covered under the Strategic Pay Scale, and to apply CCU Resolution No. 2012-49 to GWA business processes.

The matters covered under this resolution are necessary and urgent to address the obsolete pay grades that were in place since 2007 and to allow for a refit and reset of the new pay grades that will coincide with the 2017 market data. The cost to migrate to the 10<sup>th</sup> market percentile is estimated to be \$1.2M and upon CCU approval, the transition to the new pay scale is anticipated to take effect on January 1, 2018. The FY2018 Budget is the funding source for this project.

Comm. Bamba motioned to approve Resolution 02-FY2018; Comm. Santos seconded. There was no further discussion or objection and the motion passed.

**4.1.5 Resolution No. 03-FY2018 Relative to Approving the Construction Management Contract for Tumon No. 2, Hyundai, and Chaot No. 2 Tank and Systems Upgrades**

The project is part of the 2011 Court Order Paragraph 29 – Storage Tank/Reservoir Repair, Replacement, and Relocation Program. As a Court Order project, it is necessary and urgent to work towards meeting the Court Order deadlines. The project's objective is to provide construction management services for the construction of the Tumon No. 2, Hyundai, and Chaot No. 2 tank project. The construction management contract includes Tumon No. 2 tank with offsite upgrades, Hyundai tank, and Chaot off-site upgrades.

The location for this project include Tumon No. 2 – the tank located on Marine Corp. Drive adjacent to the Nissan Dealership. Offsite upgrades will include PRVs on Pale San Vitores Road and Marine Corp Drive. Hyundai - tank is located in Barrigada Heights off South Sabana Drive. Chaot Offsite: Work is located on Dero Road, A-Series wells, and the Chaot/Agana Height tank sites.

The fee proposal is for One Million Nine Hundred Fifty Four Thousand Eighty Nine Dollars (\$1,954,089.00). Scope of work includes Tumon No. 2 tank with offsite work, Hyundai tank, and Chaot offsite work. With a ten percent (10%) contingency included of One Hundred Ninety Five Thousand Four Hundred Eight Dollars and Ninety Cents (\$195,408.90), to bring the total authorized funding amount to Two Million One Hundred Forty Nine Thousand Four Hundred Ninety Seven Dollars and Ninety Cents (\$2,149,497.90) is \$2,149,497.90.

Bid responses were brisk with 22 firms who picked up packets and 7 proponents who submitted completed bid packets. Management further explained that CM services is for 16 months. The start date is dependent on the construction contract and the funding shall be from PW 09-11: Water System Reservoirs 2005 Improvements, PW 12-04: Agana Heights and Chaot Tank Construction, and PW 12-06: Tank Replacement Piti and Hyundai Tanks.

Comm. Bamba motioned to approve Resolution 03-FY2018; Comm. Santos seconded. There was no further discussion or objection and the motion passed.

## 4.2 GPA

### 4.2.1 GM Report Update

GM Benavente said the GM report is the same as the work session with one change – the addition of the proposed LEAC adjustment in December based on current trends. The Commission, at the last meeting, asked management to determine what the projected LEAC factor would be based on 100% vs. 50% fuel recovery. He said the CFO examined scenarios using 80% RFO / 20% diesel fuel and another with 70% RFO and 30% diesel based on low, medium and high fuel projections. The report below is the outcome of CFO Kim's study. Current fuel prices is about \$52 (or #2 below).

LEAC Scenarios – February 1, 2018					
	Projected LEAC Rate		Projected Increase from current rate of \$0.117718		Projected Under-Recovery 7-31-2018
	50% Recovery	100% Recovery	50% Recovery	100% Recovery	50% Recovery
Scenario A - Dispatching 80-20					
					(mil)
1 Low Fuel Price (\$45-\$50/Bbl)	\$ 0.127877	\$ 0.138037	\$ 0.0102	\$ 0.0203	6.1
2 Medium Fuel Price (\$50-\$55/Bbl)	0.134792	0.151866	0.0171	0.0341	10.4
3 High Fuel Price (\$55-\$60/Bbl)	0.141706	0.165695	0.0240	0.0480	14.5
Scenario B - Dispatching 70-30					
1 Low Fuel Price (\$45-\$50/Bbl)	0.132441	0.147162	0.0147	0.0294	8.9
2 Medium Fuel Price (\$50-\$55/Bbl)	0.139809	0.161900	0.0221	0.0442	13.4
3 High Fuel Price (\$55-\$60/Bbl)	0.147178	0.177738	0.0295	0.0600	17.8

CFO Kim said based at current barrel prices of \$50-\$55 at 100% recovery the rate increase is 15 cents; at 50% recovery will be 13 cents or 3.4 cent recover or 1.7 cent recovery, respectively.

Comm. Bamba commented that WTI report shows futures prices are less (than what GPA is quoting) adding that these are future prices. If futures prices are lower than GPA's actual, he asked if GPA reconciles these prices prior to determining the LEAC factor, if any. In response, CFO Kim said management take Morgan Stanley prices and update futures about 3 months and plug in GPA's models to determine the LEAC forecasting. He reminded the Commission that the LEAC model keeps track of current inventory purchased at previous prices (\$47 - \$50) which is averaged out about 4 months and to this add 2 months of current fuel prices. All these factors are plugged into GPA's LEAC models to determine the projected LEAC forecast. The CFO said this number is projected through August with projections based on current trend, Morgan Stanley futures prices. GM Benavente said when management comes back to the CCU in December, the futures prices will be used in the models to determine the projected LEAC factor. The GM said again that this is all based on 80/20 usage baseload to diesel fuel. Comm. Bamba reiterated that management must ensure that the prices used in these LEAC calculations are reconciled using futures pricing prior to determining the LEAC calculation.

CFO reminded the Commission that the current projection includes the current under recovery is 10M and LEAC must be increased by 15 cents to recover at 100%. The illustration above shows what the increase would be like at the 50% and 100% increase, respectively. The Chairman said the under recovery cannot go forward indefinitely. In December hopefully management will have better information and management needs to let the Commission know which rate will get back the \$10M under recovery.

The CCU asked management to show the Commission at the November work session how the LEAC factor is trending.

In terms of LEAC Comm. Santos the number that management is looking at for 100% recovery is 15 cents increase. The CFO confirmed yes.



## Billing Illustration - Residential

	RATE SCHEDULE R					
	Existing Rate		Proposed Rate (50%)		Proposed Rate (100%)	
KWH		1,000		1,000		1,000
Monthly Charge	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
Non-Fuel Energy Charge						
First 500 KWH	0.069550	34.78	0.069550	34.78	0.069550	34.78
Over 500 KWH	0.086870	43.44	0.086870	43.44	0.086870	43.44
Emergency Water-well charge	0.002790	1.40	0.002790	1.40	0.002790	1.40
Insurance Charge	0.000000	-	0.000000	-	0.000000	-
Working Capital Fund Surcharge	0.000000	-	0.000000	-	0.000000	-
Total Electric Charge before Fuel Recovery Charges		94.61		94.61		94.61
Fuel Recovery Charge	<b>0.117718</b>	117.72	<b>0.134792</b>	134.79	<b>0.151866</b>	151.87
Total Electric Charge		\$212.32		\$229.40		\$ 246.47
Increase/(Decrease) in Total Bill				\$ 17.07		\$ 34.15
% Increase/(Decrease) in Total Bill				8.0%		16.1%
% Increase/(Decrease) in LEAC rate				14.5%		29.0%

### 4.2.2 Financials

Financials were not discussed at this meeting.

### 5. OLD BUSINESS – None

### 6. ANNOUNCEMENTS

#### 6.1 Next CCU Meetings

The Chairman announced that he next meeting would be a work session for GWA on November 14; work session for GPA on Nov. 16 and the regular monthly CCU meeting on Nov. 21.

The Chairman also clarified the start time for CCU meetings. work sessions are at 4:30 p.m. and CCU meetings at 5:30 p.m.

### 7. ADJOURNMENT

There was no further business to bring before the Commission and the meeting was adjourned at 6:43 p.m.

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Attested:

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JOSEPH T. DUENAS, Chairman

\_\_\_\_\_  
J. GEORGE BAMBA, Secretary





## GUAM POWER AUTHORITY

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

**TO: Consolidated Commission on Utilities**

**FROM: General Manager**

**DATE: November 21, 2017**

**SUBJECT: General Manager's Report**

### **1. Generation System Update:**

- The following table projects the expected reserve level for December 2021. The minimum reserve requirement has to be greater (typically about 20MW more) than the total capacity of the two largest unit. **The table indicates that if we don't build the new power plant, we will lack capacity by about 2021.** The situation is critical because it will take several years to construct base load units and therefore GPA may be face with constructing more emergency units which are less efficient. GPA has adequate standby and emergency power and what it needs are base load units if it is to reduce its operating fuel related cost.
- TEMES 7 will be turned over to GPA on December 4<sup>th</sup>, 2017. The turnover is part of the Build, Operate and Transfer (BOT) Contract signed 20 years ago. GPA has begun shadowing the Independent Power Producer (IPP) TEMES operation since June 2017 in preparation of the transfer.  
GPA has contracted a Professional Service Team for about \$220K to assist in the management, operation and maintenance of the plant utilizing GPA employees. **The annual cost reduction of the takeover is about \$5 Million.**

- We have determined we will need to conduct chemical cleaning of Cabras 1 & 2 boilers in order to reduce frequency of boiler tube outages. The work is being schedule for the period between March and April 2018.

**Summary of System Generating Capacity Thru 2021:**

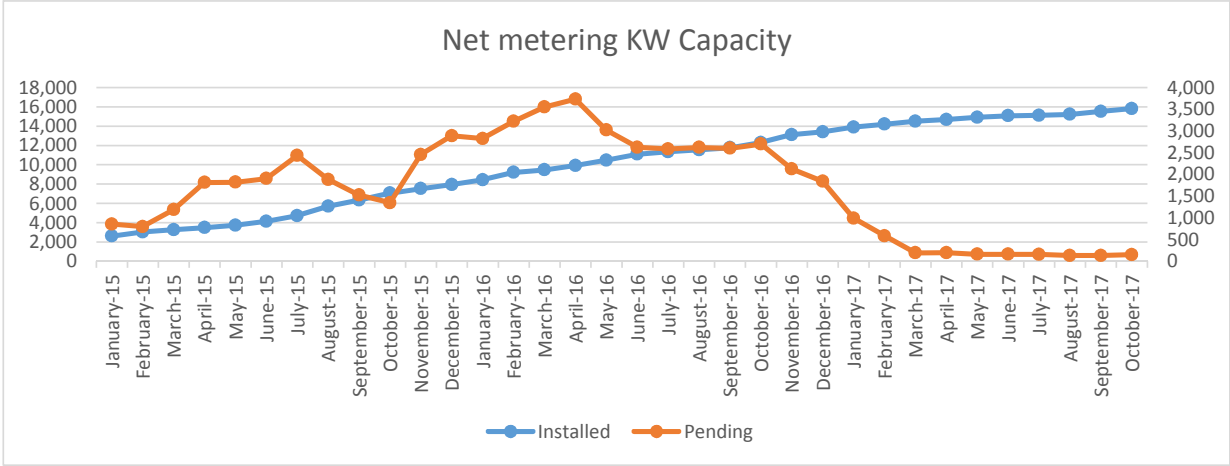
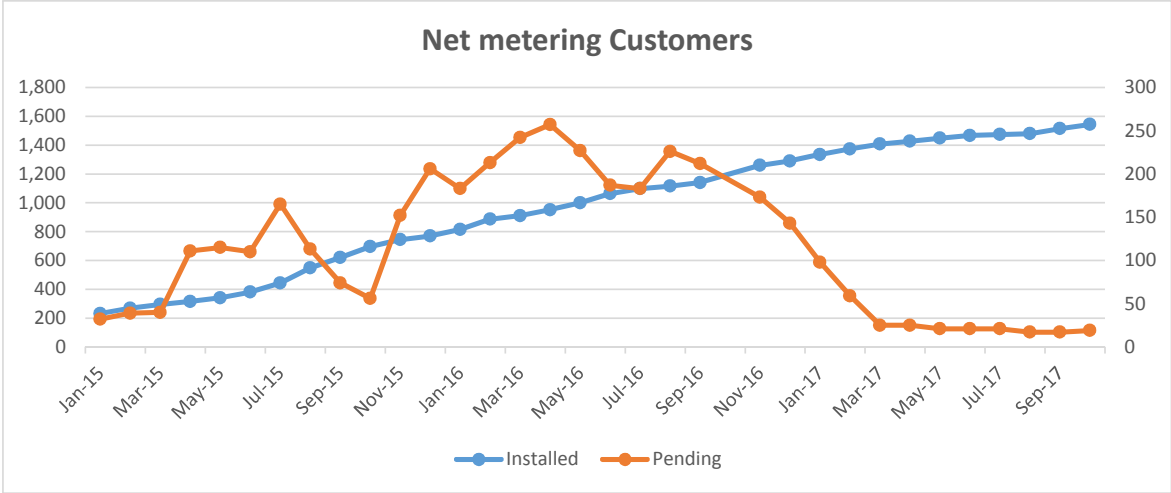
				<b>With New 180MW</b>
<b>Description</b>	<b>FY 2015</b>	<b>FY2017</b>	<b>FY2021</b>	<b>FY2021</b>
Baseload MW Capacity	299	208	208	268
Emergency/Standby Capacity	120	200	200	200
<b>Total MW Capacity</b>	<b>419</b>	<b>408</b>	<b>408</b>	<b>468</b>
Peak MW Demand	249	263	283	283
Reserve Margin	170	145	125	185
Total Two Largest Units	132	120	120	88
<b>Reserve Less Two Largest Units</b>	<b>38</b>	<b>25</b>	<b>5</b>	<b>97</b>
<b>% Baseload Capacity</b>	<b>71.4%</b>	<b>51.0%</b>	<b>51.0%</b>	<b>57.3%</b>
% Energy from Baseload	98.0%	80.0%	62.2%	72.6%
% Energy from Renewables	0.0%	3.5%	26.4%	26.4%
<b>% Energy from Emergency/Peaker</b>	<b>2.0%</b>	<b>16.5%</b>	<b>11.4%</b>	<b>1.0%</b>

16.5%	11.4%	72.6%
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**2. Net metering Summary Ending October 2017:**

<b>Description:</b>	<b>Count</b>	<b>Kw</b>
<b>Active</b>	<b>1,544</b>	<b>15,817</b>
Pending	19	151
Totals:	1,563	15,968

<b>Service:</b>	<b>Count</b>	<b>KW</b>	<b>Kw/Customer</b>
Residential	1,436	13,145	9.2
Others	108	2,672	24.7
Total:	1,544	15,817	10.2
<b>% Residential</b>	<b>93.0%</b>	<b>83.1%</b>	
<b>Estimated 12 Months Revenue Impact:</b>	<b>\$2,932,188</b>		



**3. Renewable Energy Production Summary Thru October 2017:**

<b>Energy Production Source:</b>	<b>Kwh</b>	<b>Oil Barrels Avoided</b>	<b>Fuel Cost Avoided</b>
NRG Total Production beginning Oct 2015	100,180,996	167,504	\$9,212,739
Net Metering Estimated Production beginning Jan 2015	45,829,531	76,628	\$4,214,527
Wind Power Production beginning Jan 2016	725,416	1,213	\$66,710
<b>Renewables Total:</b>	<b>146,735,943</b>	<b>245,345</b>	<b>\$13,493,975</b>
System Heat Rate Kwh/Gal	14.2		
System Fuel \$/Bbl	\$55.00		

**4. Demand Side Management (DSM) Program Expenses Thru October 31, 2017:**

Description	FY16	FY17	FY18 As of Oct 31	Total to Date
Regular/OT Pay	\$11,348.80	\$22,256.00	\$1,391.35	\$34,996.15
Other Contractual	\$28,278.50	\$73,010.05		\$101,288.55
Paid Rebates– Split AC	\$154,700.00	\$557,275.00	\$184,650.00	\$896,625.00
Paid Rebates– Central AC	\$3,400.00	\$8,200.00	\$800.00	\$12,400.00
Paid Rebates– Washer/Dryer	\$2,800.00	\$7,425.00	\$200.00	\$10,425.00
<b>Total Expenses</b>	<b>200,527.30</b>	<b>\$668,166.05</b>	<b>\$188,432.70</b>	<b>\$1,055,734.70</b>

5. **Phase II Renewables:** The OPA hearings on this protest was conducted between October 24 and 26, 2017. The OPA plans to render a decision about 30 days thereafter and we may get the decision within this month.
6. **Phase III Renewables Bid:** The bid has been issued. The bid request is for about 40MW of solar PV renewables to be constructed on Navy leased land. The energy produced would be stored in batteries during the day and released at nighttime to meet peak time load.
7. **Public Power Week:** GPA had a successful public power week. Special thanks to Art Perez and the committee which made it all possible with special events, visits to schools and health care centers and a donation to the American Red Cross. The Communications Division will be working on next year's special events to mark GPA's 50th anniversary as an autonomous agency and now public corporation owned by the ratepayers of Guam. We will present the program to CCU in January 2018.
8. **APPA Award:** Guam Power Authority received an "Award of Merit" from the American Public Power Association in the Web/Social Media category. Thirty-three public power electric utilities earned Excellence in Public Power Communications awards from the American Public Power Association (consist of over 2,000 members). The annual awards recognize excellence in communications. This year's entries were judged in three categories: print/digital, web/social media, and video. Awards were given to utilities that showed ingenuity and creativity in telling their stories through outstanding copy, design, financial data presentation, graphics, social media engagement, video editing, and web layout and interactivity.
9. **PUC Agenda for November 30, 2017:**
  - GPA Docket 18-02, Petition to Approve the Procurement for 180MW Power Plant
  - GPA Docket 17-20, Petition to Refund/Refinance GPA's outstanding 2010 Series A Revenue Bonds



**10. Presentations on New Power Plant:** I have made presentations to the following stakeholders over the past few weeks:

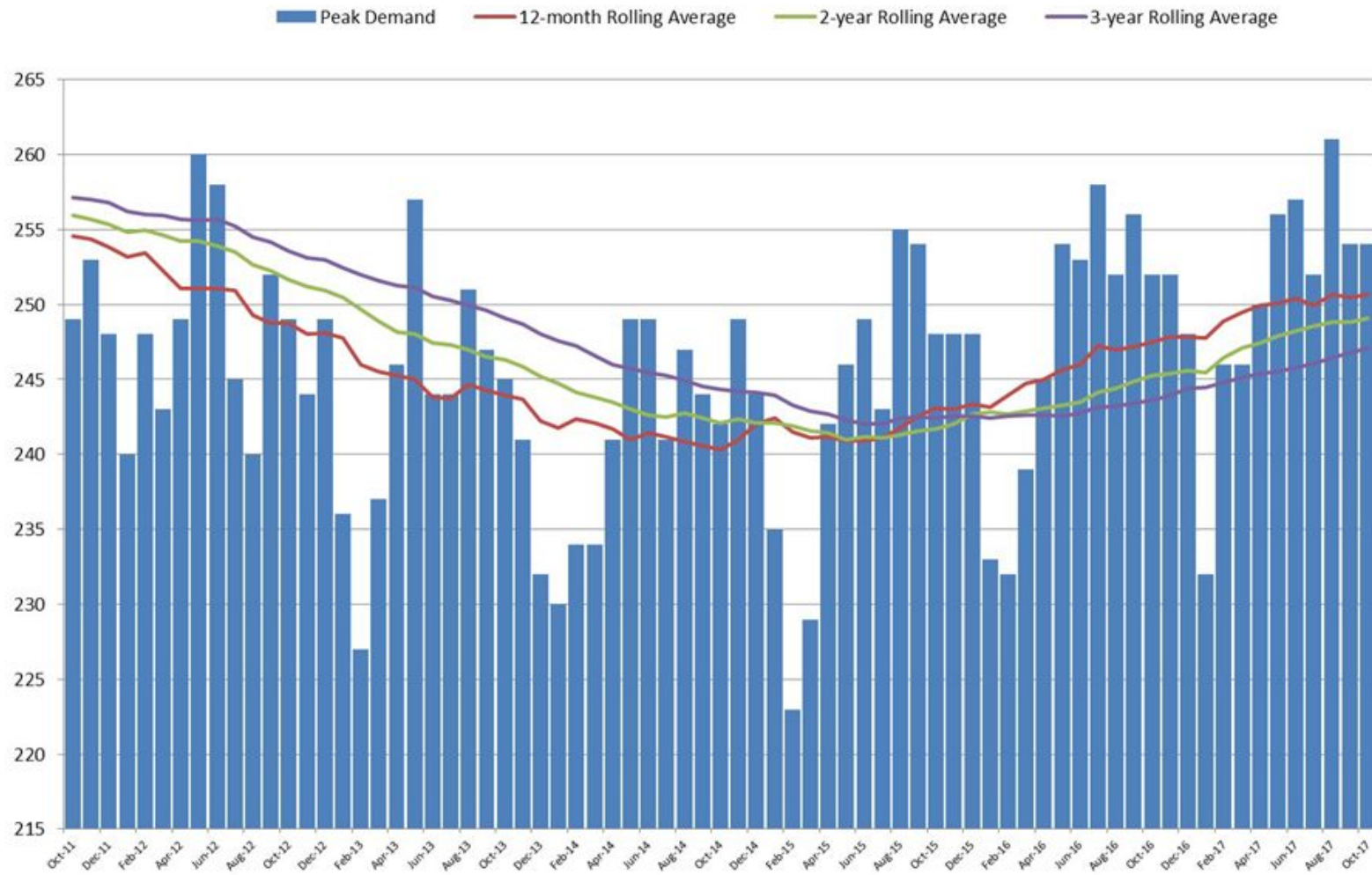
- American Society of Military Engineers – October 19th
- Guam Contractor's Association – November 15<sup>th</sup>
- GHRA Membership - November 16<sup>th</sup>

**11. Integrated Resource Plan-New 180MW Power Plant Chronology:** Attached is the chronology of events on effort towards the construction of the new 180 MW plant. We continue to reach out to stakeholders explaining the need for the new plant and asking for their support on the effort. Our latest outreach included presentations to the general membership of the American Society of Military Engineers, Guam Contractor's Association and last week to the Guam Hotel and Restaurant Association. We are currently scheduling village meetings for Dededo, Tamuning and one in the southern villages. Attached is a summary of questions asked during these outreaches and responses provided.

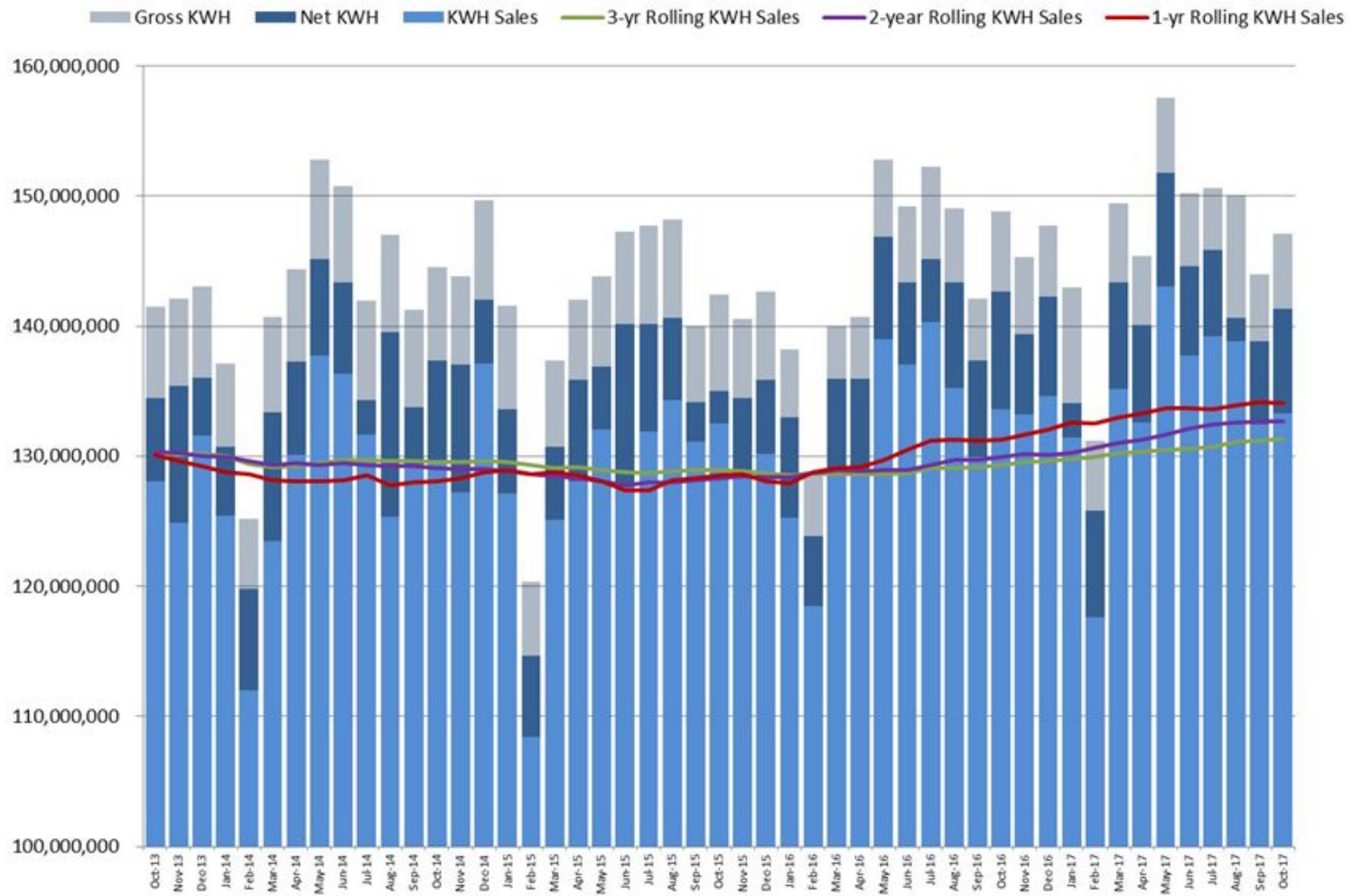
**12. Key Performance Indicators:** The following pages provide updated information thru October 2017.

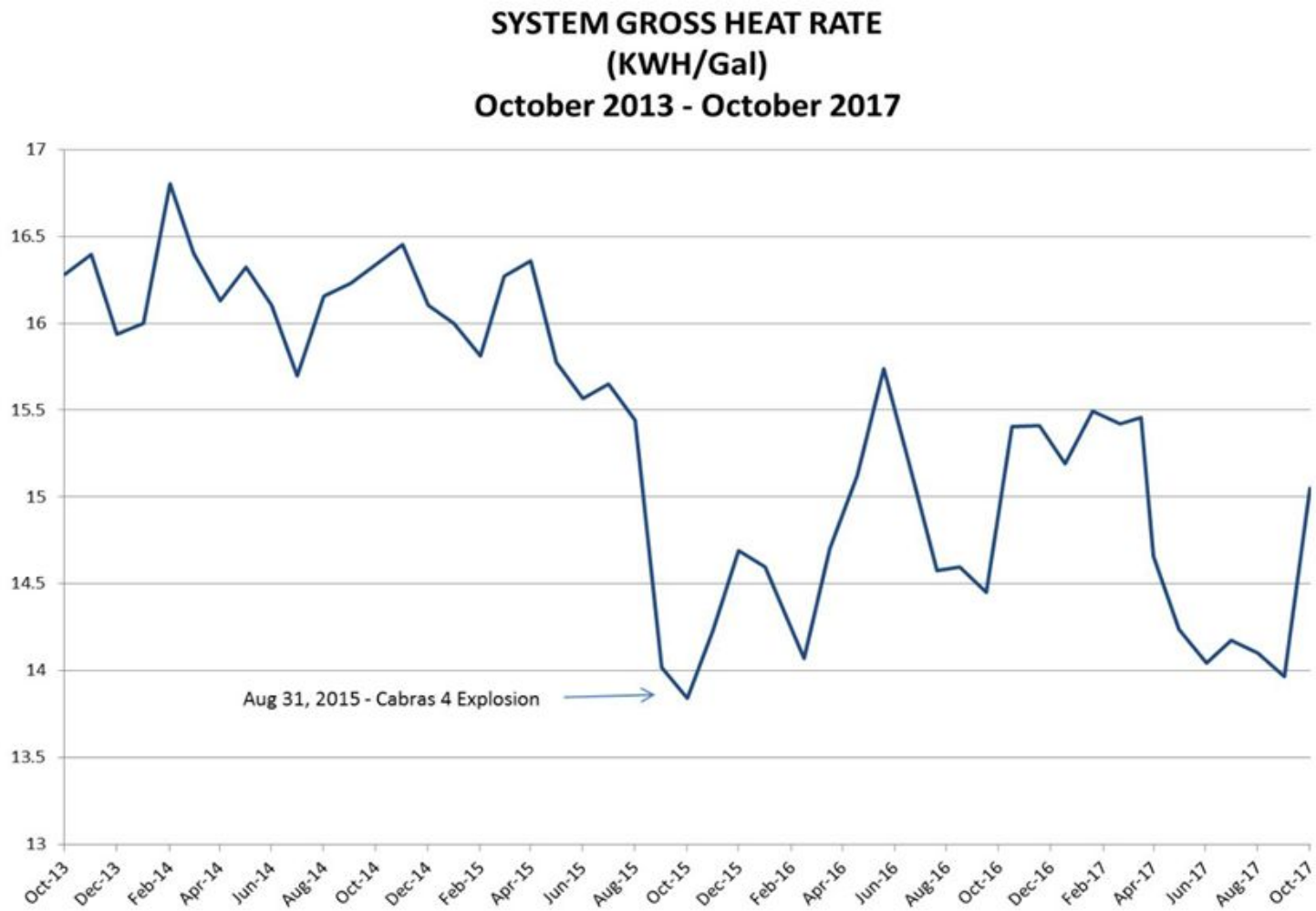
John M. Benavente, P.E.

## Historical Monthly Peak Demand Oct 2011 - October 2017

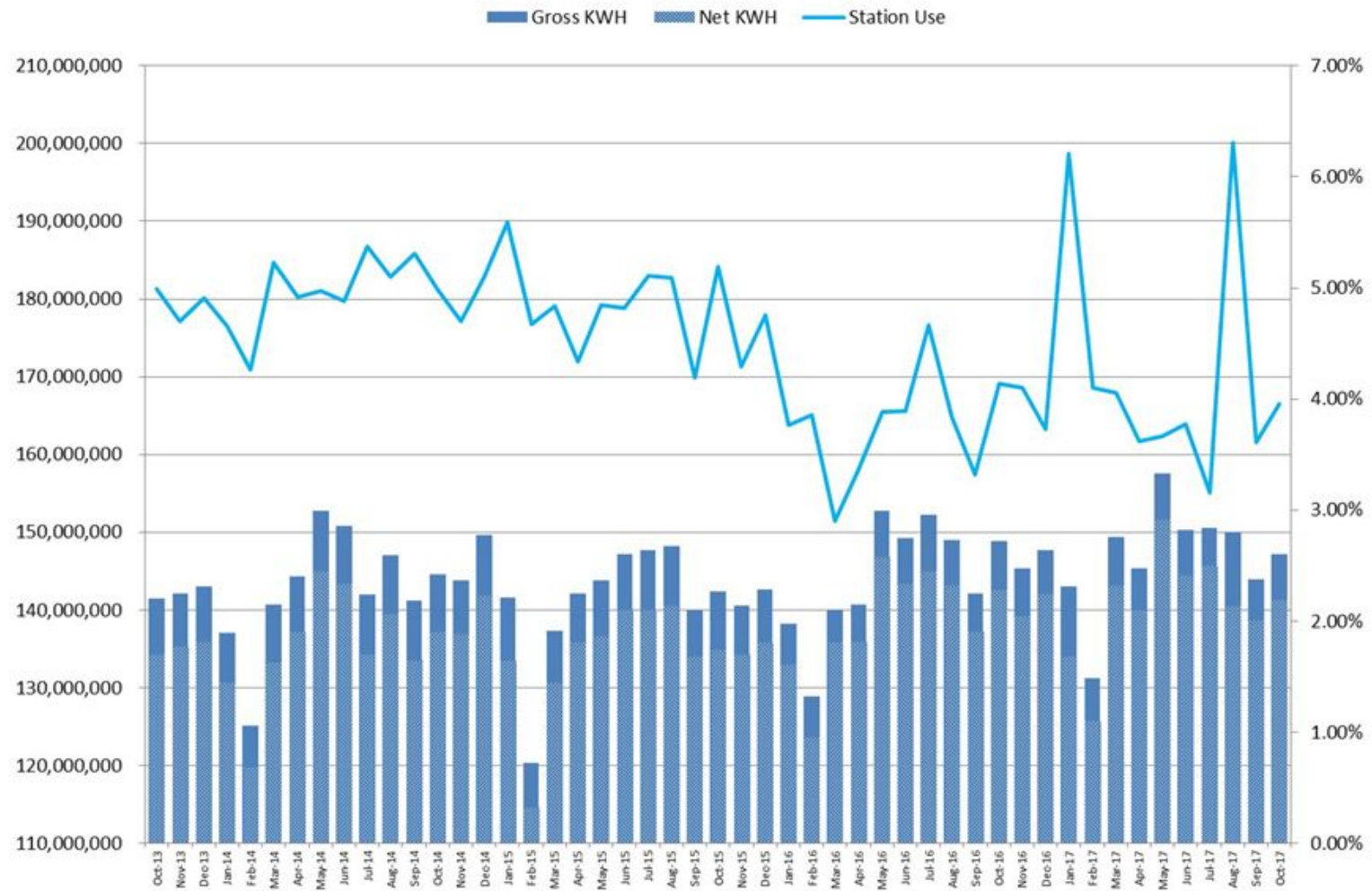


## Historical KWH Sales October 2013 - October 2017

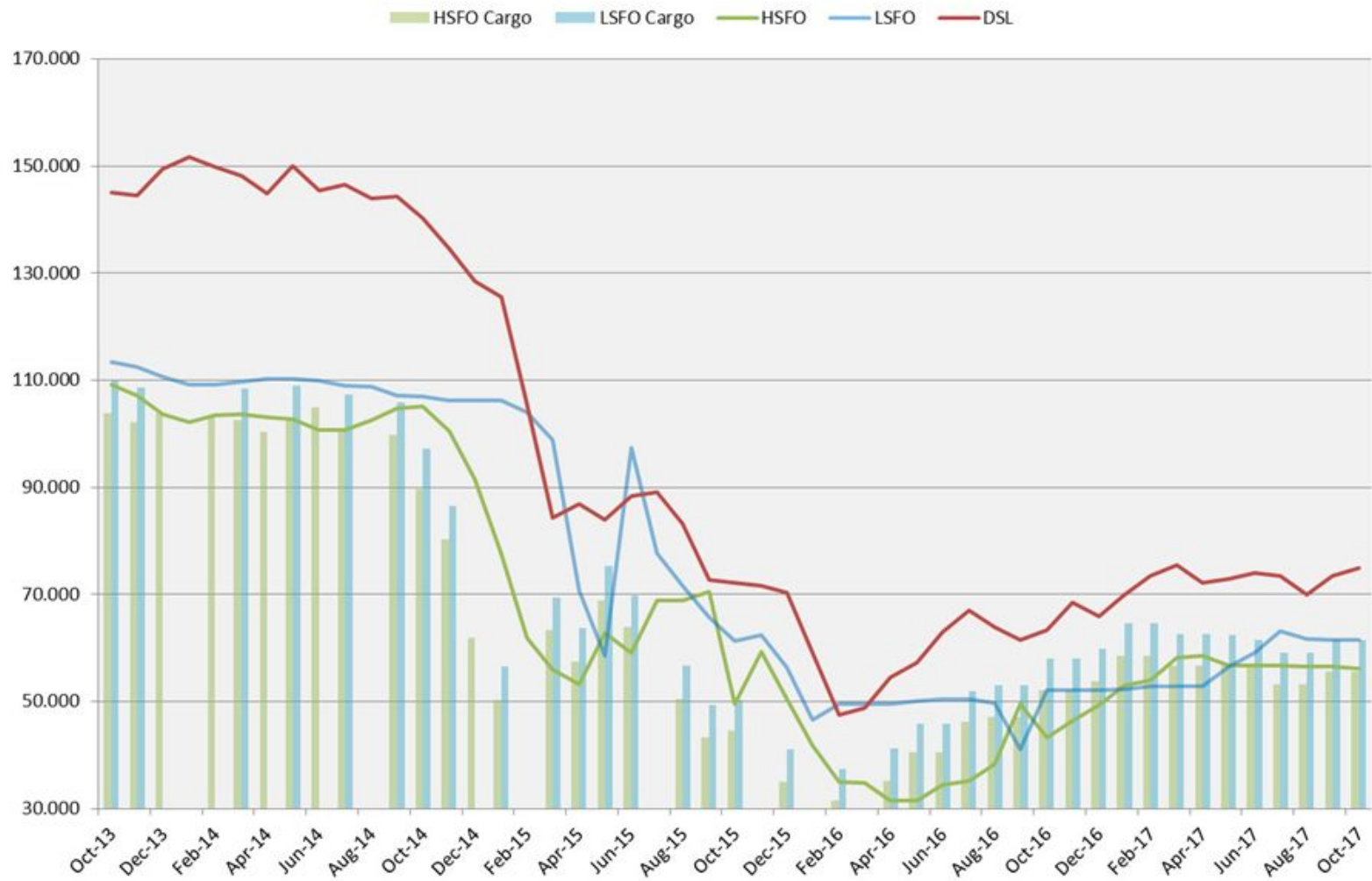




## Gross and Net Generation (KWH) October 2013 - October 2017

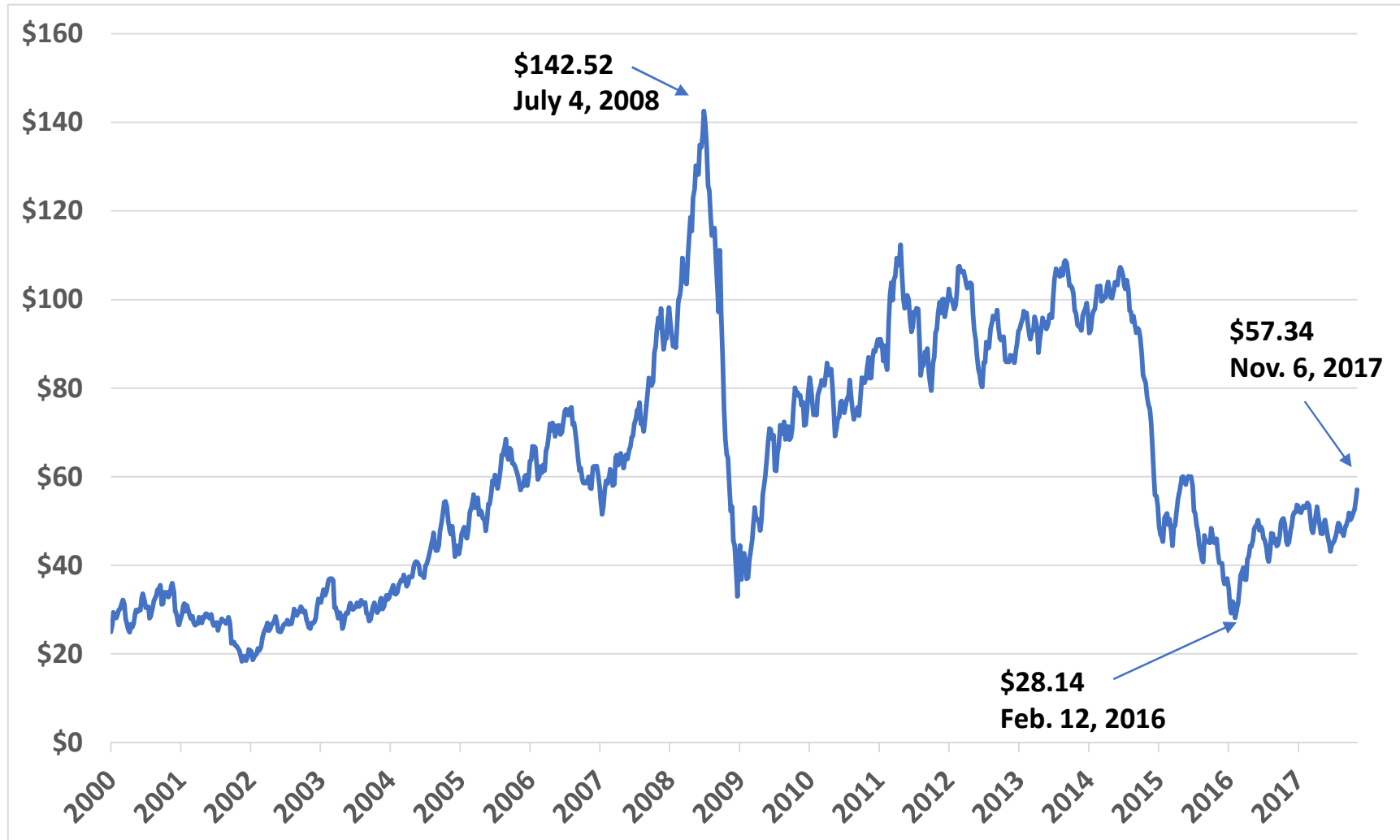


### Fuel Cargo and Fuel Consumption Costs (\$/bbl) October 2013 - October 2017



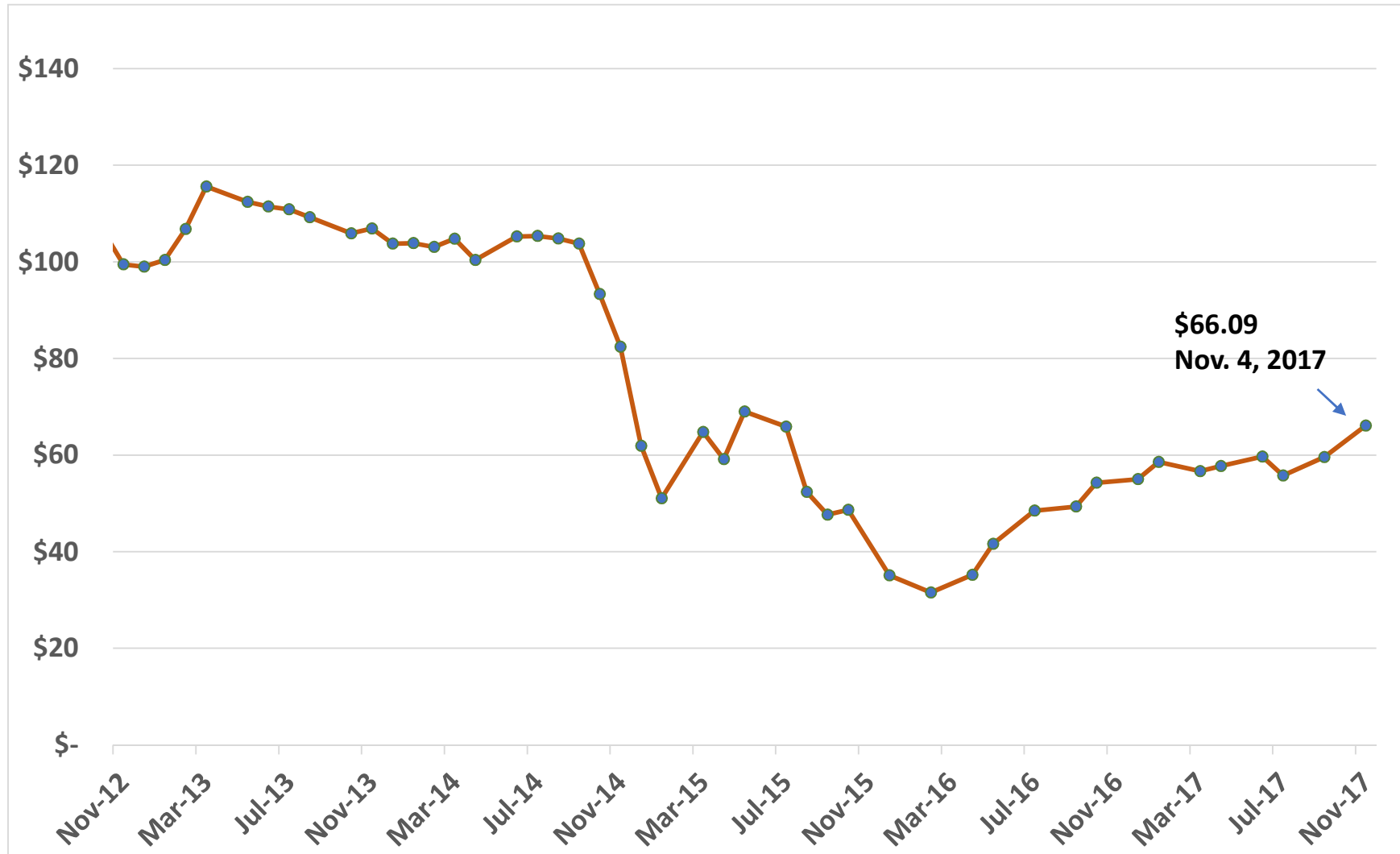
# LEAC Update-WTI Spot Price (Dollars per Barrel)

(GPA fuel cost is around \$8.61 per barrel above WTI Spot Price)





# LEAC Update – GPA Fuel Purchases (Per Barrel)



# LEAC Update – LEAC Factor

## **GPA Docket 15-27**

- LEAC fuel forecast price should be based upon the five day period which is ten days before the meeting at which the PUC determines the LEAC factor
- Based on 5 day Morgan Stanley Fuel Price Forecast

# LEAC Update – Sing HSFO 180 CST Price MT

## Sing HSFO 180 CST

Date	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
11/15/2017	\$363.40	\$363.40	\$363.15	\$361.90	\$361.98	\$358.90	\$358.90	\$358.90	\$355.48	\$355.48	\$355.48	\$351.90	\$351.90
11/14/2017	\$372.35	\$372.35	\$371.60	\$370.60	\$370.60	\$367.44	\$367.44	\$367.44	\$363.69	\$363.69	\$363.69	\$359.35	\$359.35
11/13/2017	\$377.03	\$376.03	\$375.03	\$373.78	\$373.78	\$370.11	\$370.11	\$370.11	\$365.36	\$365.36	\$365.36	\$360.28	\$360.28
11/10/2017	\$376.47	\$376.22	\$375.72	\$374.22	\$374.31	\$370.56	\$370.56	\$370.56	365.56	365.56	365.56	360.47	360.47
11/9/2017	\$375.13	\$375.63	\$374.88	\$373.38	\$373.46	\$369.46	\$369.46	\$369.46	\$365.46	\$365.46	\$365.46	\$361.29	\$361.29
<b>Average</b>	<b>\$372.88</b>	<b>\$372.73</b>	<b>\$372.08</b>	<b>\$370.78</b>	<b>\$370.83</b>	<b>\$367.29</b>	<b>\$367.29</b>	<b>\$367.29</b>	<b>\$363.11</b>	<b>\$363.11</b>	<b>\$363.11</b>	<b>\$358.66</b>	<b>\$358.66</b>

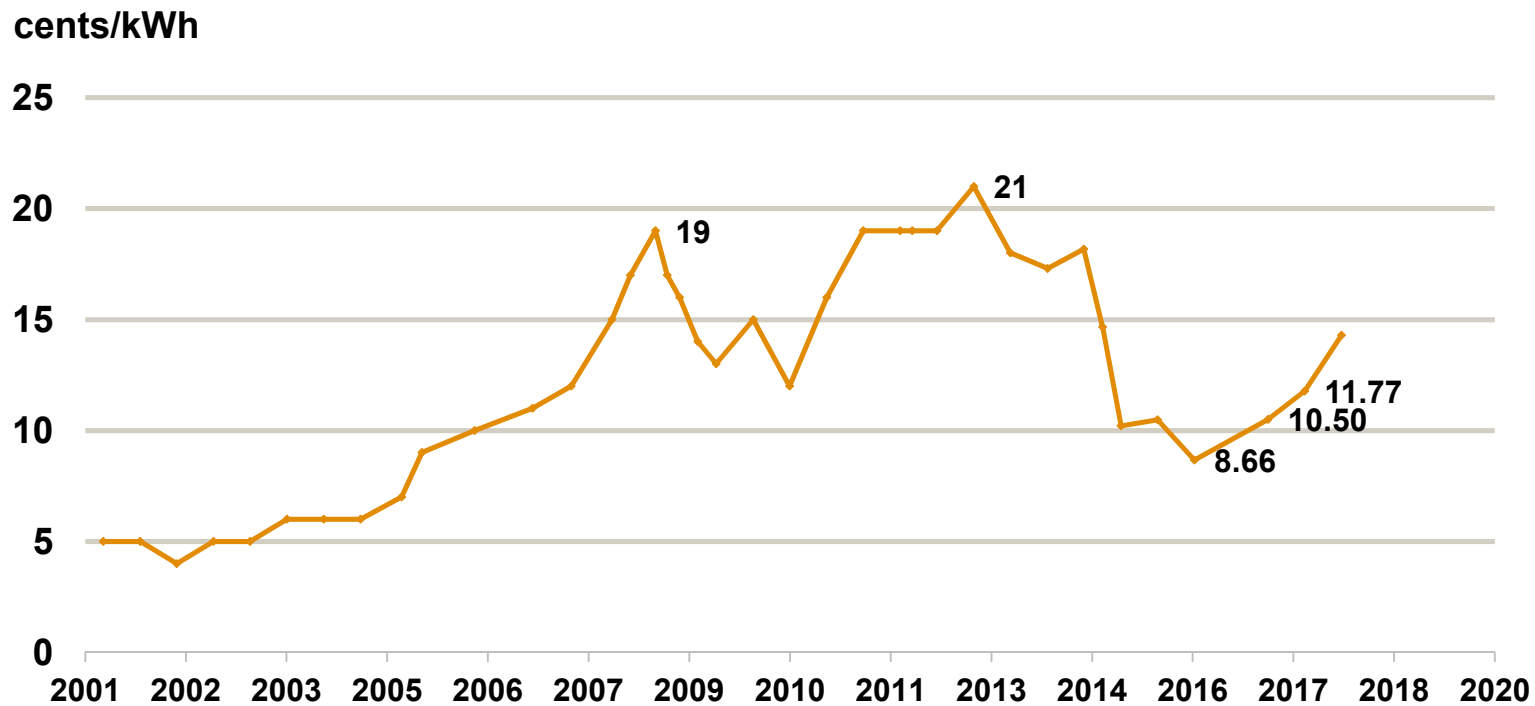
# LEAC Update – LEAC Rate

Projected LEAC Rate			Projected Increase from current rate of \$0.117718			Projected Under-Recovery 7-31-2018	
50% Recovery	75% Recovery	100% Recovery	50% Recovery	75% Recovery	100% Recovery	50% Recovery	75% Recovery
Dispatching 78-22						(mil)	(mil)
GPA Fuel Cost (\$65-\$70/Bbl) \$						14.3	7.1
0.142881	0.153971	0.165062	0.0252	0.0363	0.0473		

Projected Under-Recovery of \$18.5 mil as of Jan. 31, 2018

Date	\$/Bbl		Asia Noon Call Forward Prices in MT	Premium - HSFO per barrel	Premium - LSFO per barrel	Weighted Avg Premium	Price/Bbl	Price/Bbl w Premium
Oct-17	\$57.79	Actual						
Nov-17	66.09	Actual						
Dec-17	67.21	Forecast	\$ 372.73	\$ 6.52	\$ 12.49	\$ 8.61	\$ 58.60	\$ 67.21
Jan-18	67.11	Forecast	372.08	6.52	12.49	8.61	58.50	67.11
Feb-18	66.91	Forecast	370.78	6.52	12.49	8.61	58.30	66.91
Mar-18	66.91	Forecast	370.83	6.52	12.49	8.61	58.31	66.91
Apr-18	66.36	Forecast	367.29	6.52	12.49	8.61	57.75	66.36
May-18	66.36	Forecast	367.29	6.52	12.49	8.61	57.75	66.36
Jun-18	66.36	Forecast	367.29	6.52	12.49	8.61	57.75	66.36
Jul-18	65.70	Forecast	363.11	6.52	12.49	8.61	57.09	65.70
Aug-18	65.70	Forecast	363.11	6.52	12.49	8.61	57.09	65.70
Sep-18	\$65.70	Forecast	\$ 363.11	\$ 6.52	\$ 12.49	\$ 8.61	\$ 57.09	\$ 65.70

# LEAC Update – Historical LEAC Rate



# LEAC Update - Sample Residential Bill

	RATE SCHEDULE R							
	Existing Rate		Proposed Rate (50%)		Proposed Rate (75%)		Proposed Rate (100%)	
KWH		1,000		1,000		1,000		1,000
Monthly Charge	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
Non-Fuel Energy Charge								
First 500 KWH	0.069550	34.78	0.069550	34.78	0.069550	34.78	0.069550	34.78
Over 500 KWH	0.086870	43.44	0.086870	43.44	0.086870	43.44	0.086870	43.44
Emergency Water-well charge	0.002790	1.40	0.002790	1.40	0.002790	1.40	0.002790	1.40
Insurance Charge	0.000000	-	0.000000	-	0.000000	-	0.000000	-
Working Capital Fund Surcharge	0.000000	-	0.000000	-	0.000000	-	0.000000	-
Total Electric Charge before Fuel Recovery Charges		94.61		94.61		94.61		94.61
Fuel Recovery Charge	<b>0.117718</b>	117.72	<b>0.142881</b>	142.88	<b>0.153970</b>	153.97	<b>0.165062</b>	165.06
Total Electric Charge		<u>\$212.32</u>		<u>\$ 237.49</u>		<u>\$ 248.58</u>		<u>\$ 259.67</u>
Increase/(Decrease) in Total Bill				<u>\$ 25.16</u>		<u>\$ 36.25</u>		<u>\$ 47.34</u>
% Increase/(Decrease) in Total Bill				11.9%		17.1%		22.3%
% Increase/(Decrease) in LEAC rate				21.4%		30.8%		40.2%







### Timeline of Events for GPA's Integrated Resource Plan (IRP) & 180 MW New Generation Power Plant

	DATE	TOPIC	DESCRIPTION
1.0	DECEMBER 2008	The Guam Public Utility Commission (PUC) approved GPA's 2008 Integrated Resource Plan (IRP). The plan is an open dialogue between GPA and its stakeholders to determine the best strategies for the type, amount and timing of new resource acquisitions to meet future electrical loads.	<ul style="list-style-type: none"> <li>▪ The IRP approval had conditions for GPA to investigate the economics of the liquefied natural gas fuel diversification strategy, investment plan for sea water air conditioning project, and to comply with protocols identified in the MOU for IRP implementation.</li> <li>▪ Prior to approval by PUC, various stakeholders meetings/presentations were held to inform the public about GPA's IRP process and renewable energy initiatives:               <ul style="list-style-type: none"> <li>○ Stakeholder Meeting 1 – October 18, 2007</li> <li>○ Stakeholder Meeting 2 – November 29, 2007</li> <li>○ Stakeholder Meeting 3 – February 1, 2008</li> <li>○ Stakeholder Meeting 4 – April 4, 2008</li> </ul> </li> </ul>
2.0	APRIL 2012	IRP update – GPA initiated the 2012 IRP update with a set of stakeholder meetings in April 25, 2012 GPA presented several topics to summarize the drivers impacting energy resource requirements and costs.	<ul style="list-style-type: none"> <li>▪ The topics presented at the stakeholder meetings include:               <ul style="list-style-type: none"> <li>○ Demand Forecasting</li> <li>○ Demand Side Management &amp; Smart Grid</li> <li>○ Environmental Compliance Issues</li> <li>○ Existing Supply Side Resource</li> <li>○ Supply Side Options and Renewable Energy Progress</li> <li>○ Fuel</li> </ul> </li> </ul>

	DATE	TOPIC	DESCRIPTION
3.0	JULY 2013	GPA filed the 2013 IRP to the PUC and PUC approved it conditionally requiring GPA to submit a detailed information in the form of a Resource Implementation Plan (RIP)	<ul style="list-style-type: none"> <li>▪ The Resource Implementation Plan (RIP) was to address the following issues:               <ul style="list-style-type: none"> <li>○ System Reliability &amp; Plant Life Extension</li> <li>○ Compliance with USEPA Emissions Regulations</li> <li>○ Renewable Energy Integration</li> <li>○ Detailed Implementation Schedule</li> <li>○ Projected project expenditures consistent with project schedule</li> <li>○ Identification of key decision-making milestones, criteria, etc.</li> </ul> </li> </ul>
4.0	NOVEMBER 2013	CCU Resolution (Resolution 2013-50) was approved and adopted on Nov 12 <sup>th</sup> ; additional studies were conducted to further refine the IRP recommendations.	<ul style="list-style-type: none"> <li>▪ The resolution authorized GPA to proceed with implementing the following:               <ul style="list-style-type: none"> <li>○ Retirement of Tanguisson 1 &amp; 2 Power Plant by 2016</li> <li>○ New Generation Units by 2019</li> <li>○ New Fuel Supply by 2021</li> </ul> </li> <li>▪ On Nov 27<sup>th</sup> GPA filed with the PUC the IRP Implementation Strategy Decision which outlined key decisions and milestones critical to developing the Resource Implementation Plan (RIP).</li> </ul>
5.0	APRIL 2014	GPA Integrated Resource Plan (IRP) Forum was held on April 14, 2014	<ul style="list-style-type: none"> <li>▪ Topics discussed during the IRP forum include:               <ul style="list-style-type: none"> <li>○ Renewables</li> <li>○ Energy Storage</li> <li>○ Fuel and New Power Generation</li> <li>○ Financing for LNG</li> <li>○ Potential Contracts &amp; Legal Structures</li> </ul> </li> </ul>
6.0	OCT 2014	CCU Resolution (Res No. 2014-48) authorized GPA to proceed with the Implementation of the IRP and petition the PUC for the approval of procurement of New Generation combined cycle units.	<ul style="list-style-type: none"> <li>▪ The authorization allows GPA to develop an acquisition strategy for new generation which includes approximately 120 MW of dual fired combined cycle generation and option for an additional 60 MW of dual fired combined cycle generation.</li> <li>▪ It also authorizes management to pursue and integrate utility scale renewable energy plants into GPA's generation profile and to evaluate and implement Demand Side Management programs.</li> </ul>

	DATE	TOPIC	DESCRIPTION
7.0	JAN 2015	PUC deferred GPA's petition for the approval of procurement of new generation combined cycle units and to proceed with Implementation of the Resource Implementation Plan (RIP)	<ul style="list-style-type: none"> <li>▪ PUC concluded that GPA did not present sufficient evidence to justify the need for a new combined cycle generation unit.</li> <li>▪ Further consideration on the petition was deferred pending specific and complete information from GPA as previously requested by PUC related to the IRP and a July 2013 order.</li> <li>▪ PUC has found the information provided by GPA (filed in Nov 2013) in response to the July 2013 order to be generally lacking in at best consistency with its presentations to the CCU and at worst completeness of necessary analysis.</li> <li>▪ Further discussions and collaboration is needed between the PUC Administrative Law Judge (ALJ), Lummus Consultants and GPA to develop updated analysis related to the need for new combined cycle or other types of capacity.</li> <li>▪ GPA was ordered to submit a revised Resource Implementation Plan (RIP) to the PUC that includes all provisions previously ordered in the July 2013 PUC order.</li> </ul>
8.0	MARCH 2015	CCU Resolution (Res No. 2015-21) authorized GPA to petition the PUC for approval of consulting services for implementing USEPA Compliance.	<ul style="list-style-type: none"> <li>▪ The authorization allows GPA to implement its proposed compliance plan which includes procurement, contracting, construction and commissioning support for 180 MW combined cycle power plant.</li> </ul>
9.0	MAY 2015	PUC deferred GPA's petition for consulting services implementing USEPA Compliance.	<ul style="list-style-type: none"> <li>▪ PUC decided to defer its approval of GPA's petition for consulting services for its proposed compliance plan which includes procurement, contracting, construction and commissioning support for 180 MW combined cycle power plant.</li> </ul>
10	AUGUST 2015	On August 31 <sup>st</sup> , GPA experienced a major failure of the Cabras 3 & 4 Power Plants when an explosion and fire occurred.	<ul style="list-style-type: none"> <li>▪ The explosion resulted in the loss of 78MW of base load capacity. The loss of two Cabras power plants only exacerbated our power situation and lack of generation. GPA's strategy moved from a planning to a procurement approach; GPA must work aggressively to procure the 180 MW combined cycle power plant.</li> </ul>

	DATE	TOPIC	DESCRIPTION
11	OCTOBER 2015	PUC considered the impact of the loss of Cabras 3 & 4 Power Plants and the need for additional generation reserve.	<ul style="list-style-type: none"> <li>▪ To further Support GPA's request for 180MW of new generation capacity, the PUC set conditions and required GPA to provide additional information as follows:               <ul style="list-style-type: none"> <li>○ Provide third party condition assessment of the Cabras 1 &amp; 2 Power Plant</li> <li>○ Provide customer rate impact of new capacity</li> <li>○ Initiate the Demand Side Management (DSM) Program</li> <li>○ Evaluate additional renewables into the GPA generation plan</li> </ul> </li> </ul>
12	DECEMBER 2015	PUC ordered GPA under Docket 15-05 to update the IRP in consideration of the Cabras 3 & 4 power plant explosion of August 31, 2015.	<ul style="list-style-type: none"> <li>▪ The PUC order requires the IRP to include or address the following by <i>Feb 26, 2016</i> :               <ul style="list-style-type: none"> <li>○ How much new generation (MW) should be procured?</li> <li>○ What size units should be procured?</li> <li>○ Should technology be specifically for Combined Cycle (CC) or be broader and let proponent specify?</li> <li>○ What should the fuel source for new units be?</li> </ul> </li> </ul>
13	MAY 2016	On May 24, 2016 GPA filed an update by the CCU on the Integrated Resource Plan (IRP)	<ul style="list-style-type: none"> <li>▪ GPA's current plan is to retire the Cabras 1 &amp; 2 Steam Power Plants no later than July 1, 2021. Upon the completion of the construction of 180 MW of dual fired new generation, GPA plans to retire the Cabras 1 &amp; 2 power plant.</li> <li>▪ Although the IRP looks out 30 years, GPA's request for approval concentrates on actions over the next 5 years.</li> <li>▪ CCU Resolution (Resolution No. 2016-36) authorized to petition the PUC for approval of the plan to acquire up to 180 MW of dual fired combined cycle units and retire Cabras 1, 2, 3 &amp; 4 units by July 1, 2021.</li> <li>▪ GPA provided PUC with "estimates" as to rate impact from its proposed procurement. It has developed both "High and Low Capital of Cost Estimates" for insurance settlements of proceeds for Cabras 3 &amp; 4 claim.</li> </ul>

	DATE	TOPIC	DESCRIPTION
14	JULY 2016	GPA completed its response to the October 2015 PUC order	<ul style="list-style-type: none"> <li>▪ GPA completed its response which included a Life Assessment study of the Cabras 1 &amp; 2</li> <li>▪ Expanded the Demand Side Management (DSM) program</li> <li>▪ Completed a Time of Use Study</li> <li>▪ Provided a Customer Rate Impact summary</li> <li>▪ Updated the IRP results to include the following:               <ul style="list-style-type: none"> <li>○ Updated fuel and load forecasts</li> <li>○ Life Assessment report of the MEC Power Plant</li> <li>○ Update to renewable integration with regards to Phase II</li> <li>○ Update on the lease of Navy properties for solar photovoltaic (PV) development</li> <li>○ Evaluation of energy storage for increased PV penetration</li> </ul> </li> </ul>
15	OCTOBER 2016	PUC Administrative Law Judge (ALJ) conducted public hearings on GPA's new generation request to solicit public comment and testimony. GPA provided a presentation on its 2016 Integrated Resource Plan (IRP) which includes the acquisition of new generation resources up to 180 MW in capacity.	<p style="text-align: center;"><b><u>OCTOBER 4-6, 2016:</u></b></p> <ul style="list-style-type: none"> <li>▪ PUC Stakeholder Meetings &amp; Presentation to the Public</li> <li>▪ Dates and Location are as follows:               <ul style="list-style-type: none"> <li>○ October 4, 2016 – Hagatna (PUC, GCIC Bldg)</li> <li>○ October 5, 2016 – Dededo Senior Citizen's Center</li> <li>○ October 6, 2016 – Agat Community Center</li> </ul> </li> <li>➤ <u>October 4<sup>th</sup> - PUC ALJ Questions:</u> <ol style="list-style-type: none"> <li>1. Approximate cost of 180MW of new generation</li> <li>2. How will cost be paid for of 180MW?</li> <li>3. Additional costs of fuel line, land purchase etc.?</li> <li>4. How Cabras insurance proceeds will be applied to costs?</li> <li>5. Potential rate impact?</li> <li>6. Recapitalization/Refunding of existing bonds</li> <li>7. Issuance of new bonds</li> </ol> </li> </ul>

	DATE	TOPIC	DESCRIPTION
15	OCTOBER 2016	<p>All of the testimony supported the procurement by GPA of at least some new combined cycle generation capacity.</p> <p><i>PUC approves GPA's Petition (under PUC Docket 15-05) for approval of Procurement for a New Combined Cycle Plant up to 180 MW and to Proceed with Implementation of the IRP.</i></p>	<ul style="list-style-type: none"> <li>➤ <u>October 5<sup>th</sup></u> - No questions only presentation to the Mayor and one member of the public</li> <li>➤ <u>October 6<sup>th</sup></u> – Questions/Comments from two members of the public (Mr. Babauta &amp; Mr. Ivan Matak) <ul style="list-style-type: none"> <li>• <b><u>Mr. Babauta's Questions/Comments:</u></b> <ul style="list-style-type: none"> <li>✓ How does this affect Southern Guam?</li> <li>✓ What is the status of the Cabras ins. settlement?</li> <li>✓ How will this be done? Will it be privatized?</li> <li>✓ What's the rate impact projection? GPA buying power from private power co.</li> <li>✓ Mr. Babauta fully supports the construction of new power plant. He recommends GPA to fully privatize the power plant, because of history of unstable power he's experienced over the years. Lack of stable power is a big issue.</li> <li>✓ Economic growth, enhanced competition for the economy to better compete with other tourist destination.</li> <li>✓ Impact on small business and quality of life</li> <li>✓ Need better leadership and training for employees</li> </ul> </li> <li>• <b><u>Mr. Ivan Matak</u></b> <ul style="list-style-type: none"> <li>✓ Against privatizing GPA, what will prevent an increase in power rates for the island if power plant is privatized? How do we stop them from increasing the rates? We cannot support high cost of power.</li> </ul> </li> </ul> </li> <li>▪ During its October 27<sup>th</sup> meeting, <i>PUC authorized GPA to procure a combined cycle plant of up to 180 MW.</i></li> <li>▪ The 180 MW combined cycle generation capacity shall be based upon the Independent Power Producer (IPP) model as a Build Operate Transfer (BOT)</li> <li>▪ GPA is authorized to procure an Engineering, Procurement and Construction Management contractor for a new combined cycle plant.</li> </ul>

	DATE	TOPIC	DESCRIPTION
16	NOVEMBER 2016	<p>An Informational Briefing was held on November 1, 2016 for USEPA</p> <p>GPA issues an RFP for Engineering, Procurement and Construction Management (EPCM) Contract</p> <p>CCU authorizes GPA to acquire land for new power plant</p>	<ul style="list-style-type: none"> <li>The information presented to USEPA included: <ul style="list-style-type: none"> <li>Generation capacity before August 31, 2016 explosion</li> <li>Situation after the Cabras 3 &amp; 4 explosion</li> <li>Capacity recovery plan outlined</li> <li>Current status of recovery efforts</li> <li>Interim plan for next 4 years</li> <li>Integrated Resource Plan (IRP) thru 2021 and beyond</li> </ul> </li> <li>On November 10<sup>th</sup> GPA issued RFP-17-001 for Engineering, Procurement and Construction Management (EPCM) Contract for the procurement development of an IPP contract for new generation capacity and to represent GPA as owner's engineer support in the construction of the new power plant.</li> <li>On November 22<sup>nd</sup> CCU passes Resolution 2016-66 which authorizes GPA to acquire land for new power plant.</li> </ul>
17	DECEMBER 2016	Several proposals received from the RFP and EPCM Contractor selected	<ul style="list-style-type: none"> <li>On Dec 19<sup>th</sup> Stanley Consultants, Inc. was determined to be the most qualified firm to be the EPCM to support the construction of a new 180 MW power plant.</li> </ul>
18	JANUARY 2017	<i>CCU Resolution (Res No. 2017-01) authorized GPA to Proceed with a Contract with Stanley Consultants, Inc.</i>	<ul style="list-style-type: none"> <li>CCU authorized the General Manager to contract with Stanley Consultants, Inc. up to \$750,000 for the procurement development of the new generation IPP contract.</li> </ul>
19	FEBRUARY 2017	GPA issues Land Acquisition Bid	<ul style="list-style-type: none"> <li>On February 2 GPA issued GPA-042-17 for land acquisition for the new power plant. Due to non-responsive bids, this bid was cancelled in April.</li> </ul>
20	MAY 2017	GPA meets with Guam Ancestral Lands Commission on acquiring land for new power plant	<ul style="list-style-type: none"> <li>On May 24, with CCU approval, GPA presents to GALC a proposal to acquire property adjacent to the proposed GWA Secondary Water Treatment Facility site.</li> </ul>

	DATE	TOPIC	DESCRIPTION
21	JUNE 2017	GPA issues Solicitation of Interest to acquire land for new power plant	On June 13 <sup>th</sup> GPA issued notice for a Solicitation of Interest to property owners in the Harmon area regarding GPA's interest in acquiring property. This closed on July 3 <sup>rd</sup> .
22	JULY – DEC 2017	Community Outreach for the New 180 MW Power Plant	<ul style="list-style-type: none"> <li>▪ Presentations to various community organizations and government entities on GPA's 180 MW Power Plant project continues, they include:               <ul style="list-style-type: none"> <li>○ Guam Visitor's Bureau</li> <li>○ Dededo Municipal Planning Council (MPC) &amp; Office of the Mayor</li> <li>○ Rotary Club of Tumon Bay</li> <li>○ Guam Chamber of Commerce</li> <li>○ Water and Environmental Research Institute of the Western Pacific (WERI)</li> <li>○ Society of American Military Engineers</li> <li>○ Guam Hotel &amp; Restaurant Assn (GHRA)</li> <li>○ Village Meetings</li> </ul> </li> </ul>
23	SEPTEMBER 2017	CCU Resolution (Res No. 2017-39) authorized GPA to petition the PUC for the approval of the Bid Process for 180 MW Power Plant	<ul style="list-style-type: none"> <li>▪ The authorization allows GPA to petition the PUC for the approval of the multi-step bid process and to initiate the IPP Request for Qualifications (RFQ) to establish a bidders list.</li> </ul>
24	OCTOBER 2017	CCU Resolution (Res No. 2017-42) authorized GPA to Acquire Real Property for 180MW Power Plant	<ul style="list-style-type: none"> <li>▪ The authorization allows GPA to execute the real property purchase agreement up to 60 acres of unimproved real property to construct and operate 180MW power generation plant.</li> <li>▪ The CCU authorizes GPA to commence rezoning efforts.</li> <li>▪ The authorization also allows GPA to petition the PUC for approval of the real property purchase.</li> </ul>
25	NOV-DEC 2017	Rezoning Process  Outreach to surrounding landowners & Updates to Village and Stakeholders	<ul style="list-style-type: none"> <li>▪ With authorization by the CCU, GPA will begin the rezoning process</li> <li>▪ GPA will continue its outreach efforts to surrounding landowners and continue updates to village &amp; community stakeholders.</li> </ul>





as of 11/22/2017

# Q&A from Informational Briefings

## Summary

### GUAM VISITOR'S BUREAU

(Vice Chairman Monte Mesa & Vice President Tony Muna, Jr.) 7/27/17

**EXISTING PLANTS.** Asked if the Cabras and Tanguisson areas be redeveloped for something other than power generation. MM suggested yacht/small harbor, recreational area, etc. for Cabras area, and luxury boutique hotel for Tanguisson.

**FUEL.** Concerned about the safety of natural gas handling and storage. Discussed options, including FSRU and pipeline. LNG storage tanks at Ukudu not anticipated.

**AESTHETIC.** Commented that plant design should be aesthetic with surrounding community. Discussed examples of modern plant design, smoke stack, transmission lines, etc.

**COST.** How will this project affect power rates? Asked whether insurance proceeds from Cabras 3 & 4 will offset construction costs. Asked about the cost of additional water treatment.

### GOVERNOR CALVO, SENIOR STAFF & ECONOMIC DEVELOPMENT SUBCABINET DIRECTORS

8/3/17

**LEGAL CONCERNS:** Governor asked if GPA entered into a consent decree with USEPA. Concerned that current H-2B situation will delay GPA's planned CIPs.

**PROPOSED BID:** Governor asked the definition of "flexible generation" and "combined cycle"

**ENVIRONMENTAL CONCERNS:** Concerned that new plant will pollute the aquifer. How will emissions affect the Ukudu and Tumon areas? Opined that this is main concern of tourism industry.

**RENEWABLE ENERGY:** Why build a traditional power plant when trend is toward renewable energy? How productive will the Hanwha/KEPCO PV systems be? Asked about other renewables (geothermal and wind).

**COST:** What is the total CIP over what period of time? What is the cost of energy storage batteries?

### DEDEDO MUNICIPAL PLANNING COUNCIL & MAYOR SAVARES

8/9/17

**FUEL.** Is there a supply and demand for natural gas? Where would GPA purchase natural gas from? *JB response: Clarified that it's LNG. Yes, supply and demand are present. The US is the biggest producer. Australia, Indonesia and China also produce and export.*

as of 11/22/2017

*GENERAL PLANNING.* Does the military produce their own power? *JB response: No, GPA provides power island wide, although Orote is a standby generator.* What if the military needs more power? *JB response: We've built that into our considerations.*

*EXISTING PLANTS.* What is the timeline to retire Cabras 1 & 2? *JB response: approximately 6 mos after commissioning of the new plant.*

*PROPOSED BID.* Is a 2021 a realistic time frame for the construction and commissioning? *JB response: Yes.*

## ROTARY CLUB OF TUMON BAY

9/5/17

\*no questions related to the planned 180MW power generation plant\*

## GUAM CHAMBER OF COMMERCE (General Membership Meeting)

9/27/17

*ENVIRONMENTAL CONCERNS.* (Jeff Jones) What type of emissions will this produce? Same type of emissions from Cabras? *JB response: No. Consider Dededo and Macheche power plants; emissions level is minimal and unnoticeable. Emission plume is dependent on stack height. Noise levels will be controlled.*

*SUPPORTING INFRASTRUCTURE.* (Roger Crouthamel) Will GPA use the existing pipeline? *JB response: GPA will construct a new pipeline for ULSD using the same easements. It is considering a new pipeline for LNG although we have not formalized the decision. Discussed regasification of LNG.*

*RENEWABLE ENERGY.* (Matthews Pothen) How many net metering customers does GPA have? *JB response: 1400 customers contributing 15MW in the daytime. 25MW utility scale PV contributes to the system. Explained how weather affects PV production. Discussed battery storage project.*

*RENEWABLE ENERGY.* (Matthews Pothen) Is there difficulty adding more net metering customers? *JB response: No. GPA has several utility renewable projects its preparing for bid, including Phase III. GPA is purchasing energy from utility-scale renewable IPPs at 8 cents/MW.*

## WERI

(Dr. John Jenson, Director) 10/11/17

*ENVIRONMENTAL CONCERNS.* Confirmed that directional flow from lot will be toward coast, not toward basal/parabasal of aquifer.

*FUEL.* Opined interest in LNG. Inquired about fuel lines and storage.

as of 11/22/2017

## SOCIETY OF AMERICAN MILITARY ENGINEERS (General Membership Meeting)

10/19/17

*RENEWABLE ENERGY.* (John Robertson, AmOrient) Is wind energy feasible for Guam? Is the existing wind turbine working? *The turbine has existing 50 kWh so far, but wind energy doesn't look as feasible as solar PV at this time.*

*RENEWABLE ENERGY.* (Zenon Bollinger) Will the transmission lines associated with GPA's Phase II renewable energy project be owned by GPA? *The transmission lines will be turned over to GPA.*

*RENEWABLE ENERGY.* Has GPA considered the use of fuel cells to store energy? *Not at this point.*

*PROPOSED BID.* (Tor Gudmundsen) Will new fuel pipelines be part of the new power plant project? *New pipelines will need to be constructed, although that bid might be separate from the main power plant bid.*

## GUAM CONTRACTORS' ASSOCIATION (General Membership Meeting)

11/15/17

*SUPPORTING INFRASTRUCTURE.* Will GPA seek additional easements for transmission and fuel lines? *JB response: GPA will utilize existing easements, and will request additional easements only where necessary.*

*COST.* (Rey Llaneta) What is the estimated total cost of this plant? *\$400M estimated.* How will GPA pay for this? *Recapped presentation points highlighting operations cost reductions, insurance proceeds, and refunding of existing bonds.*

*PROPOSED BID.* (Rey Llaneta) Has GPA considered a public-private partnership? *Yes, seeking an IPP.* Is GPA seeking interested vendors? *Yes. 10 – 15 companies/groups have expressed interest in this project.* When will GPA issue the bid? *GPA actively seeking CCU and PUC approvals for bid issuance in late 2017 or early 2018.*

## GUAM HOTEL & RESTAURANT ASSOCIATION (General Membership Meeting)

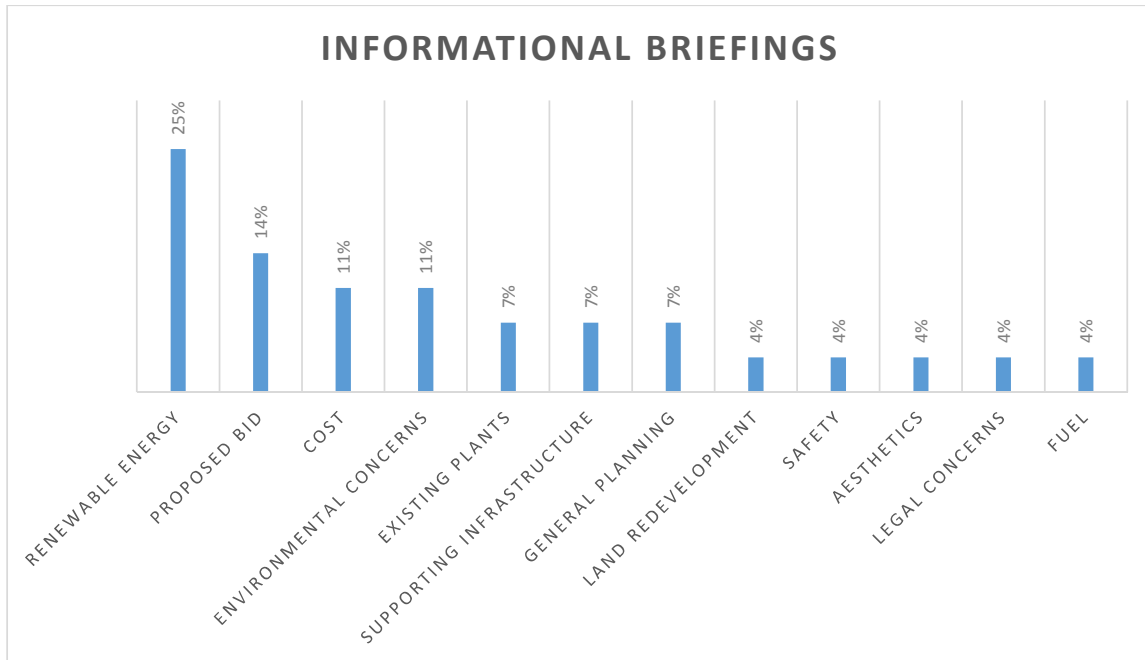
11/16/17

*RENEWABLE ENERGY.* (Joe Blas, Nikko) Is the wind turbine at Cotal generating energy? *Yes, the energy it produces feeds into the grid. It has saved GPA 50k barrels of oil thus far.*

*GENERAL PLANNING.* (Frank Kenney, Jamaican Grill) Is GPA meeting its goals and objectives? What are GPA's forward-looking plans? *GPA will meet the renewable energy legislative goals sooner than required. This new plant will allow GPA and the community to build and expand renewable and sustainable energy projects.*

*EXISTING PLANTS.* (Mary Rhodes, GHRA) What will happen with the Aggreko units? *We may use the individual units for emergency and/or supplemental needs at water wells, emergency shelters, etc.*

as of 11/22/2017



as of 11/22/2017

## Q&A By Category

### RENEWABLE ENERGY

1. Why build a traditional power plant when trend is toward renewable energy? How productive will the Hanwha/KEPCO PV systems be? Asked about other renewables (geothermal and wind).
2. How many net metering customers does GPA have? *JB response: 1400 customers contributing 15MW in the daytime. 25MW utility scale PV contributes to the system. Explained how weather affects PV production. Discussed battery storage project.*
3. Is there difficulty adding more net metering customers? *JB response: No. GPA has several utility renewable projects its preparing for bid, including Phase III. GPA is purchasing energy from utility-scale renewable IPPs at 8 cents/MW.*
4. Is wind energy feasible for Guam? Is the existing wind turbine working? *The turbine has existing 50 kWh so far, but wind energy doesn't look as feasible as solar PV at this time.*
5. Will the transmission lines associated with GPA's Phase II renewable energy project be owned by GPA? *The transmission lines will be turned over to GPA.*
6. Has GPA considered the use of fuel cells to store energy? *Not at this point.*
7. Is the wind turbine at Cotal generating energy? *Yes, the energy it produces feeds into the grid. It has saved GPA 50k barrels of oil thus far.*

### PROPOSED BID

1. Governor asked the definition of "flexible generation" and "combined cycle"
2. Is a 2021 a realistic time frame for the construction and commissioning? *JB response: Yes.*
3. Will new fuel pipelines be part of the new power plant project? *New pipelines will need to be constructed, although that bid might be separate from the main power plant bid.*
4. Has GPA considered a public-private partnership? *Yes, seeking an IPP. Is GPA seeking interested vendors? Yes. 10 – 15 companies/groups have expressed interest in this project. When will GPA issue the bid? GPA actively seeking CCU and PUC approvals for bid issuance in late 2017 or early 2018.*

### COST

1. How will this project affect power rates? Asked whether insurance proceeds from Cabras 3 & 4 will offset construction costs. Asked about the cost of additional water treatment.
2. What is the total CIP over what period of time? What is the cost of energy storage batteries?
3. What is the estimated total cost of this plant? *\$400M estimated. How will GPA pay for this? Recapped presentation points highlighting operations cost reductions, insurance proceeds, and refunding of existing bonds.*

### ENVIRONMENTAL CONCERNS

1. Concerned that new plant will pollute the aquifer. How will emissions affect the Ukudu and Tumon areas? Opined that this is main concern of tourism industry.
2. What type of emissions will this produce? Same type of emissions from Cabras? *JB response: No. Consider Dededo and Macheche power plants; emissions level is minimal and unnoticeable. Emission plume is dependent on stack height. Noise levels will be controlled.*
3. Confirmed that directional flow from lot will be toward coast, not toward basal/parabasal of aquifer.

as of 11/22/2017

#### EXISTING PLANTS

1. Asked if the Cabras and Tanguisson areas be redeveloped for something other than power generation. MM suggested yacht/small harbor, recreational area, etc. for Cabras area, and luxury boutique hotel for Tanguisson.
2. What is the timeline to retire Cabras 1 & 2? *JB response: approximately 6 mos after commissioning of the new plant.*
3. What will happen with the Aggreko units? *We may use the individual units for emergency and/or supplemental needs at water wells, emergency shelters, etc.*

#### SUPPORTING INFRASTRUCTURE

1. Will GPA use the existing pipeline? *JB response: GPA will construct a new pipeline for ULSD using the same easements. It is considering a new pipeline for LNG although we have not formalized the decision.* Discussed regasification of LNG.
2. Will GPA seek additional easements for transmission and fuel lines? *JB response: GPA will utilize existing easements, and will request additional easements only where necessary.*

#### GENERAL PLANNING

1. Does the military produce their own power? *JB response: No, GPA provides power island wide, although Orote is a standby generator.* What if the military needs more power? *JB response: We've built that into our considerations.*
2. Is GPA meeting its goals and objectives? What are GPA's forward-looking plans? *GPA will meet the renewable energy legislative goals sooner than required. This new plant will allow GPA and the community to build and expand renewable and sustainable energy projects.*

#### FUEL

1. Concerned about the safety of natural gas handling and storage. Discussed options, including FSRU and pipeline. LNG storage tanks at Ukudu not anticipated.
2. Opined interest in LNG. Inquired about fuel lines and storage.

#### AESTHETICS

1. Commented that plant design should be aesthetic with surrounding community. Discussed examples of modern plant design, smoke stack, transmission lines, etc.

#### LEGAL CONCERNS

1. Governor asked if GPA entered into a consent decree with USEPA. Concerned that current H-2B situation will delay GPA's planned CIPs.



**GUAM POWER AUTHORITY**  
ATURIDÁT ILEKTRESEDÁT GUAHAN  
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

## **Issues for Decision**

### **GPA Resolution No. 2017-43**

#### **AUTHORIZING THE MANAGEMENT OF THE GUAM POWER AUTHORITY TO ENTER INTO AN AGREEMENT EXTENSION TERM WITH TRISTAR TERMINALS GUAM, INC. FOR THE DOCK FACILITY, PIPELINE FACILITIES AND RFO STORAGE**

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

The Guam Power Authority ("GPA" or "Authority") utilizes the services of Tristar Terminals Guam, Inc. ("Tristar" or "TTGI") pier facility for the docking of ocean freight vessels delivering fuel to GPA facilities through a Dock Facility User Agreement.

GPA utilizes the Tristar fuel pipeline facilities for the delivery and transport of Fuel Oil to and from GPA's fuel storage facilities through a Pipeline Agreement.

GPA utilizes the Tristar fuel storage facilities for GPA's additional RFO storage requirements through a RFO Storage Lease Agreement.

TTGI is the sole service provider for the Dock Facility User Agreement, Pipeline Agreement, and RFO Storage Lease Agreement (or "3 Agreements"). The current contracts for the 3 Agreements will expire on August 31, 2018.

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

The fee schedules for the Pipeline Agreement and RFO Storage Lease Agreement for the 4 year extension period will be at the same annual incremental rate of 4% based on standard Consumer Price Index changes and increased operational cost; and

The estimated total expenses for the 3 Agreements for the 4-year extension period as shown in Exhibit A are as follows: \$6,324,864 for the Dock Agreement; \$2,138,024 for the Pipeline Agreement; and \$6,674,891 for the RFO Storage Agreement.

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

GPA and TTGI have negotiated for an extension of the 3 Agreements for up to 4 years, renewable annually. The Dock Agreement fee schedule shall remain the same until March 31, 2019.

Extension of the Agreement and the fee schedule thereof is subject to change and is incumbent upon Tristar's contract renewal with the Port Authority of Guam (PAG) beyond March 31, 2019.

##### **What is its funding source?**

LEAC



## EXHIBIT A

TRISTAR AGREEMENTS - Estimated Expenses						
Fee Schedule	Parameters			Contract Extension		
				Sep2018-Aug2022		
					Annual	4-Year Total
				\$/Shipment	\$/yr	\$
<b>A. Dock Agreement</b>						
1. Dock Operator O.T. Fee	Outside 0800H-1600H on Weekdays	\$38.00	per manhour	\$7,296.00	\$80,256.00	\$321,024.00
(Minimum of 4 Operators)	All hrs on weekdays & holidays	48	hrs/shipment			
		11	ships/yr			
2. Excess Laytime	0-36 hrs upon start of discharge	\$0.00	per Hour			
	Over 36 hrs & less than 72 hrs	\$1,000.00	per Hour			
	Over 72 hrs	\$600.00	per Hour			
	Excess hrs	12	hrs/shipment	\$12,000.00	\$132,000.00	\$528,000.00
		11	shipment/yr			
3. Imports (RFO Receiving)						
a. Throughput Fee	RFO received (Gross) - PAG Fee	\$0.50	\$/bbl	\$120,000.00	\$1,320,000.00	\$5,280,000.00
		240,000	bbl/shipment			
		11	shipment/yr			
4. Exports (Bunkering)						
		3000	bbl/shipment			
		24	shipment/yr			
a. Port Royalty Fee	RFO delivered (Gross) - PAG fee	\$0.66	\$/bbl	\$1,980.00	\$47,520.00	\$190,080.00
b. Maritime Security Fee	RFO delivered (Gross) - PAG Fee	\$0.02	\$/bbl	\$60.00	\$1,440.00	\$5,760.00
<b>SUB-TOTAL</b>				<b>\$141,336.00</b>	<b>\$1,581,216.00</b>	<b>\$6,324,864.00</b>
<b>B. Pipeline Agreement</b>					Annual	4-Year Total
1. Pipeline Rental (B-Line)	Pipeline from Dock to Navy tie-in			\$/Month	\$/yr	\$
Sep 2018- Aug 2019				\$41,956.95	\$503,483.39	4%
Sep 2019- Aug 2020				\$43,635.23	\$523,622.72	4%
Sep 2020- Aug 2021				\$45,380.64	\$544,567.63	4%
Sep 2021- Aug 2022				\$47,195.86	\$566,350.34	4%
<b>SUB-TOTAL</b>				<b>\$44,542.17</b> avg	<b>\$534,506.02</b> avg	<b>\$2,138,024.08</b>
<b>C. Storage Agreement</b>	Based contracted storage capacity				Annual	4-Year Total
1. Fixed Lease Fees				\$/Month*	\$/yr	\$
Sep 2018- Aug 2019	Tk1902	0	bbls	\$107,251.80	\$1,287,021.64	4%
Sep 2019- Aug 2020	Tk1903	278,500	bbls	\$111,541.88	\$1,338,502.50	4%
Sep 2020- Aug 2021	Tk1910	0	bbls	\$116,003.55	\$1,392,042.60	4%
Sep 2021- Aug 2022	Tk1911	37,000	bbls	\$120,643.69	\$1,447,724.30	4%
	<b>*Total storage capacity</b>	<b>315,500</b>	<b>bbls</b>			
2. Bunkering Fee	(P/L fee from tanks to navy tie-in)					
	RFO delivered (Net)	\$4.20	\$/bbl	\$12,600.00	\$302,400.00	\$1,209,600.00
<b>SUB-TOTAL</b>				<b>\$93,608.18</b> avg	<b>\$1,153,538.21</b> avg	<b>\$6,674,891.04</b>
				<b>\$279,486.35</b> avg	<b>\$3,269,260.23</b> avg	<b>\$15,137,779.12</b>
				<b>\$/Month</b>	<b>\$/yr</b>	<b>Total for 4 Yrs</b>



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

RESOLUTION NO. 2017-43

**AUTHORIZING THE MANAGEMENT OF THE GUAM POWER AUTHORITY (GPA)  
TO ENTER INTO AN AGREEMENT EXTENSION TERM WITH TRISTAR TERMINALS GUAM, INC. FOR THE  
DOCK FACILITY, PIPELINE FACILITIES AND RFO STORAGE**

**WHEREAS**, the Guam Power Authority ("GPA" or "Authority") utilizes the services of Tristar Terminals Guam, Inc. ("Tristar" or "TTGI") pier facility for the docking of ocean freight vessels delivering fuel to GPA facilities through a **Dock Facility User Agreement**; and

**WHEREAS**, GPA utilizes the Tristar fuel pipeline facilities for the delivery and transport of Fuel Oil to and from GPA's fuel storage facilities through a **Pipeline Agreement**; and

**WHEREAS**, GPA utilizes the Tristar fuel storage facilities for GPA's additional RFO storage requirements through a **RFO Storage Lease Agreement**; and

**WHEREAS**, TTGI is the sole service provider for the **Dock Facility User Agreement, Pipeline Agreement, and RFO Storage Lease Agreement** (or "3 Agreements"); and

**WHEREAS**, the current contracts for the 3 Agreements will expire on August 31, 2018; and

**WHEREAS**, GPA and TTGI have negotiated for an extension of the 3 Agreements for up to 4 years, renewable annually; and

**WHEREAS**, the **Dock Agreement** fee schedule shall remain the same until March 31, 2019. Extension of the Agreement and the fee schedule thereof is subject to change and is incumbent upon Tristar's contract renewal with the Port Authority of Guam (PAG) beyond March 31, 2019; and

**WHEREAS**, the fee schedules for the **Pipeline Agreement and RFO Storage Lease Agreement** for the 4 year extension period will be at the same annual incremental rate of 4% based on standard Consumer Price Index changes and increased operational cost; and

**WHEREAS**, the estimated total expenses for the 3 Agreements for the 4-year extension period as shown in Exhibit A are as follows: **\$6,324,864** for the Dock Agreement; **\$2,138,024** for the Pipeline Agreement; and **\$6,674,891** for the RFO Storage Agreement; and

**WHEREAS**, TTGI is the sole service provider for the 3 Agreements; and

**WHEREAS**, GPA has determined that the contract extension period for the 3 Agreements will serve the best interest of the Authority and its ratepayers by ensuring uninterrupted supply of fuel to GPA through the use of Tristar's fuel handling facilities; and

**WHEREAS**, GPA is requesting the approval of the CCU for the **Dock Facility User Agreement, Pipeline Agreement, and RFO Storage Lease Agreement** for up to four (4) years to commence on September, 2018; and

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

The General Manager of GPA is authorized to petition the Guam Public Utilities Commission for the review and approval of the extension of the **Dock Facility User Agreement, Pipeline Agreement, and Storage Lease Agreement** with Tristar Terminal Guam, Inc.

**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 22<sup>nd</sup> day of November 2017**

**Certified by:**

**Attested by:**

\_\_\_\_\_  
**JOSEPH T. DUENAS**  
**CHAIRMAN**

\_\_\_\_\_  
**J. GEORGE BAMBA**  
**SECRETARY**

**I, J. GEORGE BAMBA**, Secretary for the Consolidated Commission on Utilities do hereby certify that the foregoing is a full, true, and correct copy of the resolution duly adopted at a regular meeting of the members of Guam's 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: \_\_\_\_\_

## EXHIBIT A

TRISTAR AGREEMENTS - Estimated Expenses						
Fee Schedule	Parameters			Contract Extension		
				Sep2018-Aug2022		
					Annual	4-Year Total
				<u>\$/Shipment</u>	<u>\$/yr</u>	<u>\$</u>
<b>A. Dock Agreement</b>						
1. Dock Operator O.T. Fee	Outside 0800H-1600H on Weekdays	\$38.00 per manhour		\$7,296.00	\$80,256.00	\$321,024.00
(Minimum of 4 Operators)	All hrs on weekdays & holidays	48 hrs/shipment				
		11 ships/yr				
2. Excess Laytime	0-36 hrs upon start of discharge	\$0.00 per Hour				
	Over 36 hrs & less than 72 hrs	\$1,000.00 per Hour				
	Over 72 hrs	\$600.00 per Hour				
	Excess hrs	12 hrs/shipment	\$12,000.00		\$132,000.00	\$528,000.00
		11 shipment/yr				
3. Imports (RFO Receiving)						
a. Throughput Fee	RFO received (Gross) - PAG Fee	\$0.50 \$/bbl	\$120,000.00		\$1,320,000.00	\$5,280,000.00
		240,000 bbl/shipment				
		11 shipment/yr				
4. Exports (Bunkering)		3000 bbl/shipment				
		24 shipment/yr				
a. Port Royalty Fee	RFO delivered (Gross) - PAG fee	\$0.66 \$/bbl	\$1,980.00		\$47,520.00	\$190,080.00
b. Maritime Security Fee	RFO delivered (Gross) - PAG Fee	\$0.02 \$/bbl	\$60.00		\$1,440.00	\$5,760.00
<b>SUB-TOTAL</b>			\$141,336.00		\$1,581,216.00	\$6,324,864.00
<b>B. Pipeline Agreement</b>					Annual	4-Year Total
1. Pipeline Rental (B-Line)	Pipeline from Dock to Navy tie-in			<u>\$/Month</u>	<u>\$/yr</u>	<u>\$</u>
Sep 2018- Aug 2019				\$41,956.95	\$503,483.39	4%
Sep 2019- Aug 2020				\$43,635.23	\$523,622.72	4%
Sep 2020- Aug 2021				\$45,380.64	\$544,567.63	4%
Sep 2021- Aug 2022				\$47,195.86	\$566,350.34	4%
<b>SUB-TOTAL</b>			\$44,542.17 avg		\$534,506.02 avg	\$2,138,024.08
<b>C. Storage Agreement</b>	Based contracted storage capacity				Annual	4-Year Total
1. Fixed Lease Fees	Tk1902	0 bbbls		<u>\$/Month*</u>	<u>\$/yr</u>	<u>\$</u>
Sep 2018- Aug 2019	Tk1903	278,500 bbbls	\$107,251.80		\$1,287,021.64	4%
Sep 2019- Aug 2020	Tk1910	0 bbbls	\$111,541.88		\$1,338,502.50	4%
Sep 2020- Aug 2021	Tk1911	37,000 bbbls	\$116,003.55		\$1,392,042.60	4%
Sep 2021- Aug 2022	*Total storage capacity	315,500 bbbls	\$120,643.69		\$1,447,724.30	4%
2. Bunkering Fee	(PIL fee from tanks to navy tie-in)					
	RFO delivered (Net)	\$4.20 \$/bbl	\$12,600.00		\$302,400.00	\$1,209,600.00
<b>SUB-TOTAL</b>			\$93,608.18 avg		\$1,153,538.21 avg	\$6,674,891.04
				\$279,486.35 avg	\$3,269,260.23 avg	\$15,137,779.12
				<u>\$/Month</u>	<u>\$/yr</u>	Total for 4 Yrs

## EXHIBIT B

TRISTAR AGREEMENTS - Fee Comparison						
Fee Schedule		Current Contract 5 Years Sep2013-Aug2018	Contract Extn 4 Years Sep2018-Aug2022	Variance/Remarks		
<b>A. Dock Agreement</b>						
<b>Fees Effective until March 31, 2019</b>				Subject to Port Fee Adjustments		
1. Dock Operator O.T. Fee per Operator (Minimum of 4 Operators) Outside 0800H-1600H on Weekdays All hrs on weedays & holidays	per Hour	\$38.00	\$38.00	\$0.00	No change	
2. Excess Laytime	per Hour	\$0.00	\$0.00	\$0.00	No change	
0-36 hrs upon start of discharge	per Hour	\$1,000.00	\$1,000.00	\$0.00	No change	
Over 36 hrs & less than 72 hrs	per Hour	\$600.00	\$600.00	\$0.00	No change	
Over 72 hrs						
3. Imports (RFO Receiving)						
a. Throughput Fee (RFO delivered-Gross)	\$/bbl	\$0.50	\$0.50	\$0.00	No change	
4. Exports (Bunkering) (RFO delivered-Gross)						
a. Port Royalty Fee	\$/bbl	\$0.66	\$0.66	\$0.00	No change	
b. Maritime Security Fee	\$/bbl	\$0.02	\$0.02	\$0.00	No change	
<b>B. Pipeline Agreement</b>						
1. Pipeline Rental Fee				(Pipeline from Dock to Navy tie-in)		
<u>5-Year Agreement</u>						
Sep 2013- Aug 2014	\$/yr	\$418,182.53				
Sep 2014- Aug 2015	\$/yr	\$433,709.83			4%	Increase
Sep 2015- Aug 2016	\$/yr	\$449,858.22			4%	Increase
Sep 2016- Aug 2017	\$/yr	\$466,652.55			4%	Increase
Sep 2017- Aug 2018	\$/yr	<u>\$484,118.65</u>			4%	Increase
Total (5-Years)		\$2,252,521.78				
<u>4-Year Extension</u>						
Sep 2018- Aug 2019	\$/yr		\$503,483.39		4%	Increase
Sep 2019- Aug 2020	\$/yr		\$523,622.72		4%	Increase
Sep 2020- Aug 2021	\$/yr		\$544,567.63		4%	Increase
Sep 2021- Aug 2022	\$/yr		<u>\$566,350.34</u>		4%	Increase
Total (4-Year Extn)			\$2,138,024.08			
<b>C. Storage Agreement</b>						
<b>1. Lease Fees</b>						
<u>5-Year Agreement</u>				Contract Capacity (bbls)	422,150	
Sep 2013- Aug 2014	\$/yr	\$1,413,023.47				
Sep 2014- Aug 2015	\$/yr	\$1,469,544.41			4%	Increase
Sep 2015- Aug 2016	\$/yr	\$1,528,326.18			4%	Increase
Sep 2016- Aug 2017	\$/yr	\$1,589,459.23			4%	Increase
Sep 2017- Aug 2018	\$/yr	<u>\$1,653,037.60</u>			4%	Increase
Total (5-Years)		\$7,653,390.89				
<u>4-Year Extension</u>				Contract Capacity (bbls)	315,500	
Sep 2018- Aug 2019	\$/yr		\$1,287,021.64		4%	Increase
Sep 2019- Aug 2020	\$/yr		\$1,338,502.50		4%	Increase
Sep 2020- Aug 2021	\$/yr		\$1,392,042.60		4%	Increase
Sep 2021- Aug 2022	\$/yr		<u>\$1,447,724.30</u>		4%	Increase
Total (4-Year Extn)			\$5,465,291.04			
<b>2. Bunkering Fee</b>						
(P/L Fee from storage to navy tie-in)						
(RFO delivered-Net)						
	\$/bbl	\$4.20	\$4.20	\$0.00	No change	

CCU Regular Meeting November 22, 2017 - NEW BUSINESS

TRISTAR AGREEMENTS - Fee Comparison

Fee Schedule		Current Contract 5 Years Sep2013-Aug2018	Contract Extn 4 Years Sep2018-Aug2022	Variance/Remarks
<b>A. Dock Agreement</b> Fees Effective until March 31, 2019				Subject to Port Fee Adjustments
1. Dock Operator O.T. Fee per Operator (Minimum of 4 Operators) Outside 0800H-1600H on Weekdays All hrs on weekdays & holidays	per Hour	\$38.00	\$38.00	\$0.00 No change
2. Excess Laytime 0-36 hrs upon start of discharge	per Hour	\$0.00	\$0.00	\$0.00 No change
Over 36 hrs & less than 72 hrs	per Hour	\$1,000.00	\$1,000.00	\$0.00 No change
Over 72 hrs	per Hour	\$600.00	\$600.00	\$0.00 No change
3. Imports (RFO Receiving) a. Throughput Fee (RFO delivered-Gross)	\$/bbl	\$0.50	\$0.50	\$0.00 No change
4. Exports (Bunkering) (RFO delivered-Gross) a. Port Royalty Fee	\$/bbl	\$0.66	\$0.66	\$0.00 No change
b. Maritime Security Fee	\$/bbl	\$0.02	\$0.02	\$0.00 No change
<b>B. Pipeline Agreement</b>				(Pipeline from Dock to Navy tie-in)
1. Pipeline Rental Fee				
5-Year Agreement				
Sep 2013- Aug 2014	\$/yr	\$418,182.53		
Sep 2014- Aug 2015	\$/yr	\$433,709.83		4% Increase
Sep 2015- Aug 2016	\$/yr	\$449,858.22		4% Increase
Sep 2016- Aug 2017	\$/yr	\$466,652.55		4% Increase
Sep 2017- Aug 2018	\$/yr	\$484,118.65		4% Increase
Total (5-Years)		\$2,252,521.78		
4-Year Extension				
Sep 2018- Aug 2019	\$/yr		\$503,483.39	4% Increase
Sep 2019- Aug 2020	\$/yr		\$523,622.72	4% Increase
Sep 2020- Aug 2021	\$/yr		\$544,567.63	4% Increase
Sep 2021- Aug 2022	\$/yr		\$566,350.34	4% Increase
Total (4-Year Extn)			\$2,138,024.08	
<b>C. Storage Agreement</b>				
1. Lease Fees				
5-Year Agreement				
Sep 2013- Aug 2014	\$/yr	\$1,413,023.47		Contract Capacity (bbls) 422,150
Sep 2014- Aug 2015	\$/yr	\$1,469,544.41		4% Increase
Sep 2015- Aug 2016	\$/yr	\$1,528,326.18		4% Increase
Sep 2016- Aug 2017	\$/yr	\$1,589,459.23		4% Increase
Sep 2017- Aug 2018	\$/yr	\$1,653,037.60		4% Increase
Total (5-Years)		\$7,653,390.89		
4-Year Extension				
Sep 2018- Aug 2019	\$/yr		\$1,287,021.64	Contract Capacity (bbls) 315,500
Sep 2019- Aug 2020	\$/yr		\$1,338,502.50	4% Increase
Sep 2020- Aug 2021	\$/yr		\$1,392,042.60	4% Increase
Sep 2021- Aug 2022	\$/yr		\$1,447,724.30	4% Increase
Total (4-Year Extn)			\$5,465,291.04	
2. Bunkering Fee (P/L Fee from storage to navy tie-in) (RFO delivered-Net)	\$/bbl	\$4.20	\$4.20	\$0.00 No change

**AMENDED NO. 1  
DOCK AGREEMENT**

This Amendment No. 1 to the Storage Agreement (“1<sup>st</sup> Amendment”) is made by and between **TRISTAR TERMINALS GUAM, INC.**(“**Tristar**”), a Guam corporation whose address is P.O. Box 8210, Agat, Guam 96918, and **GUAM POWER AUTHORITY**, a public corporation of Guam, whose address is P.O. Box 2977, Hagatna, Guam 96932.

**WHEREAS**, a Dock Agreement with the reference “TTGI-DA-2013” between the parties dated 1<sup>st</sup> September, 2013 expires on 31<sup>st</sup> August, 2018, and the parties want to extend and continue the said Agreement.

**NOW, THEREFORE**, the parties agree:

1. The said Agreement is extended on a year-to-year basis upon expiration of the original term on August 31, 2018 for a period not exceeding four (4) successive yearly extensions.
2. The extension is further subject to Tristar being the authorized operator of the F1-Dock post the expiration of the current agreement with Port Authority of Guam on 31<sup>st</sup> March, 2019.
3. Except as stated herein all other terms and condition of the Dock Agreement and Amendments thereto shall remain in effect.

**TRISTAR TERMINALS GUAM, INC.**

**GUAM POWER AUTHORITY**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**AMENDED NO. 1  
PIPELINE AGREEMENT**

This Amendment No. 1 to the Storage Agreement (“1<sup>st</sup> Amendment”) is made by and between **TRISTAR TERMINALS GUAM, INC.**, a Guam corporation whose address is P.O. Box 8210, Agat, Guam 96918, and **GUAM POWER AUTHORITY**, a public corporation of Guam, whose address is P.O. Box 2977, Hagatna, Guam 96932.

**WHEREAS**, a Pipeline Agreement with the reference “TTGI-PA-2013” between the parties dated 1<sup>st</sup> September, 2013 expires on 31<sup>st</sup> August, 2018, and the parties want to extend and continue the said Agreement.

**NOW, THEREFORE**, the parties agree:

1. The said Agreement is extended on a year-to-year basis upon expiration of the original term on August 31, 2018 for a period not exceeding four (4) successive yearly extensions.
2. The storage fee for the extended period will be:

Extended Period Year	Period	Monthly Fee	Annual Fee
1	September 2018 - August 2019	\$ 41,956.95	\$ 503,483.39
2	September 2019 - August 2020	\$ 43,635.23	\$ 523,622.72
3	September 2020 - August 2021	\$ 45,380.64	\$ 544,567.63
4	September 2021 - August 2022	\$ 47,195.86	\$ 566,350.34

3. Except as stated herein all other terms and condition of the Pipeline Agreement and Amendments thereto shall remain in effect.

**TRISTAR TERMINALS GUAM, INC.**

**GUAM POWER AUTHORITY**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



**AMENDED NO. 1  
STORAGE AGREEMENT**

This Amendment No. 1 to the Storage Agreement (“1<sup>st</sup> Amendment”) is made by and between **TRISTAR TERMINALS GUAM, INC.**, a Guam corporation whose address is P.O. Box 8210, Agat, Guam 96918, and **GUAM POWER AUTHORITY**, a public corporation of Guam, whose address is P.O. Box 2977, Hagatna, Guam 96932.

**WHEREAS**, a Storage Agreement with the reference “TTGI-SA-2013” between the parties dated 1<sup>st</sup> September, 2013 expires on 31<sup>st</sup> August, 2018, and the parties want to extend and continue the said Agreement.

**NOW, THEREFORE**, the parties agree:

1. The said Agreement is extended on a year-to-year basis upon expiration of the original term on August 31, 2018 for a period not exceeding four (4) successive yearly extensions.
2. The storage fee for the extended period will be:

Extended Period Year	Period	Monthly Fee	Annual Fee
1	September 2018 - August 2019	\$ 107,251.80	\$ 1,287,021.64
2	September 2019 - August 2020	\$ 111,541.88	\$ 1,338,502.50
3	September 2020 - August 2021	\$ 116,003.55	\$ 1,392,042.60
4	September 2021 - August 2022	\$ 120,643.69	\$ 1,447,724.30

3. Except as stated herein all other terms and condition of the Storage Agreement and Amendments thereto shall remain in effect.

**TRISTAR TERMINALS GUAM, INC.**

**GUAM POWER AUTHORITY**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



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

## **Issues for Decision**

### **Resolution No. 2017-44:**

#### **Relative to Authorizing the Approval of a Bond Issuance to Refinancing Portion of the 2010 Revenue Bond**

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

GPA has been pursuing strategies for reducing debt service payments. One strategy that has emerged as a result of historically low interest rates has been the concept of refunding portion of GPA's 2010 Series A revenue bonds for interest rate savings.

GPA expects that opportunities will arise from time to time to refund all or a portion of its other then outstanding revenue bonds for debt service savings, which is expected to result in potential savings to ratepayers. Low interest rate warrants action from the CCU.

After several months of reviewing this strategy with Barclays, GPA Bond Counsel, and GEDA, GPA believes this strategy provides significant benefit for GPA ratepayers. This transaction will need the approval of the Guam Legislature, GEDA, the PUC, and the Governor. The CCU desires to pursue this plan for refinancing of GPA's debt service costs in order to provide a net present value savings to ratepayers.

The present value of debt service on the refunding bonds shall be at least two percent (2%) less than the present value of debt service on the prior bonds, using the yield on the refunding bonds as the discount rate.

The projected NPV savings from refinancing 2010 Series A revenue bonds is \$6.74 million or 4.48% NPV savings.



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

**Resolution No. 2017-44**

**RESOLUTION AUTHORIZING THE ISSUANCE AND SALE OF GUAM POWER  
AUTHORITY REVENUE REFUNDING BONDS, APPROVING FORMS OF  
RELATED DOCUMENTS, AGREEMENTS AND ACTIONS, AND AUTHORIZING  
THE EXECUTION AND DELIVERY THEREOF**

WHEREAS, the Consolidated Commission on Utilities (the “Commission”), has determined that there exists an opportunity to refund and retire certain indebtedness of the Guam Power Authority (“GPA”) to achieve debt service savings, and has determined that it is in the public interest for GPA to issue bonds pursuant to Chapter 8, Title 12, Guam Code Annotated (§8101 et seq.), as amended (the “Act”) for such purposes; and

WHEREAS, GPA has previously made and entered into an Indenture dated as of December 1, 1992 (the “Senior Indenture”), by and between GPA, the Bank of Guam, as trustee (the “Trustee”) and U.S. Bank National Association, as successor co-trustee (the “Co-Trustee”), which authorized one or more series of Guam Power Authority Revenue Bonds (the “Senior Bonds”); and

WHEREAS, GPA has determined it is necessary and desirable to issue one or more additional series of Guam Power Authority Revenue Bonds to refinance all or a portion of its remaining outstanding Guam Power Authority Revenue Bonds, 2010 Series A (the “Prior Bonds”); and

WHEREAS, there has been presented to this meeting the form of a Seventh Supplemental Indenture, among GPA, the Trustee and the Co-Trustee (the “Seventh Supplemental Indenture”) pursuant to which GPA proposes to issue one or more series of additional Senior Bonds (the “Refunding Bonds”); and

WHEREAS, there has been presented to this meeting the form of a Supplemental Continuing Disclosure Agreement, by and among GPA, the Trustee and the Co-Trustee, in connection with the Refunding Bonds (the “Supplemental Continuing Disclosure Agreement”); and

WHEREAS, there has been presented to this meeting the form of a Bond Purchase Agreement (the “Bond Purchase Agreement”), between GPA and Barclays Capital Inc. and Citigroup Global Markets Inc., as underwriters (the “Underwriters”), relating to the sale of the Refunding Bonds; and

WHEREAS, there has been presented to this meeting the form of an Escrow Agreement between GPA and the Co-Trustee (the “Escrow Agreement”), relating to the refunding and retirement of the Prior Bonds; and

WHEREAS, the Seventh Supplemental Indenture, the Supplemental Continuing Disclosure Agreement and the Escrow Agreement are collectively referred to herein as the “Bond Documents”; and

WHEREAS, there has been presented to this meeting the form of a Preliminary Official Statement; and

WHEREAS, the issuance of the Refunding Bonds shall be subject to the approval of *Liheslaturan Guåhan* (the “Legislature”); and

WHEREAS, the approval of Guam Economic Development Authority (“GEDA”) is required for the issuance and sale of the Refunding Bonds; and

WHEREAS, the approval of the Public Utilities Commission of Guam (“PUC”) is required for the issuance and sale of the Refunding Bonds;

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

Section 1. The foregoing recitals are true and correct.

Section 2. The issuance and sale of the Refunding Bonds for the purpose of refunding the Prior Bonds, to pay costs of issuance and of such refunding, to pay for credit enhancement, if any, and to fund all or a portion of a deposit to the debt service reserve fund, if any, is hereby approved. The Refunding Bonds shall be issued in an aggregate principal amount sufficient to provide funds for the payment of the Prior Bonds and for the payment of all expenses incident to such issuance and refunding, as set forth in §8229 of the Act.

The Senior Bonds are limited obligations of GPA and the principal thereof and interest thereon may be made payable solely from revenues (as defined in the Act) of GPA available for such purpose and shall not be a debt or liability of the Government of Guam.

52                   The Chair of the Commission, the Vice Chair/Secretary of the Commission or the General  
53   Manager of GPA (the “Designated Officers”) are hereby individually and collectively authorized and directed to  
54   execute and countersign, for and on behalf and in the name of GPA and under its seal, the Refunding Bonds, in  
55   an aggregate principal amount determined as set forth herein and in the Act, in accordance with the Seventh  
56   Supplemental Indenture, and in substantially the form set forth in the Seventh Supplemental Indenture.

57                   The Refunding Bonds, when so executed, shall be delivered to the Co-Trustee to be  
58   authenticated by, or caused to be authenticated by, the Co-Trustee. The Co-Trustee is hereby requested and  
59   directed to authenticate, or cause to be authenticated, the Refunding Bonds by executing the certificate of  
60   authentication appearing thereon, and to hold the Refunding Bonds in safekeeping in accordance with the book-  
61   entry procedures applicable to the Refunding Bonds until the issuance thereof from time to time in accordance  
62   with the Seventh Supplemental Indenture.

63                   Section 3.       The form of Preliminary Official Statement presented to this meeting is hereby  
64   approved, with such additions, changes and modifications as the Designated Officers may approve upon  
65   consultation with legal counsel, such approval to be conclusively evidenced by the execution of a certificate  
66   deeming final the Preliminary Official Statement for purposes of Rule 15c2-12 of the Securities and Exchange  
67   Commission by the Designated Officers. Each of the Designated Officers is hereby authorized to execute and  
68   deliver such certificate, to authorize the Underwriters to distribute such Preliminary Official Statement to  
69   potential purchasers of the Refunding Bonds and other interested parties, and to execute and cause to be  
70   delivered a final Official Statement to purchasers of the Refunding Bonds and other interested parties, with such  
71   additions, changes and modifications from the Preliminary Official Statement as the Designated Officers may  
72   approve upon consultation with staff and legal counsel, such approval to be conclusively evidenced by the  
73   execution and delivery of the final Official Statement by one or more of the Designated Officers. The  
74   Underwriters are hereby authorized to cause the Official Statement to be delivered to the purchasers of the  
75   Refunding Bonds and to be distributed in preliminary form in connection with the marketing and sale of the  
76   Refunding Bonds.

77                   Section 4.       The Bond Purchase Agreement presented to this meeting is hereby approved,  
78   with such additions, changes and modifications as the Designated Officers executing the same may approve  
79   upon consultation with legal counsel, such approval to be conclusively evidenced by the Bond Purchase

Agreement executed by the Designated Officers, who are each hereby severally authorized and directed to execute the same.

Section 5. The Bond Documents presented to this meeting are hereby approved, with such additions, changes and modifications as the Designated Officers may approve upon consultation with legal counsel, such approval to be conclusively evidenced by the Bond Documents executed by such Designated Officers, who are each hereby severally authorized and directed to execute the same.

Section 6. The Designated Officers are hereby authorized to approve such bond insurance or other supplemental security arrangements for the Refunding Bonds as are approved by the Designated Officers, and to approve any other similar agreements deemed by the Designated Officers to be necessary or appropriate in connection therewith.

Section 7. The Designated Officers and other appropriate officials of GPA are hereby authorized and directed to do any and all things and to execute and deliver any and all documents and agreements which they may deem necessary or advisable in order to effectuate the purposes of this Resolution, including, without limitation, closing documents and certificates, including a tax certificate, amendments to any existing agreements and any documents or agreements necessary to obtain liquidity or credit enhancement for the Refunding Bonds or the obligations of GPA with respect thereto.

Section 8. Any documents authorized hereby to be executed by the Designated Officers may bear the seal of GPA and be attested by an appropriate official of GPA.

Section 9. The Refunding Bonds shall not be issued without, and shall be in all respects subject to the terms and conditions of, the approval of the Legislature, of the PUC, and of GEDA, in accordance with the Act.

Section 10. All actions heretofore taken by the officers, representatives or agents of GPA in connection with the issuance and sale of the Refunding Bonds are hereby ratified, confirmed and approved.

Section 11. This Resolution shall take effect from and after its adoption.

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

DULY AND REGULARLY ADOPTED AND APPROVED this **22<sup>nd</sup> day of November 2017.**

Certified by:

Attested by:

JOSEPH T. DUENAS

Chairperson

J. GEORGE BAMBA

Secretary

This Resolution is hereby APPROVED for purposes of Article 2 of Chapter 8 of Title 12 of the Guam Code Annotated.

EDWARD J.B. CALVO

Governor of Guam

SECRETARY'S CERTIFICATE

I, J. GEORGE BAMBA, Secretary for the Consolidated Commission on Utilities do hereby certify as follows:

The foregoing is a full, true and accurate copy of a resolution duly adopted at a meeting of the members of the 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:

Said original resolution has not been amended, modified or rescinded since the date of its adoption, and the same is now in full force and effect.

SO CERTIFIED this 22<sup>nd</sup> day of November 2017.

J. GEORGE BAMBA

Secretary, Consolidated Commission on Utilities

***I MINA' TRENTAI KUATTRO NA LIHESLATURAN GUÅHAN***  
**2017 (FIRST) Regular Session**

Bill No. 139 -34 (COR)

Introduced by:

Telena Cruz Nelson  
William M. Castro  
Fernando Barcinas Esteves *F.B.E.*

**AN ACT TO APPROVE THE TERMS AND CONDITIONS OF  
GUAM POWER AUTHORITY REVENUE BONDS TO  
REFUND OUTSTANDING GUAM POWER AUTHORITY  
REVENUE BONDS.**

1 **BE IT ENACTED BY THE PEOPLE OF GUAM:**

2 **Section 1. Legislative Findings and Intent.**

3 (a) *I Liheslaturan Guåhan* finds that § 8203 of Title 12 of the Guam Code  
4 Annotated provides that Guam Power Authority ("GPA") is authorized to incur  
5 indebtedness by the issuance of revenue bonds with the approval of *I Maga'lahi*  
6 (the Governor) to raise funds for the purpose of establishing the electric power  
7 system of GPA, or of acquiring lands for the system, or of acquiring, constructing,  
8 improving, equipping, maintaining, repairing, renewing, replacing, reconstructing  
9 or insuring the system, or any part thereof, or for the purpose of refunding any such  
10 bonds, or for any combination of such purposes.

11 (b) § 12105 of Title 12 of the Guam Code Annotated provides that the  
12 GPA shall not enter into any contractual agreements or obligations (including  
13 bonds) which could increase rates and charges prior to the written approval of the  
14 Guam Public Utilities Commission (the "GPUC").

15 (c) § 50103 of Title 12 of the Guam Code Annotated provides that public  
16 corporations of the government of Guam, including GPA, shall issue bonds and

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1 other obligations only by means of, and through the agency of the Guam Economic  
2 Development Authority ("GEDA"), and that GEDA shall not sell any bond without  
3 the approval by *I Liheslaturan Guahan* of the terms and conditions of the bonds.

4 (d) Based on historical low interest rates and current market conditions,  
5 GPA expects to be able to refund certain maturities of its outstanding 2010 Series  
6 A revenue bonds for debt service savings. In addition, GPA expects that  
7 opportunities will arise from time to time to refund all or a portion of its other then  
8 outstanding revenue bonds for debt service savings, which is expected to result in  
9 potential savings to ratepayers.

10 (e) In order to benefit ratepayers, *I Liheslaturan Guahan* has determined  
11 to approve the issuance of revenue bonds by GPA for the purpose described in the  
12 above immediately preceding paragraph, all subject to approval by the  
13 Consolidated Commission on Utilities ("CCU"), *I Maga'lahaen Guahan*, the  
14 GPUC, and the Board of Directors of GEDA in accordance with law.

15 **Section 2. Approval of the Terms and Conditions of GPA Refunding**  
16 **Bonds.**

17 *I Liheslaturan Guahan*, pursuant to §50103(k) of Title 12 of the Guam Code  
18 Annotated, hereby approves the terms and conditions of the issuance of senior  
19 revenue bonds in one or more series or issues by GPA for the purpose of refunding  
20 all or a portion of its currently outstanding 2010 Series A revenue bonds, in  
21 accordance with the following requirements, limitations, terms and conditions:

22 (a) The aggregate principal amount of the refunding bonds shall not  
23 exceed the sum of (i) the amount determined in accordance with Section 8229 of  
24 Title 12 of the Guam Code Annotated, plus (ii) any additional amount needed to  
25 provide for a deposit to the debt service reserve in connection with the issuance of  
26 the refunding bonds.

1 (b) All obligation of GPA to pay debt service on, and the redemption  
 2 price of, the prior bonds shall be discharged concurrently with the issuance of the  
 3 refunding bonds. Thereafter, the prior bonds shall be payable solely from and  
 4 secured solely by an escrow established for such purpose in accordance with  
 5 GPA's existing bond indenture.

6 (c) The final maturity of the refunding bonds shall not exceed the final  
 7 maturity of the prior bonds. For clarity, the final maturity of the refunding bonds  
 8 may exceed the maturity of an individual series of prior bonds so long as the final  
 9 maturity of all such prior bonds is not exceeded.

10 (d) Such bonds shall be issued and sold pursuant to GPA's existing bond  
 11 indenture and in compliance with the provisions of Chapter 8 of Title 12 of the  
 12 Guam Code Annotated, including approval by the CCU and by *I Maga'laha*  
 13 *Guahan* as provided therein.

14 (e) The sale of the bonds shall be approved by the Board of Directors of  
 15 GEDA as provided by Chapter 50 of Title 12 of the Guam Code Annotated and the  
 16 terms and conditions of the issuance of the bonds shall be approved by the GPUC  
 17 as provided by Chapter 12 of Title 12 of the Guam Code Annotated.

18 (f) That the present value of debt service on the refunding bonds shall be  
 19 at least two percent (2%) less than the present value of debt service on the prior  
 20 bonds, using the yield on the refunding bonds as the discount rate.

21 (g) Promptly following the approval of the issuance of refunding bonds  
 22 by GPA under this Section by the CCU, the CCU shall provide *I Liheslaturan*  
 23 *Guahan* a copy of the resolution providing for such approval.

24 **Section 3. Severability.** If any provision of this Act or its application to  
 25 any person or circumstances is found to be invalid or contrary to law, such  
 26 invalidity *shall not* affect other provisions or applications of this Act that can be  
 27 given effect without the invalid provisions or application, and to this end the

1. provisions of this Act are severable.

# 2010 Bond Refunding

11-22-2017

Consolidated Commission on Utilities



## Summary

2

- Net PV Saving of \$6.74 million, annual debt payment savings of around \$463,000 a year
- Present value savings of over 4.48%
- New Bond Par Amount \$149,270,000
- Par amount of refunded bond \$150,440,000
- Cost of issuance \$2.98 million
- Refunding to be done in December 2017





## GUAM POWER AUTHORITY

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

### Issues for Decision

#### GPA Resolution No. 2017-45 & GWA Resolution No. 08-FY2018

#### RELATIVE TO AUTHORIZING THE APPROVAL FOR THE UPGRADE AND COMBINED DATABASE OF GUAM POWER AUTHORITY AND GUAM WATERWORKS AUTHORITY CUSTOMER CARE AND BILLING (CC&B) SYSTEM

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

The Consolidated Commission on Utilities has undertaken a number of initiatives to identify opportunities within, in which the ratepayers of Guam will be better served if both utilities work together as a consolidated utility. GPA and GWA have planned and implemented the replacement of its previous Customer Information System (CIS) with Oracle's Customer Care & Billing (CC&B) system as of March 2015. GPA and GWA both realize that there are efficiencies and cost savings in having a consolidated effort in implementing and maintaining a single CIS.

In April of 2016 GPA and GWA procured the services of Prithibi LLC to provide training, GAP analysis review and ongoing support for the operation of CC&B and extended off site support of the system till June 2018.

In November of 2016, the GAP analysis document was presented to both GPA and GWA which listed deficiencies in the implementation of the CC&B system that impacts the short and long term operation of the CC&B System. In one of the noted deficiencies is that GPA and GWA are utilizing physically separate databases in Oracle CC&B and that there will be efficiencies in terms of cost and resources if one CC&B database is utilized for both utilities.

##### How much will it cost?

###### Change order increase amount:

- GPA – From: \$552,853 to \$1,312,853 (\$760,000)
- GWA – From: \$551,853 to \$1,391,853 (\$840,000)

Total: \$1,600,000

##### When will it be completed?

September 2018

##### What is its funding source?

Revenue Funded



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

**GUAM CONSOLIDATED COMMISSION ON UTILITIES**

**GPA RESOLUTION NO. 2017-45**

**GWA RESOLUTION NO. 08-FY2018**

**RELATIVE TO AUTHORIZING THE APPROVAL FOR THE UPGRADE AND COMBINED  
DATABASE OF GUAM POWER AUTHORITY AND GUAM WATERWORKS AUTHORITY  
CUSTOMER CARE AND BILLING (CC&B) SYSTEM**

**WHEREAS**, the Consolidated Commission on Utilities has undertaken a number of initiatives to identify opportunities within, in which the ratepayers of Guam will be better served if both utilities work together as a consolidated utility; and

**WHEREAS**, GPA and GWA have planned and implemented the replacement of its previous Customer Information System (CIS) with Oracle's Customer Care & Billing (CC&B) system as of March 2015; and

**WHEREAS**, the GPA and GWA both realize that there are efficiencies and cost savings in having a consolidated effort in implementing and maintaining a single CIS; and

**WHEREAS**, in April of 2016 GPA and GWA procured the services of Prithibi LLC to provide training, GAP analysis review and ongoing support for the operation of CC&B and extended off site support of the system till June 2018; and

**WHEREAS**, in November of 2016, the GAP analysis document was presented to both GPA and GWA which listed deficiencies in the implementation of the CC&B system that impacts the short and long term operation of the CC&B System; and

**WHEREAS**, one of the noted deficiencies is that GPA and GWA are utilizing physically separate databases in Oracle CC&B and that there will be efficiencies in terms of cost and resources if one CC&B database is utilized for both utilities and

32       **WHEREAS**, GPA and GWA has proposed a ten (10) month project with Prithibi LLC, to perform an  
33 upgrade to the current CC&B program and to also allow the GPA and GWA databases to co-exist in one  
34 instance; and  
35

36       **WHEREAS**, GPA and GWA now request authorization for additional expenditures to address the  
37 professional services for the CC&B upgrade and combining of the two databases that amounts to \$1,600,000,  
38 with the portion of GPA (\$760,000) and GWA (\$840,000), respectively.  
39

40       **NOW, THEREFORE BE IT RESOLVED**, the following policy is adopted by the Consolidated  
41 Commission on Utilities;  
42

43       1.       The General Manager of the Guam Power Authority (GPA) and the General Manager of the Guam  
44 Waterworks Authority (GWA) is authorized to approve the Change Order Agreement with Prithibi LLC, to  
45 increase the authorized amount from \$552,853 to \$1,312,853 for GPA and \$551,853 to \$1,391,853 for GWA,  
46 respectively; and  
47

48       2.       The General Manager of GPA and GWA is hereby authorized the additional expenditure (cost share) for  
49 each agency as follows:

50               GPA Share: \$760,000

51               GWA Share: \$840,000  
52

53       3.       The General Manager of GWA is authorized to petition the Public Utilities Commission for review and  
54 approval of the additional expenditures to address the professional services for the CC&B upgrade and database  
55 merge.  
56

57       **RESOLVED**, that the Chairman certifies and the Board Secretary attests to the adoption of this  
58 Resolution.  
59

60       **DULY AND REGULARLY ADOPTED AND APPROVED THIS 22<sup>ND</sup> DAY OF NOVEMBER**  
61 **2017.**  
62

63 Certified by:

Attested by:

64  
65 \_\_\_\_\_  
66 **JOSEPH T. DUENAS**  
67 Chairperson  
68 Consolidated Commission on Utilities  
69

\_\_\_\_\_  
66 **J. GEORGE BAMBA**  
67 Secretary  
68 Consolidated Commission on Utilities  
69



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

The foregoing is a full, true and correct copy of a 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: \_\_\_\_\_



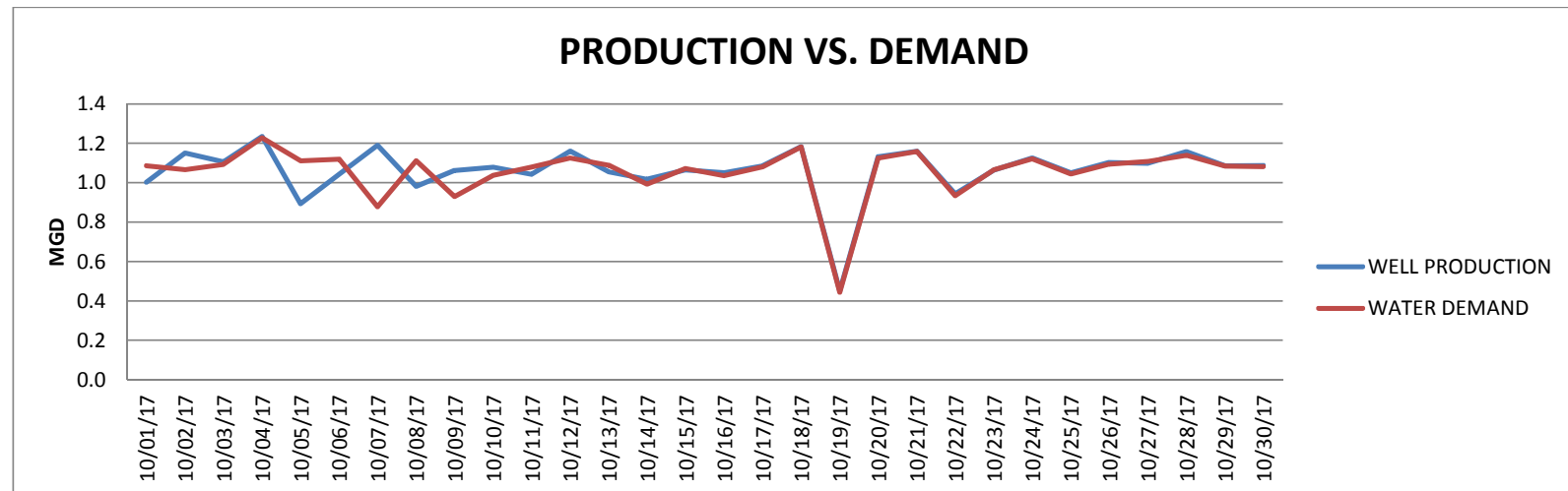
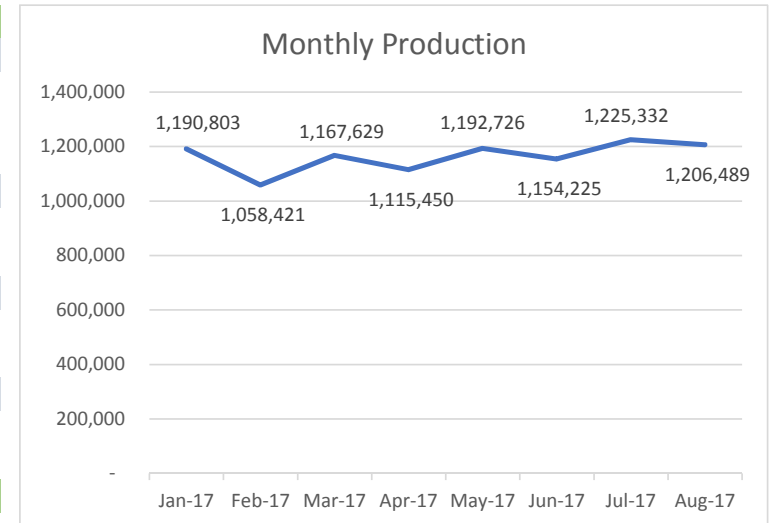
# General Manager's Report

## GPWA CCU Board Meeting, November 22, 2017

## Operations Update

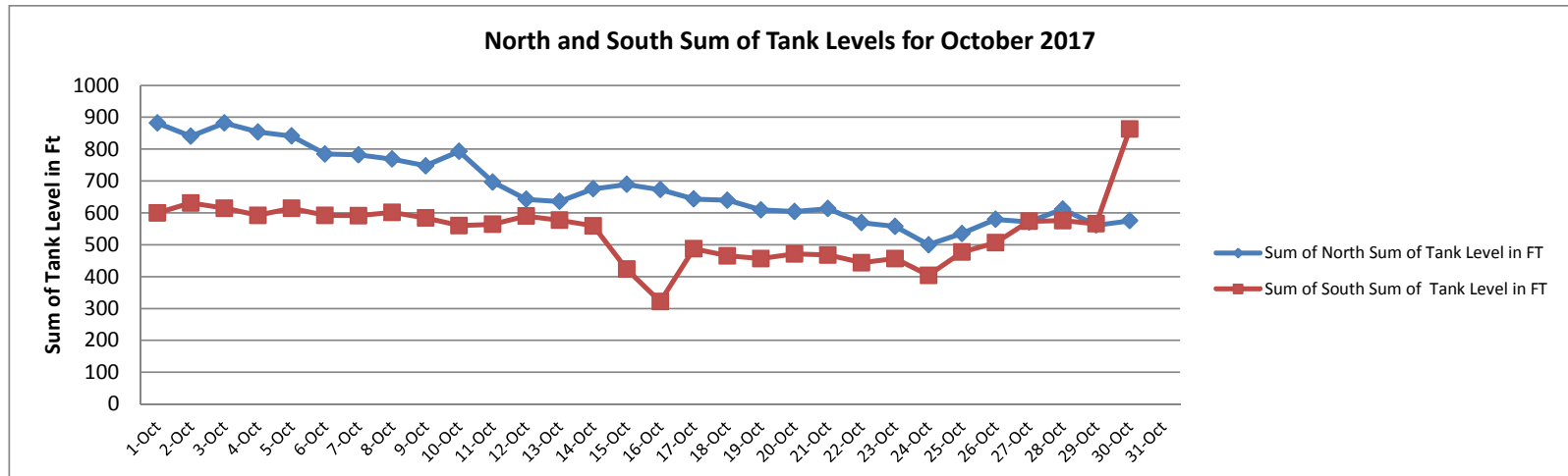
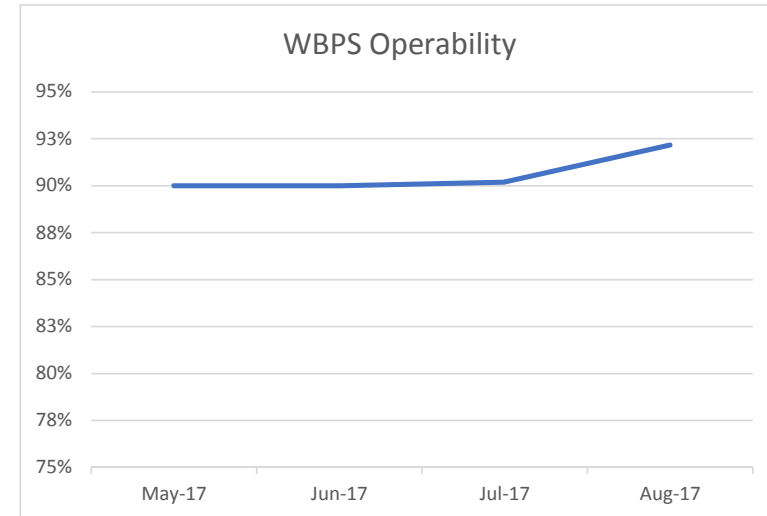
### Production

Monthly Production Summary - August 2017				
Deep Wells		35.5	MGD	
Active wells =	94	of 120		
Avg days in operation =	30.11	days		
Total Production =	1,102,007	Kgals		
Springs		0.22	MGD	
Avg days in operation =	31	days		
Total Production =	6912	Kgals		
Ugum Surface Water Plant		2.1	MGD	
Avg days in operation =	31	days		
Total Production =	65,037	Kgals		
Tumon Maui Well		1.05	MGD	
Avg days in operation =	31	days		
Total Production =	32,534	Kgals		
		1,206,489	Kgals	38.9 MGD



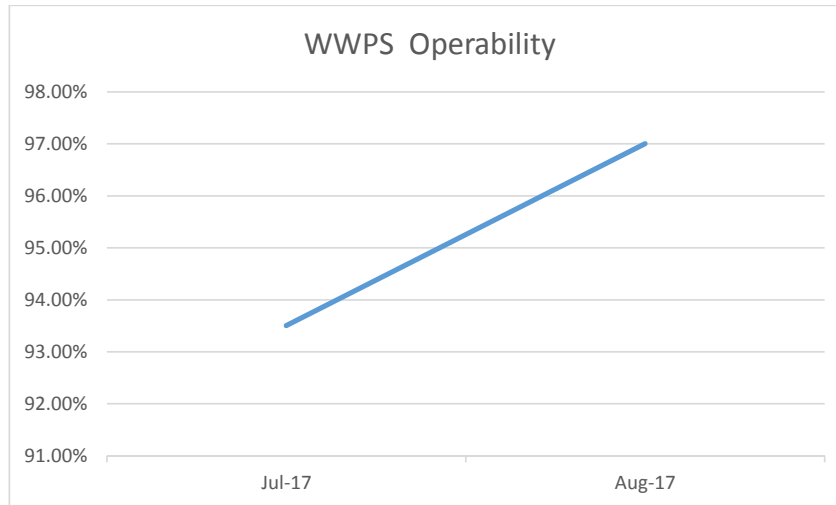
## Distribution

Monthly Distribution Summary - August 2017				
Water Booster Pump Stations				
District	No. of Stations	Total Pumps	Pumps Operating	% Operational
Northern	11	21	20	95.2%
Central	7	15	12	80.0%
Southern	7	15	15	100.0%
	25	51	47	92.2%



## Wastewater Collections

Monthly Collections Summary - August 2017*					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	51	98.1%
	Central	29	65	62	95.4%
	Southern	25	51	50	98.0%
		76	168	163	97.0%

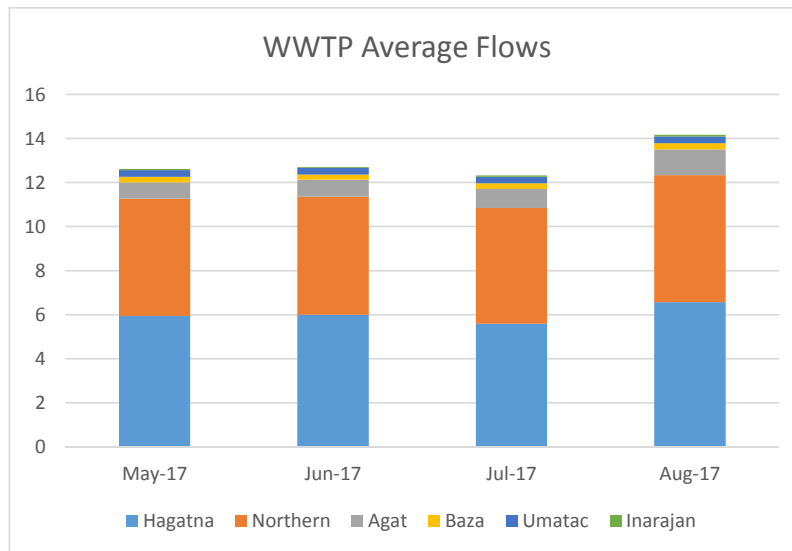


## Wastewater Treatment

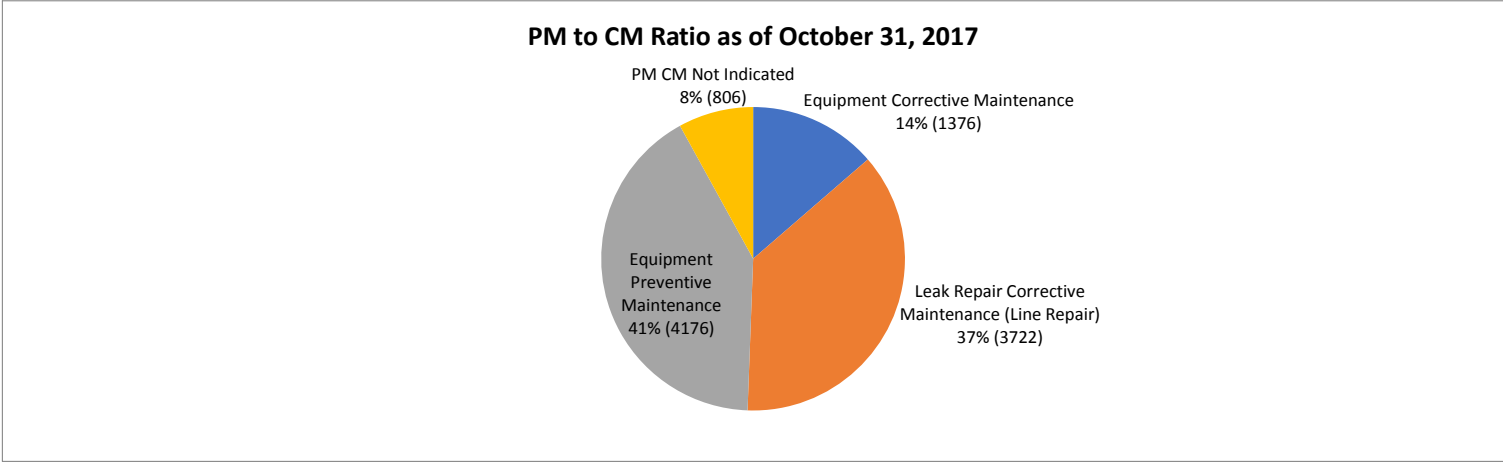
**Monthly Wastewater Treatment Summary - August 2017**

## WW Treatment Plants - Flows

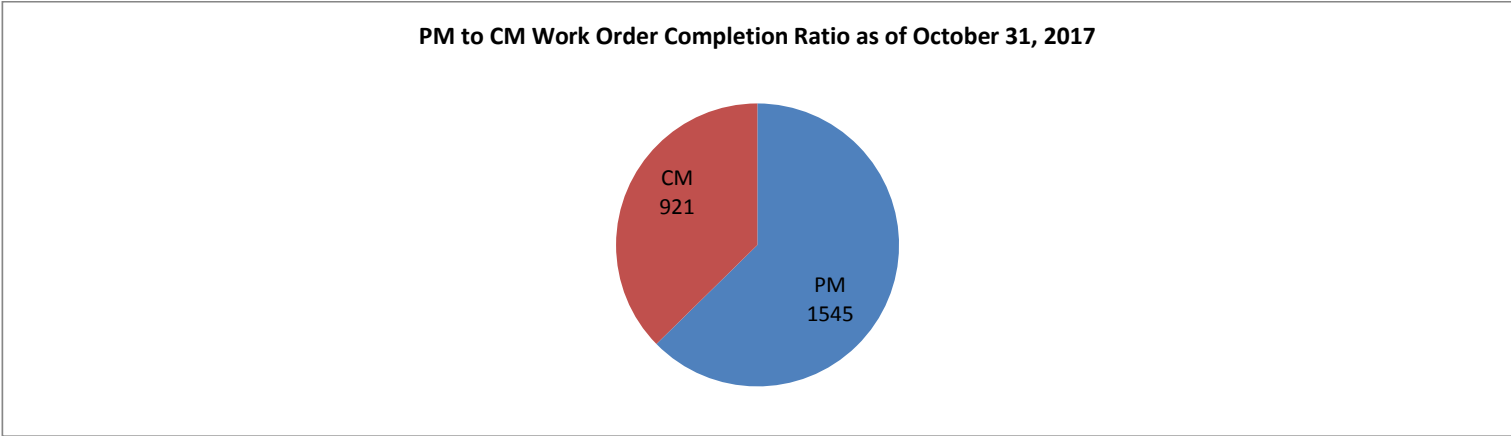
	Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. (\$)
	Hagatna	6.57	694,420	\$ 62,498
	Northern	5.77	690,200	\$ 62,118
	Agat	1.16		
	Baza	0.29		
	Umatac	0.30		
	Inarajan	0.08		
		14.17	1,384,620	\$ 124,616

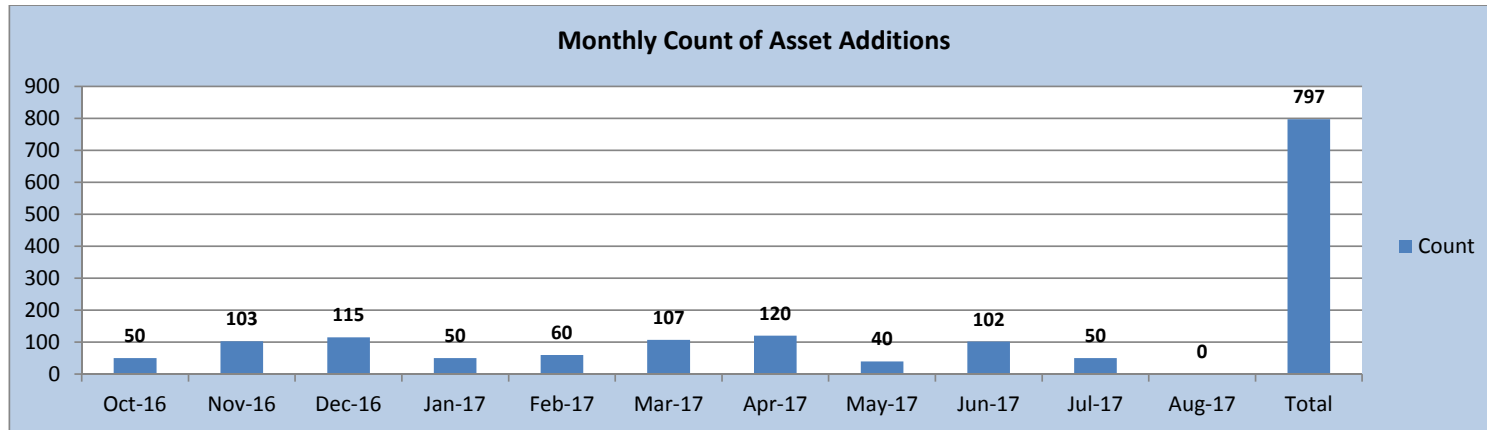


Asset Management



Equipment CM =1376  
Leak Repair= 3722  
Equipment PM=4176  
PM/CM Not Indicated= 806





- **No new asset additions for October 2017**

#### On-Going Asset Management Activities

- Ongoing routine asset condition assessment for all water and wastewater assets and update asset registry.  
**Goal:** once a year for critical assets and every three years for non-critical.
- Risk identification based on asset condition
- Improved PM scheduling
- Establishment of an Asset Management System based on ISO 5500 standards through effective and efficient management of GWA assets.

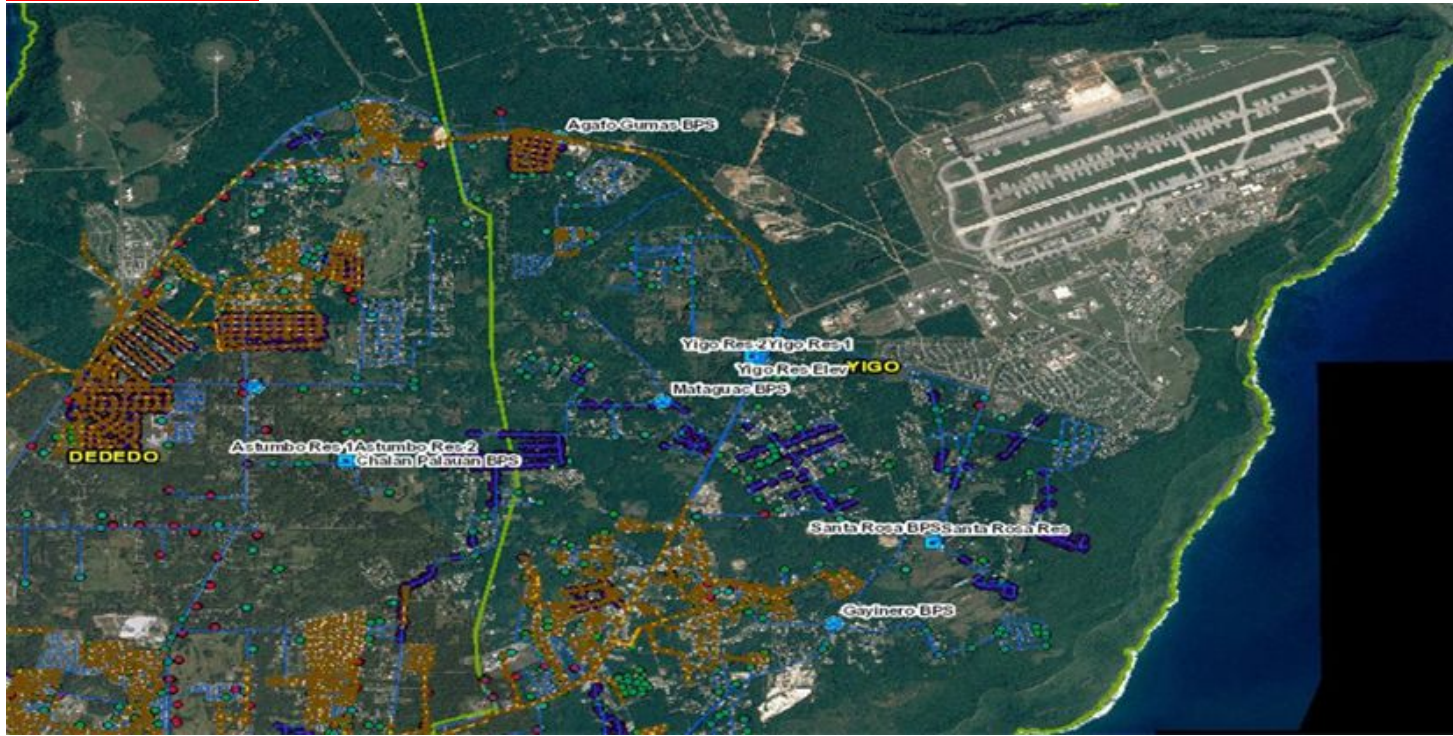
#### Operational Issues

- Operations crew completed two additional sewer line replacement projects in Asan/Piti and Adelup. Adeulp work pending asphalt paving work by sub-contractor.



## Operational Issues

### Mt. Santa Rosa, Yigo:



#### Problem Statement:

Mt. Santa Rosa customers are in the Yigo N-E Zone. Mt. Santa Rosa area is susceptible to water outages due to:

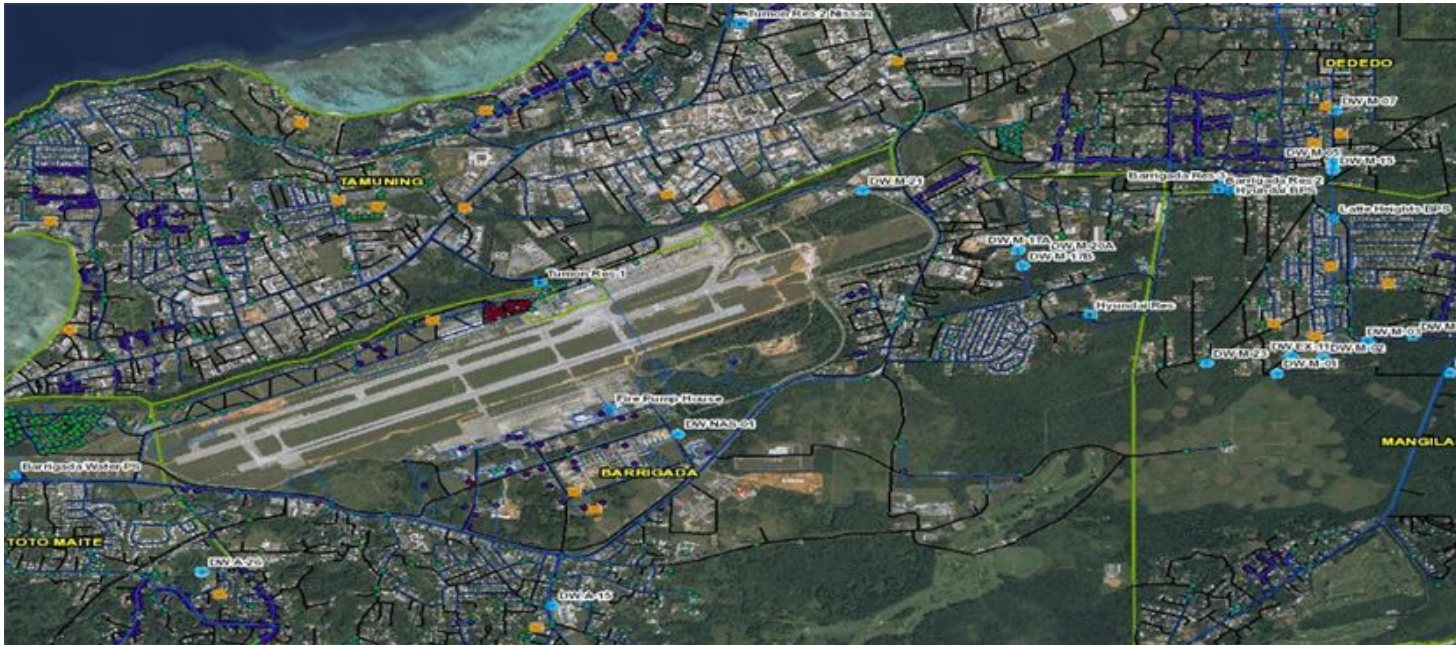
- Deep Well Y-15 coming off line
- Gayinero Booster Pump Station experiencing any pump failure
- Low water levels at the Yigo Reservoirs which causes low suction pressures at the Gayinero BPS. Low levels at the Yigo reservoir are likely caused if Deep Wells AG-2, HGC-1, Y-3, Y-7 and Y-9 go down for whatever reason.
- Any main water breaks on Route 15 north of Gayinero BPS.

## Operational Issues

### Solutions Moving Forward to Stabilize Water System Operations for the Mt. Santa Rosa, Yigo Customers:

- Having available spare pump and motor for Y-15 at all time.
- Having the ability to “re-zone” the Mt Santa Rosa zone which reduces the demand area serviced.
- Having the ability to pump water from the Yigo Booster Pump Station (adjacent to the new Yigo reservoirs) to the Mt. Santa Rosa reservoir.
- Completing the “One Guam” Intertie between the DoD tank and GWA tank in the Mt. Santa Rosa area.
- Assessing the viability for a 50K gallon reservoir at highest elevation on Mt. Santa Rosa.
- Maintaining pump and motor redundancy at the Mt Santa Rosa BPS.
- Maintaining back-up generator operations at the Mt. Santa Rosa BPS

### South Tiyan Area, Barrigada:



## Operational Issues

### Problem Statement:

South Tiyan customers are in the Barrigada Central Zone. South Tiyan area is susceptible to low water pressure or water outages due to:

- Deep Well NAS-1 coming off line
- Low water levels at the Barrigada Reservoirs. Low levels at the Barrigada reservoir are likely caused if Deep Wells M-2, M-5, M-6, M-7, M-15 and some of the Y-Series wells go down for whatever reason.
- Any main water breaks on Route 16 north of Barrigada Post Office.

### Solutions moving forward to stabilize water system operations for the Tiyan customers:

- Having available spare pumps and motors for NAS-1, M-2, M-5, M-6, M-7, M-15 and some of the Y-Series wells at all time.
- Maintaining the Granulated Activated Carbon (GAC) system at NAS-1.
- Having the GIAA water system available during emergency.
- Looping the Tiyan area from Route 8 near Tri-Intersection to improve system reliability.
- Leak Detection and Line Replacement Program due to asbestos concrete piping (ACP) in the Tiyan area reaching it's life expectancy. (Old Navy infrastructure)
- Eliminating the 16" diameter water main running below the Airport runway to keep water in South Tiyan area. Associated with this is the completion of the new water main from Route 8 (near Cars Plus) to the West Tiyan area.



## Meters

**NON AND LOW REGISTERING METER PROJECT  
MONTHLY COMPLETION  
JAN 2017 THRU OCT 2017**

COMPLETED FIELD ACTIVITY - JAN THRU OCT 2017 (POSTED IN CIS)	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	TOTAL:	OCT 2017 COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	745	87	393	743	1000	1007	4394	218
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	5776	39
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	1959	165
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	1618	135
<b>TOTAL:</b>	<b>453</b>	<b>312</b>	<b>343</b>	<b>743</b>	<b>1360</b>	<b>878</b>	<b>1351</b>	<b>2237</b>	<b>3733</b>	<b>2337</b>	<b>13747</b>	<b>557</b>
# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	144	252	305	210	302	397	1013	1130	4448	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	122	84	29	111	219	80	665	\$ 472,257.00 TOTAL AMOUNT (\$\$\$) OF BACK BILLS
# OF FIELD CREW PERFORMING CHANGE OUTS:	19	10	13	9	21	21	14	24	35	28		
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	7	4	5	6	9	9	10	13	15	15		
# OF SUPPLY STAFF TO ISSUE MATERIALS AND PROGRAM NEW METERS:	2	2	2	2	2	2	2	2	2	2		
# OF TEST FACILITY PERSONNEL TESTING METERS:	2	2	2	3	3	3	3	3	3	3		
# OF ACCOUNTANTS CALCULATING BACK BILLS:	0	0	0	2	3	2	2	3	3	2		
<b>TOTAL:</b>	<b>30</b>	<b>16</b>	<b>20</b>	<b>17</b>	<b>32</b>	<b>32</b>	<b>26</b>	<b>39</b>	<b>52</b>	<b>45</b>		

#### Marbo (Andy-South) Wells – Status

- GWA management has approved sketch from surveyor.
- Technical descriptions submitted to GSA for their review and approval.

#### One Guam Update

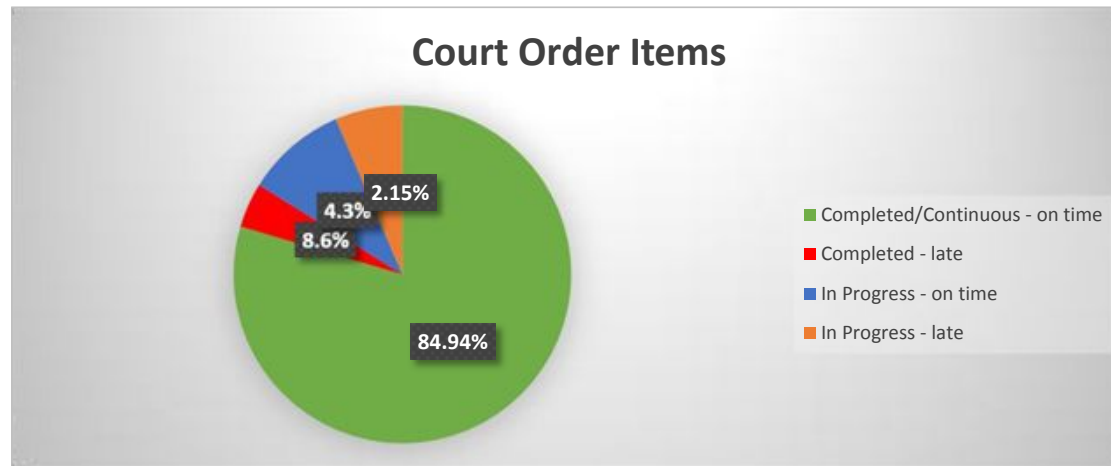
- Tumon Maui Well: Leaks from the vent shaft were observed during the inspection, GM Miguel Bordallo will follow up if it's recurring or bilateral and keep NFM apprised of the issue.
- Santa Rosa Tank:
  - MOU for Santa Rosa Tank – in progress.
  - Still waiting for B&C to do the modelling; Tom Cruz will obtain the date on when.
- Agat Santa Rita WWTP: For the in-kind, Cynthia Blas is waiting for the response from NBG PWD. The easement will be transferred to GovGuam; GWA has to reserve it & make the survey office is aware of the reservation of easement.
- OEA Projects:
  - Chief Engineer Tom Cruz will email the project manager (Brown and Caldwell) for an update on the progress (sewer interceptor, wells & northern district).
  - Sewer Line Interceptor –
    - Going out for design-build this month; hope to have someone on contract the 1<sup>st</sup> quarter of next year.
    - Miguel Bordallo will talk to GPA GM John Benavente regarding the South Finegayan property lease. The lease can be adjusted to include the land where the housing previously was such that the interceptor can be avoided.
    - For the Right-of-Entry, Cynthia Blas submitted a range of \$2,045 to \$3,425. DOD will draft a letter using \$3,425 for GWA to submit to their Finance Section for payment. If the cost is less, the Navy will return the difference to GWA.
  - NDWWTP – Upgrades under design; haven't received the design deliverables.
  - Observation wells – Maria Lewis is requesting the coordinates for the existing wells on the DoD property; Michael Pierson will assist to get them.
    - Installations. Generally the well is owned by the utility; but the land is owned by the military. DoD will work it out.
    - There was an inquiry regarding NEPA work done in the area of Northwest field or NCTS. Maria Lewis stated that MCAG should be asked about their NEPA reviews to avoid duplicating the work.

#### One Guam Update

- Route 5 Sewer Line Replacement:
  - GWA's project is at the cutting of the asphalt. Miguel Bordallo stated that DPW asked GWA to do less repaving on Rt. 5 and more on Rt. 17.
  - Navy has a sewer line replacement in the same area, and proposed possibly tying into GWA's line and sending the Navy flow from Naval Magazine and the Apra Heights area to the Agat-Santa Rita plant.
  - It would be beneficial if the Navy could connect to GWA's system. Michael Pierson suggested to have design coordination meetings in general; will do so on this project for now since don't foresee any other projects in the near future that are in the same area.
- Training Collaboration: GPA is doing a SCADA training and invited GWA. Tom Cruz will ask if others can attend, then let Navy know.
- Other:
  - Connection by Developer to Navy/Murray Road -
    - Property already transferred but just a matter of transferring the lines. Want to have lateral on each side to tie in. Easement map is being worked on. Maria Lewis stated the water lines map was sent. She will send both maps once they have been updated with easement outlines.
  - ACEORP -
    - Michael Pierson shared the data today; have to download from the website sent.
    - Before gets turned over to GWA, ECPs have to be performed.

## Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	79	2	8	4	97.8%



## Status Information

- 2 items delayed
  - CI Residual Monitors
  - Meters
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
  - Umatac By-Pass 10/09/17 – 10/29/17 ended.
  - Liguana Terrace, South Grenada Ct. 11/02/17 – blockage in sewer line.

## CIP Summary

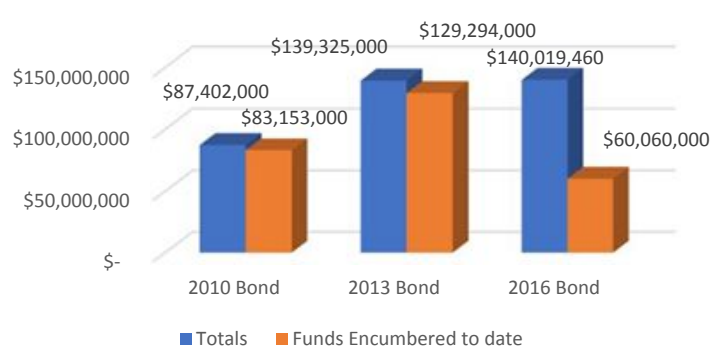
## CIP Summary: Project Encumbrance

	2010 Bond		2013 Bond		2016 Bond			
	Funded	Complete	Funded	Complete	Funded	Complete	Total CIP Projects	%
Potable Water	28	17	21	7	20	0	35	49%
Wastewater	16	13	7	3	8	1	22	31%
Electrical Engineering	5	5	6	1	5	0	10	14%
Miscellaneous Eng'g Support	2	0	3	1	4	1	4	6%
<b>Totals</b>	<b>51</b>	<b>35</b>	<b>37</b>	<b>12</b>	<b>37</b>	<b>2</b>	<b>71</b>	<b>100%</b>
% of Total CIP by Fund Source	72%		52%		52%			

## CIP Summary: Project Amounts

	2010 Bond		2013 Bond		2016 Bond			
	Funded	%	Funded	%	Funded	%	Total CIP Projects	%
Potable Water	\$ 41,903,305	48%	\$ 58,317,117	42%	\$ 64,647,830	46%	\$ 164,868,252	45%
Wastewater	\$ 36,009,577	41%	\$ 73,837,883	53%	\$ 60,227,170	43%	\$ 170,074,630	46%
Electrical Engineering	\$ 1,748,118	2%	\$ 3,395,000	2%	\$ 8,750,000	6%	\$ 13,893,118	4%
Miscellaneous Eng'g Support	\$ 7,741,000	9%	\$ 3,775,000	3%	\$ 6,394,460	5%	\$ 17,910,460	5%
<b>Totals</b>	<b>\$ 87,402,000</b>	<b>100%</b>	<b>\$ 139,325,000</b>	<b>100%</b>	<b>\$ 140,019,460</b>	<b>100%</b>	<b>\$ 366,746,460</b>	<b>100%</b>
Funds Encumbered to date	\$ 83,153,000	95%	\$ 129,294,000	93%	\$ 60,060,000	43%		
% of Total CIP Funding	23.8%		38.0%		38.2%			

CIP Funds Encumbered



CIP Funding Summary





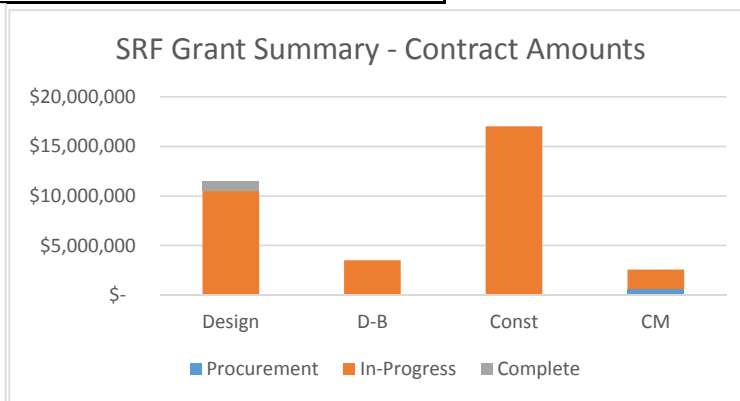
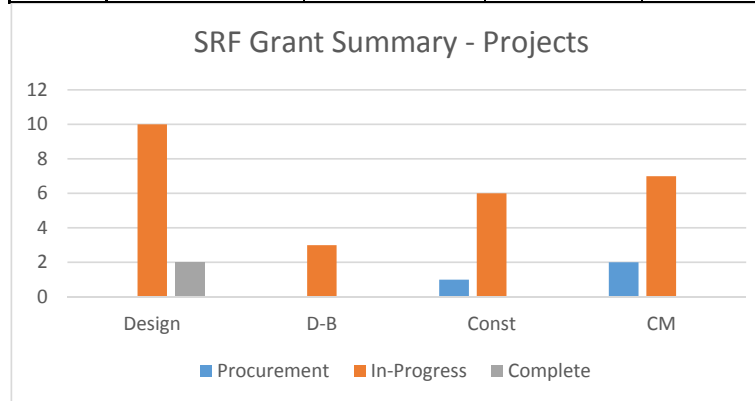
## SRF Grant Summary

**SRF Grant Summary - Projects**

	Procurement	In-Progress	Complete	Totals	%
<b>Design</b>	0	10	2	12	39%
<b>D-B</b>	0	3		3	10%
<b>Const</b>	1	6		7	23%
<b>CM</b>	2	7		9	29%
<b>Totals</b>	3	26	2	31	
<b>%</b>	10%	84%	6%		

**SRF Grant Summary - Contract Amounts**

	Procurement	In-Progress	Complete	Totals	%
<b>Design</b>	\$ -	\$ 10,490,197	976,151	\$ 11,466,348	33%
<b>D-B</b>	\$ -	\$ 3,502,453		\$ 3,502,453	10%
<b>Const</b>	\$ -	\$ 17,043,244		\$ 17,043,244	49%
<b>CM</b>	\$ 584,725	\$ 1,989,176		\$ 2,573,901	7%
<b>Totals</b>	\$ 584,725	\$ 33,025,070	\$ 976,151	\$ 34,585,946	
<b>%</b>	2%	95%	3%		



## OEA Grant Summary

- Grant application submitted for remainder of funding; OEA meeting schedule in early October
- NDWWTP Upgrades
  - Kick-off and Technical Review Meeting conducted end of August
  - Currently conducting WW sampling and characterization study
- Outfall Diffuser
  - 30% Design received August 30th – under review
  - GWA assisting with CCTV inspection of old outfall for bypass use
- Interceptor
  - Bridging Documents for Design-Build procurement received September 1<sup>st</sup> ; Under GWA review
  - Right-of-entry documents required (ALC and Navy) for completion of environmental documents
- NGLA Monitoring Wells
  - Design conference schedule for early October
  - Design in progress; GWA waiting for review set - 30% due November 2017

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)	Pending	Survey complete, appraisals complete – under review
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		On-target	Project design schedule under review by PM/CM
NEPA Analysis and Determination	Feb-17		Delayed	USEPA work on-going; procurement of contractor completed
Procure Construction Firm	Dec-18		On-target	
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

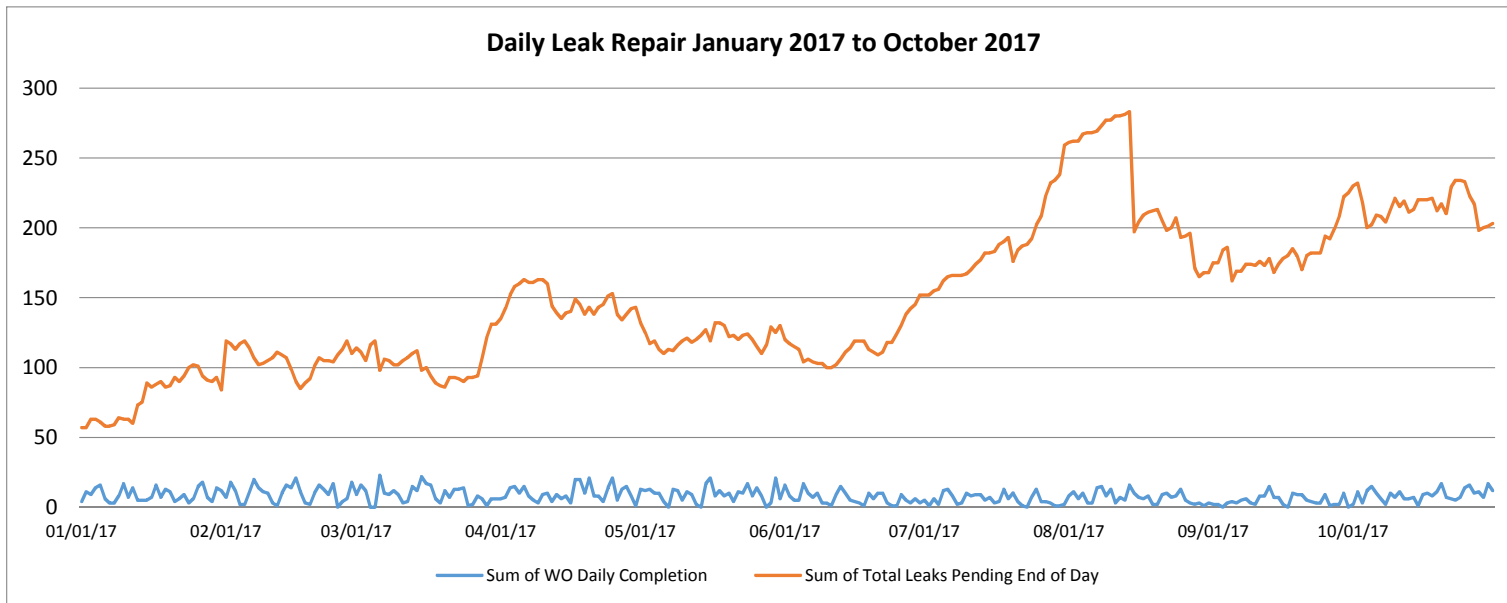
GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
	Ugum	Private	TGE to draft Letter of Decision for private property owners 11/09/17.
	Property Adjacent to Southern Link	Private	GWA started acquisition process on 12/23/2016. Property ownership vested in GWA 08/11/2017.
	Astumbo	Gov't. - CLTC	GWA and DLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DLM.
	Piti	Private	Letter of Intent for private property owners submitted to GWA Land Agent for review 11/01/17.
	A-12	Private	Property ownership vested in GWA 10/16/17.
Expansion of the Northern District Wastewater Treatment Plant (NDWWTP)	Dededo	Gov't - GALC	Lot Parceling Survey Map sent to DLM for review and comments 08/07/17. Appraisal Reports completed 08/11/17. Appraisal Reports sent to DLM for review 11/07/17.
Deep Well	Y-8	Gov't. - CLTC	DCA currently working on severance property map.
	AG-12	Dept. of Agriculture/ Manhita Farms	Land Registration Map submitted to DLM for review and comments 09/29/17.
Booster Pump Station	Brigade	Private	Property ownership vested in GWA 10/16/17.
Booster Pump Station	Agfayan	Private	GWA started land acquisition inquiry process on 11/18/16; Letter of Intent sent out to property owners 08/11/17; 2 <sup>nd</sup> follow up Letter of Intent sent up for signature 11/09/17.

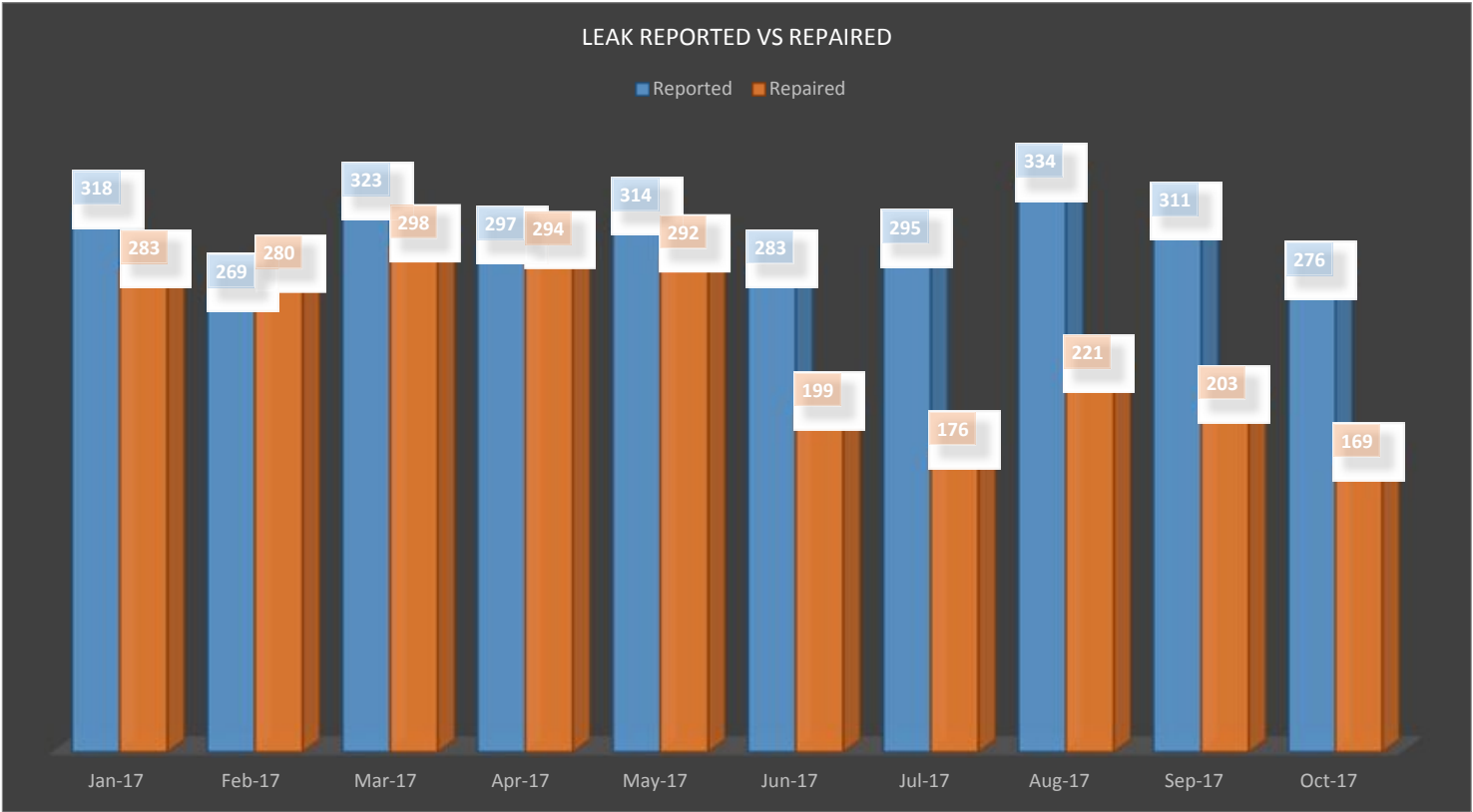
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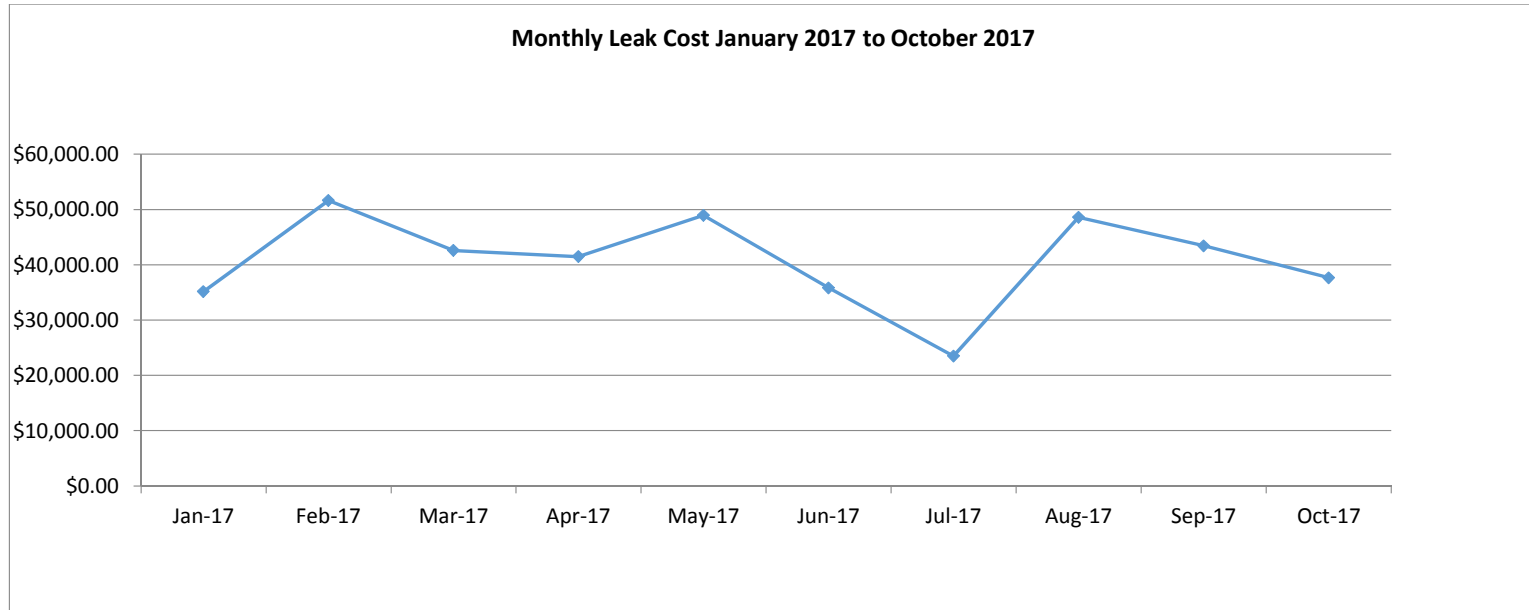
## NRW – Update

- Water Audit update on-going
  - Production rates are being reviewed for accuracy and refined
  - Unmetered, Authorized uses are being quantified
  - Meter and billing inaccuracies are being reviewed and refined

## Leak Repair Summary







Assumptions:

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

# DASHBOARD

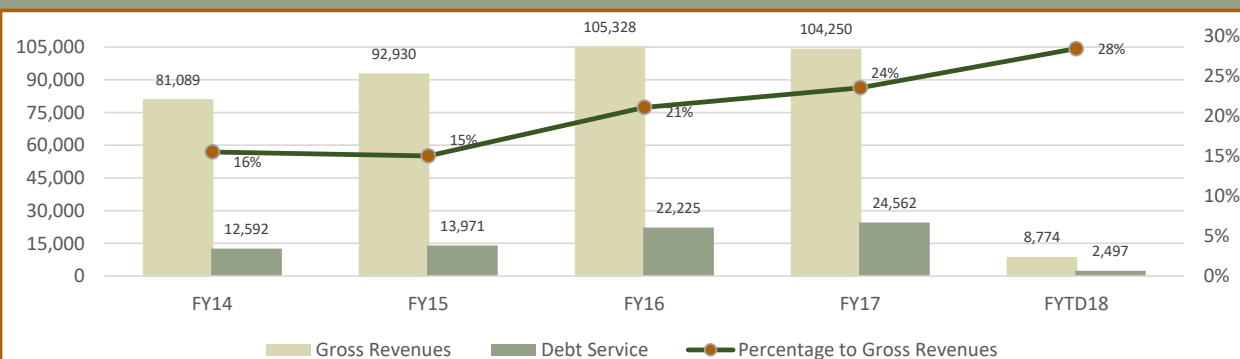
## FYTD October 2018 Budget vs Actual (\$000)

Category	Description	Budget FYTD18	Actual FYTD18	Variance
Rate Based Revenues	Water	\$5,942	\$5,478	(\$463)
	Wastewater	3,322	3,253	(69)
	Total	9,263	8,732	(532)
Operations & Maintenance	Salaries & Benefits	2,210	1,933	(276)
	Power	1,058	1,192	134
	Water Purchases	721	685	(36)
	A&G	1,072	723	(349)
	Contractual	373	270	(104)
	Total	\$7,044	\$6,417	(\$627)

## Key Financial Ratios (\$000)

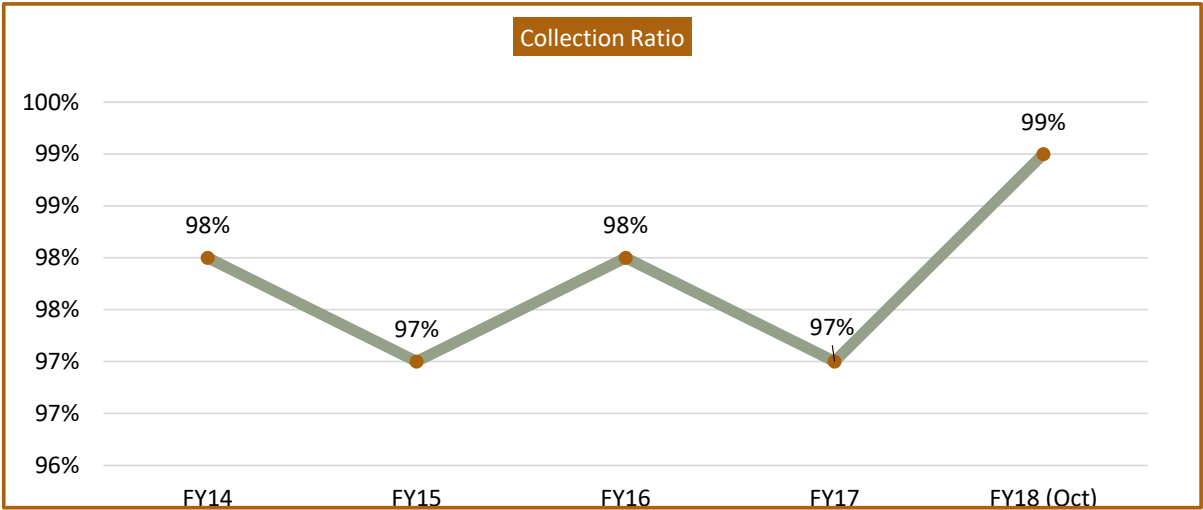
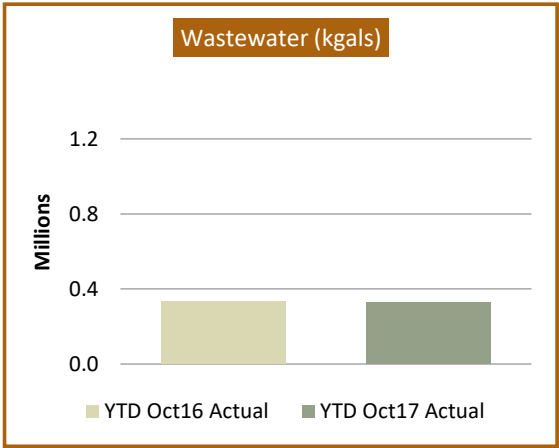
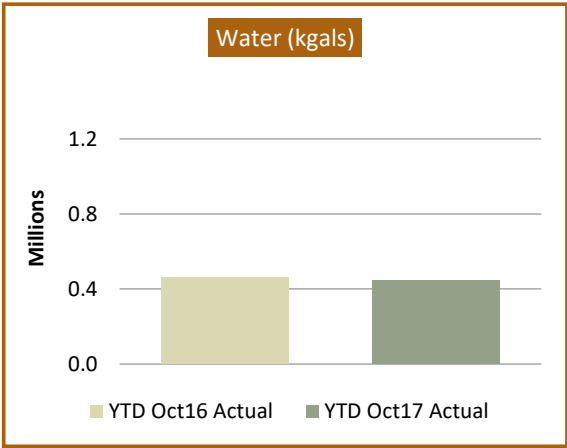
Category	FY18	FY17
Accounts Payable \$\$/Days	\$5,925 / 61 days	\$5,393 / 59 days
Accounts Receivable \$\$/Days	\$15,505 / 71 days	\$15,466 / 51 days
Days Cash On Hand	173 days	184 days
Annual Debt Service (Revenue Bonds)	\$29,961	\$24,563
Debt Service Coverage (Bond/PUC)	1.59 / 1.96	1.99 / 2.40

## Debt as a Percent to Gross Revenue



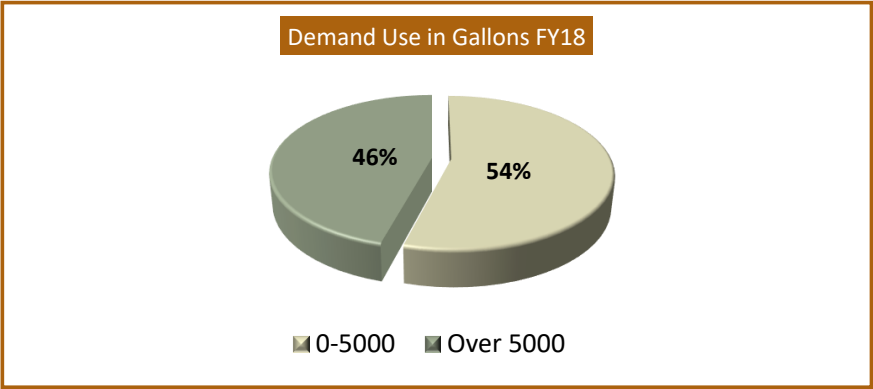
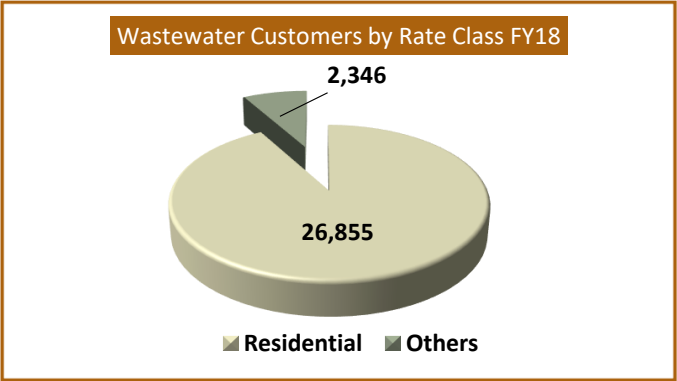
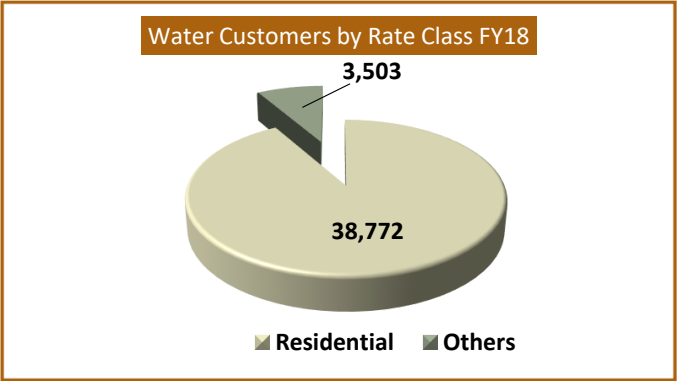
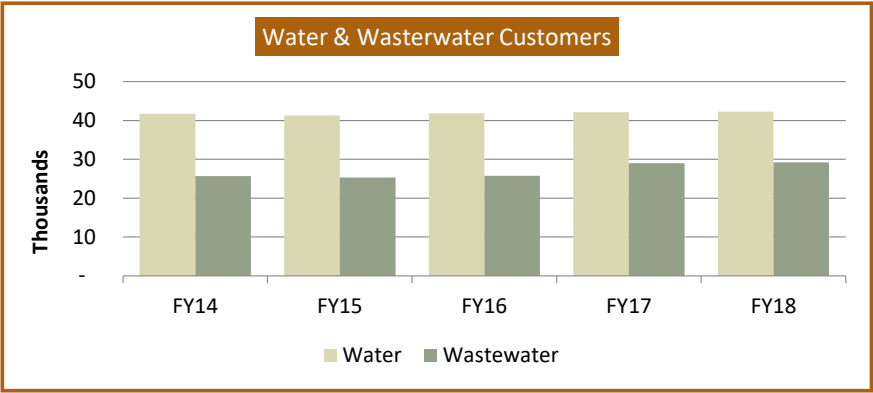
(1) Gross Revenues excludes SDC  
 (2) Debt Service Excludes Cap I

# Water & Wastewater Analytics





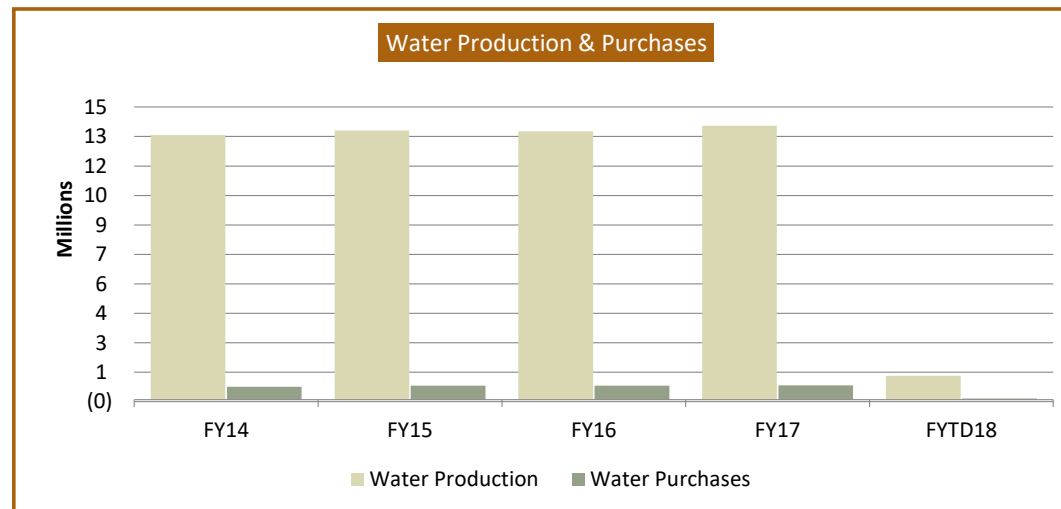
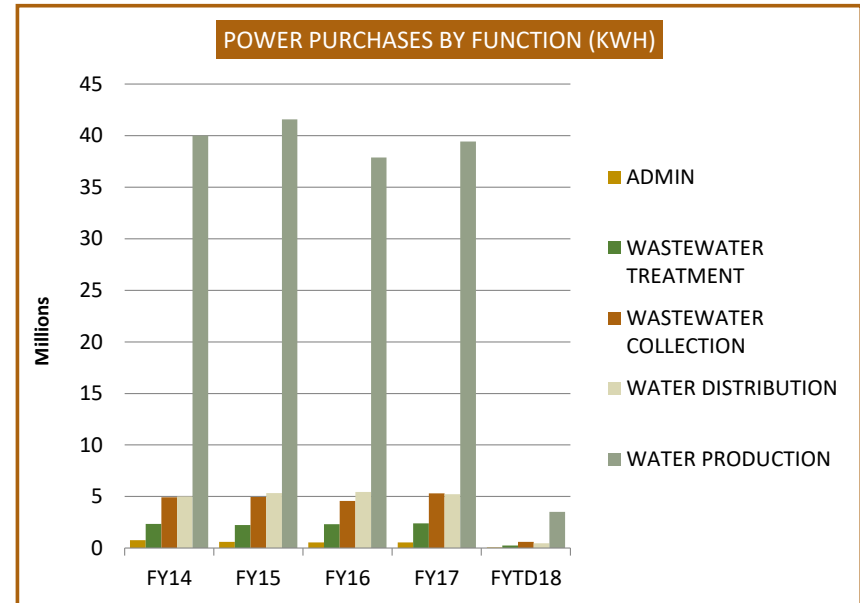
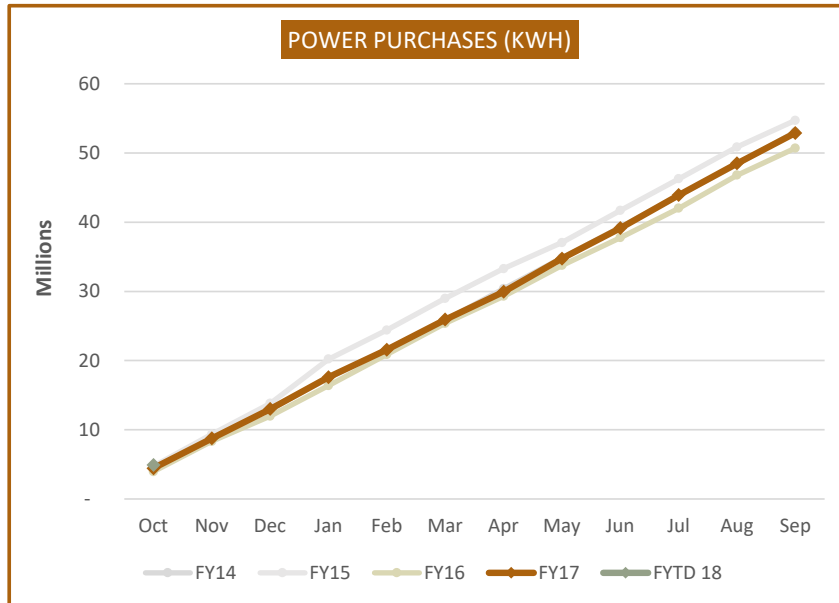
# Water & Wastewater Customers



## Top Ten Largest Water and Wastewater Customers – October 2017

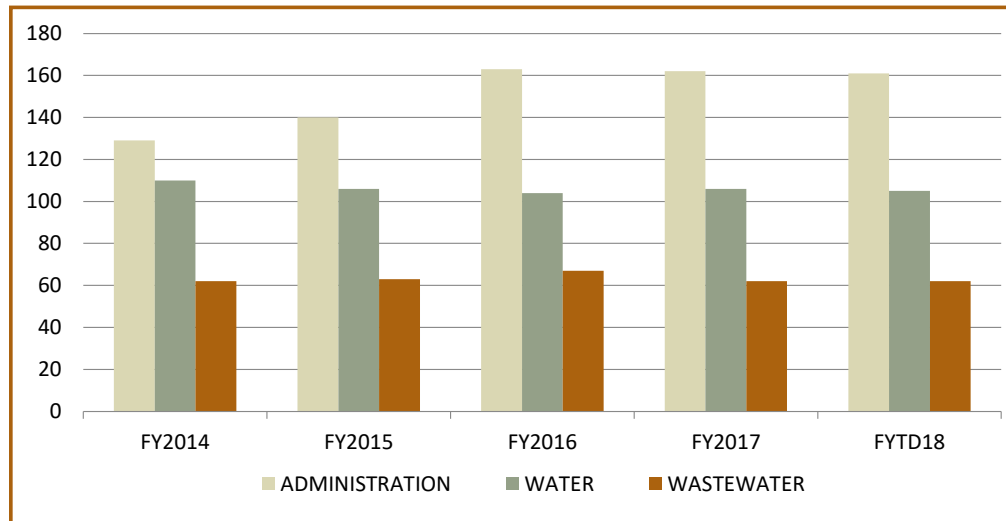
Water			Wastewater		
Customer Name	FYTD18 Revenues	% of Total	Customer Name	FYTD18 Revenues	% of Total
1) MDI GUAM CORPORATION/LEOPALACE	\$104,276	1.90%	1) AIR FORCE DOD	\$300,000	9.23%
2) PACIFIC ISLANDS CLUB	90,963	1.66%	2) NAVY DOD	150,000	4.61%
3) HOTELS OF THE MARIANAS INC	84,366	1.54%	3) HOTELS OF THE MARIANAS INC	90,226	2.77%
4) GUAM REEF HOTEL INC	80,529	1.47%	4) GUAM REEF HOTEL INC	86,366	2.66%
5) HYATT	73,913	1.35%	5) HYATT	79,124	2.43%
6) HOTEL NIKKO GUAM	70,424	1.29%	6) HOTEL NIKKO GUAM	75,250	2.31%
7) PACIFIC STAR RESORT & SPA	57,949	1.06%	7) PACIFIC STAR RESORT & SPA	61,850	1.90%
8) SHERATON LAGUNA GUAM RESORT	55,551	1.01%	8) SHERATON LAGUNA GUAM RESORT	59,400	1.83%
9) TANOTA DEVELOPMENT LLC	54,580	1.00%	9) TANOTA DEVELOPMENT LLC	58,569	1.80%
10) MDI GUAM CORPORATION/WESTIN	51,433	0.94%	10) MDI GUAM CORPORATION/WESTIN	54,976	1.69%
<b>Total</b>	<b>\$723,984</b>	<b>13.21%</b>	<b>Total</b>	<b>\$1,015,760</b>	<b>31.24%</b>

## Power, Water Purchases and Water Production

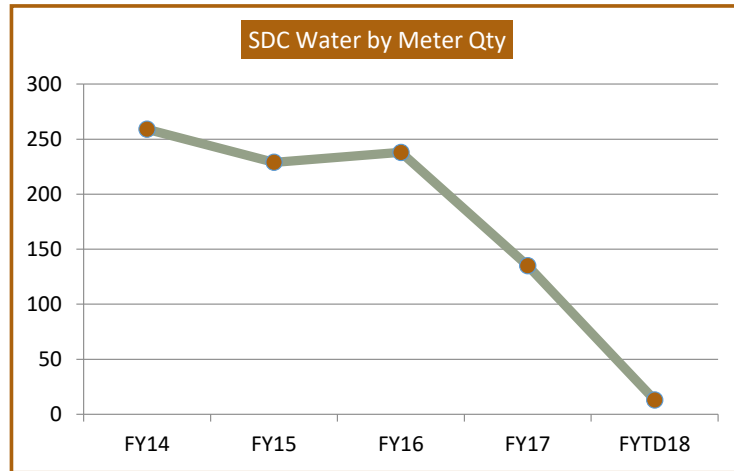


## FTE by Major Division

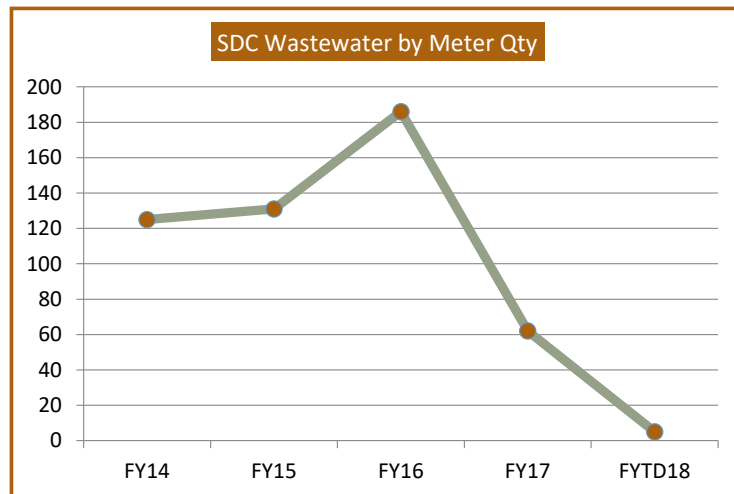
<u>DIVISION</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>	<u>FYTD18</u>
ADMINISTRATION	129	140	163	162	161
WATER	110	106	104	106	105
WASTEWATER	62	63	67	62	62
TOTAL NUMBER OF STAFF	<u>301</u>	<u>309</u>	<u>334</u>	<u>330</u>	<u>328</u>
Gross Salaries & Wages (\$000)	15,532	15,805	16,442	17,210	1,456
Water Customers	41,702	41,274	41,858	42,181	42,275
Staff to Customers Ratio	0.72%	0.75%	0.80%	0.78%	0.78%



## SDC Water & Wastewater (Meter Quantity)



Actual Meter Sizes (Inches)	FY 2014	FY 2015	FY 2016	FY 2017	FYTD18
5/8 x 3/4	248	220	239	129	9
1	5	5	7	2	0
1 1/2	1	1	1	1	2
2	3	2	4	2	2
3	1	-	1	-	-
4	-	1	-	-	-
6	-	-	-	1	0
8	1	-	-	-	-
10	-	-	-	-	-
<b>Total SDC by Water</b>	<b>259</b>	<b>229</b>	<b>252</b>	<b>135</b>	<b>13</b>



Actual Meter Sizes (Inches)	FY 2014	FY 2015	FY 2016	FY 2017	FYTD18
5/8 x 3/4	115	124	179	58	1
1	4	3	2	-	-
1 1/2	1	1	1	1	2
2	3	2	3	2	2
3	1	-	1	-	-
4	-	1	-	-	-
6	-	-	-	1	-
8	1	-	-	-	-
10	-	-	-	-	-
<b>Total SDC by Wastewater</b>	<b>125</b>	<b>131</b>	<b>186</b>	<b>62</b>	<b>5</b>

**GUAM WATERWORKS AUTHORITY  
OCTOBER 31, 2017  
FINANCIAL AND RELATED REPORTS  
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**GUAM WATERWORKS AUTHORITY**  
**Balance Sheet**  
**October 31, 2017**

**SCHEDULE A**

<b>ASSETS</b>	<b>Unaudited October 31, 2017</b>	<b>Unaudited September 30, 2017</b>	<b>Increase (Decrease)</b>
<u>Current Assets:</u>			
Cash:			
Unrestricted (Schedule G)	5,131,245	4,875,775	255,470
Restricted Funds (Schedule G)	66,202,512	65,107,563	1,094,949
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of \$12,676,137 at Oct 31, 2017 and \$12,619,034 at Sep 30, 2017	15,505,009	15,466,038	38,971
Other Receivable	5,976,708	8,709,494	(2,732,786)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of \$457,370 at Oct 31, 2017 and Sep 30, 2017	2,561,149	2,166,557	394,592
Total Current Assets	95,376,623	96,325,427	(948,804)
<u>Property, Plant and Equipment</u>			
Utility plant in service:			
Water system	332,659,493	332,659,493	-
Wastewater system	284,814,829	284,814,829	-
Non-utility property	25,147,057	25,147,057	-
Total property	642,621,379	642,621,379	-
Less Accumulated Depreciation	(300,309,893)	(298,781,718)	(1,528,175)
Land	1,110,998	1,110,998	-
Construction Work in Progress	119,897,135	116,100,369	3,796,766
Property, Plant and Equipment, net	463,319,618	461,051,027	2,268,591
<u>Other noncurrent assets</u>			
Restricted cash (Schedule G)	235,030,652	236,550,002	(1,519,350)
Investments (Schedule G)	43,104,560	41,042,038	2,062,521
Other Prepaid Expenses	737,748	551,128	186,620
Total other noncurrent assets	278,872,960	278,143,169	729,791
<b>TOTAL ASSETS</b>	<b>837,569,201</b>	<b>835,519,623</b>	<b>2,049,578</b>
Deferred outflows of resources:			
Debt defeasance loss on refunding	1,683,537	1,695,981	(12,444)
Deferred outflows from pension	3,366,232	3,414,242	(48,010)
<b>Total Assets and Deferred Outflows of Resources</b>	<b>842,618,970</b>	<b>840,629,846</b>	<b>1,989,124</b>
<b>LIABILITIES AND NET ASSETS</b>			
<u>Current Liabilities:</u>			
Current maturities of long-term debt			
-Series 2010 Bond	1,655,000	1,655,000	-
-Series 2014 Refunding	3,385,000	3,385,000	-
-Notes Payable	2,873,988	2,873,988	-
Accounts Payable -Trade	5,925,695	5,392,756	532,939
Interest Payable	8,844,099	6,656,499	2,187,600
Accrued Payroll and Employee Benefits	1,750,588	2,604,471	(853,883)
Accrued Annual Leave	1,729,291	1,729,291	-
Current portion of employee annual leave	567,057	567,057	-
Contractors' Payable	13,123,216	13,803,156	(679,940)
Customer and Other Deposits	2,088,293	2,087,210	1,083
Total Current Liabilities	41,942,227	40,754,429	1,187,798
<u>Long Term Debt, less current maturities</u>			
Series 2010 Revenue Bond	112,870,000	112,870,000	-
Series 2013 Revenue Bond	172,630,000	172,630,000	-
Series 2014 Refunding	72,610,000	72,610,000	-
Series 2016 Revenue Bond	143,310,000	143,310,000	-
Unamortized Discount - Bond 2010	(1,860,801)	(1,867,525)	6,723
Unamortized Discount - Bond 2013	(1,334,493)	(1,338,751)	4,258
Unamortized Premium - Bond 2014	4,782,476	4,804,694	(22,218)
Unamortized Premium - Bond 2016	17,212,351	17,262,975	(50,625)
Notes Payable	5,454,417	5,697,499	(243,082)
Unfunded Ret Liability (GASB 67/68)	38,195,938	38,195,938	-
Employee Annual Leave, Less Current Portion	783,992	783,992	-
<b>TOTAL LIABILITIES</b>	<b>606,596,106</b>	<b>605,713,251</b>	<b>882,855</b>
<b>Net Assets</b>	<b>236,022,864</b>	<b>234,916,595</b>	<b>1,106,269</b>
<b>Total Liabilities and Net Assets</b>	<b>842,618,970</b>	<b>840,629,846</b>	<b>1,989,124</b>

CCU Regular Meeting November 22, 2017 - NEW BUSINESS

GUAM WATERWORKS AUTHORITY  
Statement of Operations and Retained Earnings (Unaudited)  
Comparative Budget vs. Actual for the period ending October 31, 2017 and 2016

SCHEDULE B

	Budget October-17	Month to Date Encumbered October-17	Actual (Unaudited) October-17	Variance Increase / (Decrease)
<b>OPERATING REVENUES</b>				
Water Revenues	5,743,160		5,294,759	(448,402)
Wastewater Revenues	3,228,257		3,176,575	(51,682)
Legislative Surcharge	291,896		260,173	(31,723)
Other Revenues	57,638		42,711	(14,927)
System Development Charge	46,136		159,296	113,160
<b>Total Operating Revenues</b>	<b>9,367,087</b>	<b>-</b>	<b>8,933,513</b>	<b>(433,574)</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>				
Water Purchases	721,113		685,218	(35,895)
Power Purchases	1,057,997		1,192,451	134,455
Total Utility Costs	1,779,110	-	1,877,669	98,559
Salaries and Wages	1,625,056		1,456,170	(168,886)
Pension and Benefits	584,558		477,269	(107,289)
Total Salaries and Benefits	2,209,614	-	1,933,439	(276,175)
Capitalized Labor and Benefits	(208,333)		(200,000)	8,333
Net Salaries and Benefits	2,001,281	-	1,733,439	(267,842)
<b>Administrative and General Expenses</b>				
Sludge removal	174,514		115,630	(58,884)
Chemicals	204,997		197,525	(7,471)
Materials & Supplies	277,900	116,763	105,122	(56,016)
Transportation	52,370		45,914	(6,456)
Communications	16,182		11,526	(4,655)
Claims	11,100		3,237	(7,863)
Insurance	104,757		75,480	(29,277)
Training & Travel	21,814		4,053	(17,761)
Advertising	13,910		9,205	(4,705)
Miscellaneous	115,515		69,933	(45,583)
Total Administrative and General Expense	993,059	116,763	637,626	(238,671)
<b>Regulatory Expense</b>	22,086		28,112	6,026
<b>Bad Debts Provision</b>	57,103		57,099	(4)
<b>Depreciation Expense</b>	1,528,175		1,528,175	0
<b>Contractual Expense</b>				
Audit & Computer Maint.	78,630	14,193	57,241	(7,197)
Building rental	37,955		36,557	(1,398)
Equipment rental	57,375		33,393	(23,981)
Legal	4,167		600	(3,567)
Laboratory	64,752		39,075	(25,677)
Other	130,363	13,344	102,701	(14,319)
Total Contractual Expense	373,241	27,537	269,566	(76,138)
Retiree Supp. Annuities and health care costs	240,008		235,392	(4,616)
Contribution to Government of Guam	49,500		49,833	333
Total Retiree Benefits	289,508	-	285,225	(4,283)
<b>Total Operating Expenses</b>	<b>7,043,563</b>	<b>144,299</b>	<b>6,416,911</b>	<b>(482,353)</b>
<b>Earnings (Loss) from Operations</b>	<b>2,323,524</b>	<b>(144,299)</b>	<b>2,516,602</b>	<b>48,779</b>
Interest Income-2010/13/14/16 Series Bond	15,727		147,890	132,163
Interest Income-Other Funds	2,935		22,820	19,885
Interest Income-SDC	2,414		3,981	1,567
Interest Expense- 2010/13/14/16 Series Bond	(2,625,587)		(2,211,025)	414,562
Interest Expense- ST BOG	(33,288)		(18,493)	14,795
Federal Expenditures	(51,332)		-	51,332
Loss on Asset Disposal	-		-	-
AFUDC	625,000		625,000	-
Amortization of Discount, Premium and Issuance Costs	(61,861)		61,861	123,722
Loss on Defeasance Bond05 Refunding	(15,218)		(12,444)	2,775
Deferred outflows from pension	(105,281)		(48,010)	57,271
Prior Year Adjustment	-		-	-
Total non-operating revenues (expenses)	(2,246,492)	-	(1,428,419)	818,072
<b>Net Income (Loss) before capital contributions</b>	<b>77,032</b>	<b>(144,299)</b>	<b>1,088,182</b>	<b>866,851</b>
<b>Capital Contributions</b>				
Grants from US Government	873,108		-	(873,108)
Grants from GovGuam & Others	-		18,087	18,087
Other Contributions	-		-	-
Total Capital Contributions	873,108	-	18,087	(855,021)
<b>Change in Net Assets</b>	<b>950,140</b>	<b>(144,299)</b>	<b>1,106,269</b>	<b>11,830</b>
<b>Debt Service Calculation</b>				
Earnings From Operations	2,323,524		2,516,602	
System Development Charge	(46,136)		(159,296)	
Interest/Investment Income	2,935		22,820	
Retire COLA	49,500		49,833	
Depreciation	1,528,175		1,528,175	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>3,857,998</b>		<b>3,958,135</b>	
Working Capital Reserve Available for Debt Service	935,321		935,321	
Transfer to Working Capital Debt Service Reserve	(150,000)		-	
Transfer to Working Capital for O & M Reserve	(266,667)		-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>4,376,652</b>		<b>4,893,456</b>	
<b>Debt Service</b>				
Principal	433,333		433,333	
Interest	2,063,402		2,063,402	
<b>Total</b>	<b>2,496,736</b>		<b>2,496,736</b>	
<b>Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)</b>	<b>1.55</b>		<b>1.59</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.75</b>		<b>1.96</b>	



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GUAM WATERWORKS AUTHORITY  
Statement of Operations and Retained Earnings (Unaudited)  
Comparative for the period ending October 31, 2017 and 2016

SCHEDULE C

	Month to Date		Variance
	Actual (Unaudited)	Actual (Unaudited)	Increase /
	October-17	October-16	(Decrease)
<b>OPERATING REVENUES</b>			
Water Revenues	5,294,759	5,331,404	(36,645)
Wastewater Revenues	3,176,575	3,099,528	77,048
Legislative Surcharge	260,173	267,269	(7,096)
Other Revenues	42,711	36,293	6,418
System Development Charge	159,296	72,662	86,634
<b>Total Operating Revenues</b>	<b>8,933,513</b>	<b>8,807,155</b>	<b>126,358</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>			
Water Purchases	685,218	609,094	76,124
Power Purchases	1,192,451	1,006,355	186,096
Total Utility Costs	1,877,669	1,615,449	262,220
Salaries and Wages	1,456,170	1,413,608	42,561
Pension and Benefits	477,269	477,546	(276)
Total Salaries and Benefits	1,933,439	1,891,154	42,285
Capitalized Labor and Benefits	(200,000)	(262,516)	62,516
Net Salaries and Benefits	1,733,439	1,628,638	104,801
<b>Administrative and General Expenses</b>			
Sludge removal	115,630	140,487	(24,857)
Chemicals	197,525	174,001	23,524
Materials & Supplies	105,122	128,788	(23,666)
Transportation	45,914	53,744	(7,830)
Communications	11,526	10,884	643
Claims	3,237	22,151	(18,914)
Insurance	75,480	90,603	(15,123)
Training & Travel	4,053	23,055	(19,001)
Advertising	9,205	8,988	217
Miscellaneous	69,933	71,963	(2,030)
Total Administrative and General Expense	637,626	724,663	(87,037)
<b>Regulatory Expense</b>	<b>28,112</b>	<b>23,244</b>	<b>4,868</b>
<b>Bad Debts Provision</b>	<b>57,099</b>	<b>109,700</b>	<b>(52,601)</b>
<b>Depreciation Expense</b>	<b>1,528,175</b>	<b>1,329,008</b>	<b>199,167</b>
<b>Contractual Expense</b>			
Audit & Computer Maint.	57,241	76,901	(19,660)
Building rental	36,557	36,557	-
Equipment rental	33,393	59,374	(25,981)
Legal	600	1,305	(705)
Laboratory	39,075	10,627	28,449
Other	102,701	156,747	(54,046)
Total Contractual Expense	269,566	341,510	(71,944)
Retiree Supp. Annuities and health care costs	235,392	231,895	3,496
Contribution to Government of Guam	49,833	49,500	333
Total Retiree Benefits	285,225	281,395	3,830
<b>Total Operating Expenses</b>	<b>6,416,911</b>	<b>6,053,607</b>	<b>363,304</b>
<b>Earnings (Loss) from Operations</b>	<b>2,516,602</b>	<b>2,753,548</b>	<b>(236,946)</b>
Interest Income-2010/13/14/16 Series Bond	147,890	65,354	82,536
Interest Income-Other Funds	22,820	10,020	12,800
Interest Income-SDC	3,981	1,060	2,921
Interest Expense- 2010/13/14/16 Series Bond	(2,211,025)	(2,220,744)	9,719
Interest Expense- ST BOG	(18,493)	(43,736)	25,243
Federal Expenditures	-	(42,501)	42,501
Loss on Asset Disposal	-	(19,346)	19,346
AFUDC	625,000	1,172,241	(547,241)
Amortization of Discount, Premium and Issuance Costs	61,861	61,861	-
Loss on Defeasance Bond05 Refunding	(12,444)	(15,218)	2,775
Deferred outflows from pension	(48,010)	(104,481)	56,471
Prior Year Adjustment	-	(26,756)	26,756
Total non-operating revenues (expenses)	(1,428,419)	(1,162,246)	(266,174)
<b>Net Income (Loss) before capital contributions</b>	<b>1,088,182</b>	<b>1,591,302</b>	<b>(503,120)</b>
<b>Capital Contributions</b>			
Grants from US Government	-	1,838,776	(1,838,776)
Grants from GovGuam & Others	18,087	1,664	16,422
Other Contributions	-	-	-
Total Capital Contributions	18,087	1,840,440	(1,822,353)
<b>Change in Net Assets</b>	<b>1,106,269</b>	<b>3,431,743</b>	<b>(2,325,473)</b>
<b>Debt Service Calculation</b>			
Earnings From Operations	2,516,602	2,753,548	
System Development Charge	(159,296)	(72,662)	
Interest/Investment Income	22,820	10,020	
Retiree COLA	49,833	49,500	
Depreciation	1,528,175	1,329,008	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>3,958,135</b>	<b>4,069,414</b>	
Working Capital Reserve Available for Debt Service	935,321	934,811	
Transfer to Working Capital Debt Service Reserve	-	-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>4,893,456</b>	<b>5,004,225</b>	
<b>Debt Service</b>			
Principal	433,333	420,000	
Interest	2,063,402	1,626,858	
<b>Total</b>	<b>2,496,736</b>	<b>2,046,858</b>	
<b>Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)</b>	<b>1.59</b>	<b>1.99</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.96</b>	<b>2.44</b>	

CCU Regular Meeting November 22, 2017 - NEW BUSINESS

GUAM WATERWORKS AUTHORITY  
Statement of Operations and Retained Earnings (Unaudited)  
Comparative Budget vs. Actual for the period ending October 31, 2017 and 2016

SCHEDULE D

	Budget October-17	Year to Date Encumbered October-17	Actual (Unaudited) October-17	Variance Increase / (Decrease)
<b>OPERATING REVENUES</b>				
Water Revenues	5,743,160		5,294,759	(448,402)
Wastewater Revenues	3,228,257		3,176,575	(51,682)
Legislative Surcharge	291,896		260,173	(31,723)
Other Revenues	57,638		42,711	(14,927)
System Development Charge	46,136		159,296	113,160
<b>Total Operating Revenues</b>	<b>9,367,087</b>	<b>-</b>	<b>8,933,513</b>	<b>(433,574)</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>				
Water Purchases	721,113		685,218	(35,895)
Power Purchases	1,057,997		1,192,451	134,455
Total Utility Costs	1,779,110	-	1,877,669	98,559
Salaries and Wages	1,625,056		1,456,170	(168,886)
Pension and Benefits	584,558		477,269	(107,289)
Total Salaries and Benefits	2,209,614	-	1,933,439	(276,175)
Capitalized Labor and Benefits	(208,333)		(200,000)	8,333
Net Salaries and Benefits	2,001,281	-	1,733,439	(267,842)
<b>Administrative and General Expenses</b>				
Sludge removal	174,514		115,630	(58,884)
Chemicals	204,997		197,525	(7,471)
Materials & Supplies	277,900	116,763	105,122	(56,016)
Transportation	52,370		45,914	(6,456)
Communications	16,182		11,526	(4,655)
Claims	11,100		3,237	(7,863)
Insurance	104,757		75,480	(29,277)
Training & Travel	21,814		4,053	(17,761)
Advertising	13,910		9,205	(4,705)
Miscellaneous	115,515		69,933	(45,583)
Total Administrative and General Expense	993,059	116,763	637,626	(238,671)
<b>Regulatory Expense</b>	<b>22,086</b>		<b>28,112</b>	<b>6,026</b>
<b>Bad Debts Provision</b>	<b>57,103</b>		<b>57,099</b>	<b>(4)</b>
<b>Depreciation Expense</b>	<b>1,528,175</b>		<b>1,528,175</b>	<b>0</b>
<b>Contractual Expense</b>				
Audit & Computer Maint.	78,630	14,193	57,241	(7,197)
Building rental	37,955		36,557	(1,398)
Equipment rental	57,375		33,393	(23,981)
Legal	4,167		600	(3,567)
Laboratory	64,752		39,075	(25,677)
Other	130,363	13,344	102,701	(14,319)
Total Contractual Expense	373,241	27,537	269,566	(76,138)
Retiree Supp. Annuities and health care costs	240,008		235,392	(4,616)
Contribution to Government of Guam	49,500		49,833	333
Total Retiree Benefits	289,508	-	285,225	(4,283)
<b>Total Operating Expenses</b>	<b>7,043,563</b>	<b>144,299</b>	<b>6,416,911</b>	<b>(482,353)</b>
<b>Earnings (Loss) from Operations</b>	<b>2,323,524</b>	<b>(144,299)</b>	<b>2,516,602</b>	<b>48,779</b>
Interest Income-2010/13/14/16 Series Bond	15,727		147,890	132,163
Interest Income-Other Funds	2,935		22,820	19,885
Interest Income-SDC	2,414		3,981	1,567
Interest Expense- 2010/13/14/16 Series Bond	(2,625,587)		(2,211,025)	414,562
Interest Expense- ST BOG	(33,288)		(18,493)	14,795
Federal Expenditures	(51,332)		-	51,332
AFUDC	625,000		625,000	-
Amortization of Discount, Premium and Issuance Costs	(61,861)		61,861	123,722
Loss on Defeasance Bond05 Refunding	(15,218)		(12,444)	2,775
Deferred outflows from pension	(105,281)		(48,010)	57,271
Prior Year Adjustment	-		-	-
Total non-operating revenues (expenses)	(2,246,492)	-	(1,428,419)	818,072
<b>Net Income (Loss) before capital contributions</b>	<b>77,032</b>	<b>(144,299)</b>	<b>1,088,182</b>	<b>866,851</b>
<b>Capital Contributions</b>				
Grants from US Government	873,108		-	(873,108)
Grants from GovGuam & Others	-		18,087	18,087
Other Contributions	-		-	-
Total Capital Contributions	873,108	-	18,087	(855,021)
<b>Change in Net Assets</b>	<b>950,140</b>	<b>(144,299)</b>	<b>1,106,269</b>	<b>11,830</b>
<b>Debt Service Calculation</b>				
Earnings From Operations	2,323,524		2,516,602	
System Development Charge	(46,136)		(159,296)	
Interest/Investment Income	2,935		22,820	
Retiree COLA	49,500		49,833	
Depreciation	1,528,175		1,528,175	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>3,857,998</b>		<b>3,958,135</b>	
Working Capital Reserve Available for Debt Service	935,321		935,321	
Transfer to Working Capital Debt Service Reserve	(150,000)		-	
Transfer to Working Capital for O & M Reserve	(266,667)		-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>4,376,652</b>		<b>4,893,456</b>	
<b>Debt Service</b>				
Principal	433,333		433,333	
Interest	2,063,402		2,063,402	
<b>Total</b>	<b>2,496,736</b>		<b>2,496,736</b>	
<b>Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)</b>	<b>1.55</b>		<b>1.59</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.75</b>		<b>1.96</b>	

CCU Regular Meeting November 22, 2017 - NEW BUSINESS

GUAM WATERWORKS AUTHORITY  
Statement of Operations and Retained Earnings (Unaudited)  
Comparative for the period ending October 31, 2017 and 2016

SCHEDULE E

	Year to Date		Variance
	ACTUAL (Unaudited)	ACTUAL (Unaudited)	Increase /
	October-17	October-16	(Decrease)
<b>OPERATING REVENUES</b>			
Water Revenues	5,294,759	5,331,404	(36,645)
Wastewater Revenues	3,176,575	3,099,528	77,048
Legislative Surcharge	260,173	267,269	(7,096)
Other Revenues	42,711	36,293	6,418
System Development Charge	159,296	72,662	86,634
<b>Total Operating Revenues</b>	<b>8,933,513</b>	<b>8,807,155</b>	<b>126,358</b>
<b>OPERATING AND MAINTENANCE EXPENSES</b>			
Water Purchases	685,218	609,094	76,124
Power Purchases	1,192,451	1,006,355	186,096
Total Utility Costs	<b>1,877,669</b>	<b>1,615,449</b>	<b>262,220</b>
Salaries and Wages	1,456,170	1,413,608	42,561
Pension and Benefits	477,269	477,546	(276)
Total Salaries and Benefits	<b>1,933,439</b>	<b>1,891,154</b>	<b>42,285</b>
Capitalized Labor and Benefits	(200,000)	(262,516)	62,516
Net Salaries and Benefits	<b>1,733,439</b>	<b>1,628,638</b>	<b>104,801</b>
<b>Administrative and General Expenses</b>			
Sludge removal	115,630	140,487	(24,857)
Chemicals	197,525	174,001	23,524
Materials & Supplies	105,122	128,788	(23,666)
Transportation	45,914	53,744	(7,830)
Communications	11,526	10,884	643
Claims	3,237	22,151	(18,914)
Insurance	75,480	90,603	(15,123)
Training & Travel	4,053	23,055	(19,001)
Advertising	9,205	8,988	217
Miscellaneous	69,933	71,963	(2,030)
Total Administrative and General Expense	<b>637,626</b>	<b>724,663</b>	<b>(87,037)</b>
<b>Regulatory Expense</b>	<b>28,112</b>	<b>23,244</b>	<b>4,868</b>
<b>Bad Debts Provision</b>	<b>57,099</b>	<b>109,700</b>	<b>(52,601)</b>
<b>Depreciation Expense</b>	<b>1,528,175</b>	<b>1,329,008</b>	<b>199,167</b>
<b>Contractual Expense</b>			
Audit & Computer Maint.	57,241	76,901	(19,660)
Building rental	36,557	36,557	-
Equipment rental	33,393	59,374	(25,981)
Legal	600	1,305	(705)
Laboratory	39,075	10,627	28,449
Other	102,701	156,747	(54,046)
Total Contractual Expense	<b>269,566</b>	<b>341,510</b>	<b>(71,944)</b>
Retiree Supp. Annuities and health care costs	235,392	231,895	3,496
Contribution to Government of Guam	49,833	49,500	333
Total Retiree Benefits	<b>285,225</b>	<b>281,395</b>	<b>3,830</b>
<b>Total Operating Expenses</b>	<b>6,416,911</b>	<b>6,053,607</b>	<b>363,304</b>
<b>Earnings (Loss) from Operations</b>	<b>2,516,602</b>	<b>2,753,548</b>	<b>(236,946)</b>
Interest Income-2010/13/14/16 Series Bond	147,890	65,354	82,536
Interest Income-Other Funds	22,820	10,020	12,800
Interest Income-SDC	3,981	1,060	2,921
Interest Expense- 2010/13/14/16 Series Bond	(2,211,025)	(2,220,744)	9,719
Interest Expense- ST BOG	(18,493)	(43,736)	25,243
Federal Expenditures	-	(42,501)	42,501
Loss on Asset Disposal	-	(19,346)	19,346
AFUDC	625,000	1,172,241	(547,241)
Amortization of Discount, Premium and Issuance Costs	61,861	61,861	-
Loss on Defeasance Bond05 Refunding	(12,444)	(15,218)	2,775
Deferred outflows from pension	(48,010)	(104,481)	56,471
Prior Year Adjustment	-	(26,756)	26,756
Total non-operating revenues (expenses)	<b>(1,428,419)</b>	<b>(1,162,246)</b>	<b>(266,174)</b>
<b>Net Income (Loss) before capital contributions</b>	<b>1,088,182</b>	<b>1,591,302</b>	<b>(503,120)</b>
<b>Capital Contributions</b>			
Grants from US Government	-	1,838,776	(1,838,776)
Grants from GovGuam & Others	18,087	1,664	16,422
Other Contributions	-	-	-
Total Capital Contributions	<b>18,087</b>	<b>1,840,440</b>	<b>(1,822,353)</b>
<b>Change in Net Assets</b>	<b>1,106,269</b>	<b>3,431,743</b>	<b>(2,325,473)</b>
<b>Debt Service Calculation</b>			
Earnings From Operations	2,516,602	2,753,548	
System Development Charge	(159,296)	(72,662)	
Interest/Investment Income	22,820	10,020	
Retiree COLA	49,833	49,500	
Depreciation	1,528,175	1,329,008	
<b>Balance Available for Debt Service per Section 6.12</b>	<b>3,958,135</b>	<b>4,069,414</b>	
Working Capital Reserve Available for Debt Service	933,333	934,811	
Transfer to Working Capital Debt Service Reserve	-	-	
<b>Balance Available for Debt Service inclusive of reserves</b>	<b>4,891,468</b>	<b>5,004,225</b>	
<b>Debt Service</b>			
Principal	433,333	420,000	
Interest	2,063,402	1,626,858	
<b>Total</b>	<b>2,496,736</b>	<b>2,046,858</b>	
<b>Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)</b>	<b>1.59</b>	<b>1.99</b>	
<b>Debt Service Coverage (1.75X) inclusive of reserves (PUC)</b>	<b>1.96</b>	<b>2.44</b>	

## SCHEDULE F

Bond Compliance

		<b>(\$\$\$) Per Indenture</b>	<b>As of 10/31/17 (\$\$\$) Bond 2010/2013/2014/2016</b>
•	<div>Operation and Maintenance Fund-BOG</div> <i>Equivalent to 55 days of the annual O&amp;M budget less depreciation</i>	\$10.5M	\$10.5M
•	<div>Bond Reserve Fund - US Bank</div> <i>Fully funded- Principal and Interest (Bond Series 2010, 2013, 2014 Refunding and 2016)</i>	\$34.9M	\$34.9M
•	<div>Operation, Maintenance, Renewal and Replacement Reserve Fund-BOG Trust</div> <i>Equivalent to 1/4 of the annual O&amp;M budget &amp; CIP budget to be funded in 5 years (\$2M/year)</i>	\$17.4M	\$17.4M
•	<div>Capital Improvement Fund</div> <i>Balance remaining in the Revenue Fund after the foregoing deposits</i>	\$5.6K	\$5.6K
•	<div>Capitalized Interest Fund</div>	\$2.4M	\$2.4M

**GUAM WATERWORKS AUTHORITY**  
**Restricted and Unrestricted Cash Summary**  
**FY 2018**

**SCHEDULE G**

Description	Unaudited October 31, 2017	Unaudited September 30, 2017	Increase (Decrease)
<b>UNRESTRICTED</b>			
Change Fund	2,000	2,000	0
Petty Cash	5,000	5,000	0
BOG - General Fund	5,094,206	4,838,736	255,470
BOG - PRN Payroll	30,039	30,039	0
<b>Sub-total Unrestricted</b>	<b>5,131,245</b>	<b>4,875,775</b>	<b>255,470</b>
<b>RESTRICTED</b>			
BOG - Sweep Account	10,037	-	10,037
Bank of Hawaii	86,361	134,657	(48,296)
ANZ Bank	77	-	77
First Hawaiian Bank	10,654	10,284	370
Bank Pacific	12,932	15,825	(2,894)
Community First FCU	3,830	3,449	381
BOG - Customer Refunds	1,832,589	1,831,426	1,163
Bank Pacific - Surcharge	1,165,604	278,104	887,500
Bank Pacific - Escrow Deposit	666,040	666,040	0
BOG Emergency Reserve Fund	6,122	6,122	1
BOG - Revenue Trust	211,378	184,190	27,188
BOG Revenue Trust Fund	6,924,261	7,782,227	(857,966)
BOG Capital Improvement Fund-Bond	5,598	5,598	0
BOG Capital Improvement Revenue Fund	880,235	-	880,235
BOG-O & M Reserve	13,523,792	13,516,540	7,251
BOG-Debt Service Reserve	11,223,852	11,217,733	6,119
BOG-CAPEX Reserve	15,469,637	15,462,869	6,768
BOG Sewer Hookup Revolving Fund	64,205	63,590	615
BOG Subord. Sec. Fund	859,233	859,233	0
BOG Operation and Maintenance Fund	3,083,482	3,083,482	0
	<b>56,039,919</b>	<b>55,121,369</b>	<b>918,550</b>
BOG - SDC Deposit	2,162,593	1,486,219	676,374
BOG - SDC CDs	8,000,000	8,500,000	(500,000)
<b>Total Restricted</b>	<b>66,202,512</b>	<b>65,107,587</b>	<b>1,094,924</b>
<b>Reserve Funds</b>			
BOG Series 05 OMRRRF Fund	17,423,213	17,423,213	0
BOG Series 10 Construction Fund	9,083,302	9,299,311	(216,010)
BOG Series 13 Construction Fund	73,218,819	74,461,765	(1,242,947)
BOG Series 14 Refunding Construction Fund	771,720	771,281	439
BOG Series 16 Construction Fund	132,149,734	132,811,449	(661,714)
BOG Series 16 Cap Int Fund	2,383,864	1,782,982	600,882
<b>Total Restricted - Held by Trustee</b>	<b>235,030,652</b>	<b>236,550,002</b>	<b>(1,519,350)</b>
USB Series 2010 Debt Service Fund	2,692,950	2,020,121	672,829
USB Series 2010 Debt Service Reserve Fund	7,566,460	7,566,460	0
USB Series 2013 Debt Service Fund	3,115,232	2,336,754	778,478
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	0
USB Series 2014 Refunding Debt Service Fund	2,394,690	1,796,559	598,131
USB Series 2014 Refunding Debt Service Reserve Fund	7,717,841	7,707,602	10,239
USB Series 2016 Debt Service Fund	130	130	0
USB Series 2016 Debt Service Reserve Fund	7,585,568	7,582,725	2,843
<b>Total Investments</b>	<b>43,104,560</b>	<b>41,042,038</b>	<b>2,062,521</b>
<b>Total Restricted and Unrestricted Cash</b>	<b>349,468,968</b>	<b>347,575,403</b>	<b>1,893,566</b>

**SCHEDULE H**

**Guam Waterworks Authority**  
**Statement of Cash Flows (Unaudited)**  
**FY 2018**

**YTD**  
**Oct-17**

**Increase (decrease) in cash****Cash flows from operating activities:**

Cash received from trade and others	8,853,961
Cash payments to suppliers/contractors for goods and services	(2,892,446)
Cash payments to employees for services	(2,824,538)

**Net cash provided by operating activities**


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3,136,977
**Cash flows from capital and related financing activities:**

Contributed capital received (grants)	2,735,438
Acquisition of utility plant	(3,820,507)
Repayment of Long Term Debt	(61,860)
Interest expense	(283,593)

**Net cash provided by (used in) capital and related financing activities**


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(1,430,522)
**Cash flows from investing activities:**

Transfers from (to) restricted fund	(1,625,676)
Interest income received	174,691

**Net cash provided by investing activities**


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(1,450,985)

Net increase (decrease) in cash

255,470

Unrestricted cash at beginning of the period

4,875,775

**Unrestricted cash at end of period**


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5,131,245

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

**Operating Income (loss)**

2,470,903

Adjustments to reconcile to net cash provided by operating activities:

Depreciation expense	1,528,175
Other Expense/income	105,109

(Increase) decrease in assets:

Accounts receivable	(80,636)
Materials and supplies inventory	(394,592)
Other Assets	(186,620)

Increase (decrease) in liabilities:

Accounts, Contractors and Retention Payables	547,439
Accrued payroll	(853,883)
Customer and Other deposits	1,083

**Net cash provided by operating activities**


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3,136,977

Guam Waterworks Authority  
Accounts Receivable - Government  
As of October 31, 2017

## SCHEDULE I

Customer Name	No. of Accounts	A G I N G					Outstanding Balance
		Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	
Guam International Airport Authority	4	31,829	44,169	27,962	31,277	125,271	260,508
Guam Power Authority	21	30,776	1,000	79,697	70,420	9,452	191,346
Port Authority of Guam	1	56,411	11,365	-	-	-	67,776
Guam Memorial Hospital Authority	3	38,198	-	-	-	-	38,198
University of Guam	3	5,290	-	-	-	-	5,290
Guam Housing & Urban Renewal Authority	9	6,660	-	-	-	184	6,844
Guam Community College	3	6,369	-	-	-	-	6,369
Guam Housing Corporation	1	33	-	-	-	-	33
<b>Autonomous Agencies</b>	<b>45</b>	<b>175,565</b>	<b>56,534</b>	<b>107,659</b>	<b>101,697</b>	<b>134,907</b>	<b>576,363</b>
Department of Education	49	199,985	250,685	119,887	-	22,821	593,377
Department of Parks & Recreation	21	195,431	49,752	50,866	36,425	84,001	416,475
Department of Public Health & Social Services	5	2,646	1,123	995	-	103,692	108,457
Mayors' Council of Guam	44	13,631	4,614	7,575	-	7,551	33,370
Department of Chamorro Affairs	7	9,319	5,000	-	-	-	14,319
Department of Agriculture	6	3,611	5,316	5,310	-	-	14,238
Guam Fire Department	11	7,518	3,080	90	-	-	10,688
Department of Public Works	9	5,108	811	-	-	-	5,919
Department of Youth Affairs	4	1,430	4,051	-	-	-	5,481
Department of Mental Health and Substance Abuse	3	2,270	1,339	-	-	-	3,609
Office of The Governor	2	3,219	-	-	-	-	3,219
Sanctuary Inc	1	2,750	-	-	-	-	2,750
Department of Administration	2	467	134	103	832	-	1,535
GHURA-Agafa Gumas Park	1	28	47	33	119	604	831
Department of Customs & Quarantine	1	389	374	-	-	-	763
New Guam Mental Health	1	721	-	-	-	-	721
Guam Veterans Affairs Office	2	233	483	-	-	-	716
Guam Police Department	1	679	-	-	-	-	679
Division of Senior Citizens, DPHSS	2	322	351	-	-	-	672
Guam Legislature	1	84	93	112	-	-	289
Guam Environmental Protection Agency	2	234	-	-	-	-	234
Department of Agriculture-Fisheries	1	105	116	-	-	-	220
The Office of the Dededo Mayor	1	121	47	45	-	-	213
Merizo Mayor	1	109	28	-	-	-	137
Guam Public Library	3	132	-	-	-	-	132
Department of Corrections	1	53	-	-	-	-	53
<b>Line Agencies</b>	<b>182</b>	<b>450,594</b>	<b>327,442</b>	<b>185,015</b>	<b>37,375</b>	<b>218,669</b>	<b>1,219,096</b>
<b>Total as of October 31, 2017</b>	<b>227</b>	<b>626,160</b>	<b>383,977</b>	<b>292,675</b>	<b>139,072</b>	<b>353,576</b>	<b>1,795,459</b>
<b>Total as of September 30, 2017</b>	<b>232</b>	<b>713,084</b>	<b>442,522</b>	<b>169,120</b>	<b>72,476</b>	<b>396,347</b>	<b>1,793,549</b>
<b>% Increase / (Decrease)</b>	<b>-2%</b>	<b>-12%</b>	<b>-13%</b>	<b>73%</b>	<b>92%</b>	<b>-11%</b>	<b>0%</b>

CCU Regular Meeting November 22, 2017 - NEW BUSINESS

GUAM WATERWORKS AUTHORITY  
2010 Series Bond Project Status  
As of October 31, 2017

SCHEDULE J

PROJECT NAME	ORIGINAL		Adjusted Project Cost	EXPENDITURES	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES		UNOBLIGATED PROJECT COST	Construction fund
	APPROVED PROJECT COST	AS OF 10/31/17		AND ENCUMBRANCES		balance AS OF 10/31/17			
Ground Water Disinfection	\$	-	\$ 500,000	\$ 438,141	\$ 61,859	\$ 500,000	\$ 0	\$ 61,859	
"A" Series Well Transmission Line	\$	600,000	\$ 518,144	\$ 474,434	\$ 1,274	\$ 475,709	\$ 42,435	\$ 43,710	
Water Booster Pump Station	\$	500,000	\$ 500,000	\$ 418,844	\$ 81,156	\$ 500,000	\$ (0)	\$ 81,156	
Meter Replacement Program	\$	2,500,000	\$ 10,300,000	\$ 10,254,220	\$ 19,409	\$ 10,273,628	\$ 26,372	\$ 45,780	
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	\$ 179,638	\$ 20,362	\$ 200,000	\$ -	\$ 20,362	
Implement Ground Water Rule	\$	-	\$ 1,700,000	\$ 1,499,464	\$ 200,535	\$ 1,700,000	\$ 1	\$ 200,536	
Brigade II (Ugum Lift) BPS Upgrade	\$	1,200,000	\$ 1,700,000	\$ 135,895	\$ 202,199	\$ 337,895	\$ 1,362,105	\$ 1,564,305	
Deep Well Rehabilitation	\$	548,000	\$ 548,000	\$ 548,000	\$ -	\$ 548,000	\$ -	\$ -	
New Deep Wells at Down Hard	\$	3,773,000	\$ 638,252	\$ 485,743	\$ -	\$ 485,743	\$ 152,509	\$ 152,509	
Rehabilitation of Asan Springs	\$	900,000	\$ 900,000	\$ 188,771	\$ 152,068	\$ 340,838	\$ 559,162	\$ 711,229	
Master Meters	\$	1,600,000	\$ 1,600,000	\$ 1,421,267	\$ 68,690	\$ 1,489,957	\$ 110,043	\$ 178,733	
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	\$ 900,000	\$ 692,926	\$ 82,076	\$ 775,002	\$ 124,998	\$ 207,074	
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	\$ 2,000,000	\$ 890,583	\$ 573,410	\$ 1,463,993	\$ 536,007	\$ 1,109,417	
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	\$ 451,462	\$ 22,698	\$ 474,160	\$ 0	\$ 22,698	
Ugum Water Treatment Plant Reservoir	\$	3,672,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Water Audit Program & Water Loss Control Plan	\$	-	\$ 100,000	\$ 15,031	\$ 63,428	\$ 78,459	\$ 21,541	\$ 84,970	
Production Plan / Reduce Navy Purchases	\$	-	\$ 100,000	\$ 94,286	\$ 5,714	\$ 100,000	\$ -	\$ 5,714	
Hydraulic Assessment of Tank	\$	-	\$ 500,000	\$ 497,004	\$ 2,996	\$ 500,000	\$ -	\$ 2,996	
Agana Heights & Chaot Tanks	\$	-	\$ 4,700,000	\$ 4,327,370	\$ 372,630	\$ 4,700,000	\$ -	\$ 372,630	
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	\$	-	\$ 1,900,000	\$ 1,750,355	\$ 97,659	\$ 1,848,013	\$ 51,987	\$ 149,645	
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Assessment of maloljoj Elevated & Yigo Elevated	\$	-	\$ 200,000	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	
Public Water System Asser Inventory/Condition Assesment	\$	-	\$ 100,000	\$ 96,554	\$ 3,446	\$ 100,000	\$ -	\$ 3,446	
Public Water System GIS & Mapping	\$	-	\$ 50,000	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	
Wastewater System Planning	\$	1,500,000	\$ 1,500,000	\$ 1,465,858	\$ 8,142	\$ 1,474,000	\$ 26,000	\$ 34,142	
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	\$	-	\$ 1,105,000	\$ 718,036	\$ 283,287	\$ 1,001,323	\$ 103,677	\$ 386,964	
Facilities Plan/Design for Baza Gardens WWTP	\$	1,250,000	\$ 1,250,000	\$ 1,239,250	\$ 10,750	\$ 1,250,000	\$ -	\$ 10,750	
Facilities Plan/Design for Agat-Santa Rita WWTP	\$	900,000	\$ 899,630	\$ 881,749	\$ 17,881	\$ 899,630	\$ -	\$ 17,881	
Priority 1 Sewer Upgrades - Baza Gardens WWTP	\$	650,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Baza Gardens STP Replacement	\$	3,567,000	\$ 1,301,947	\$ 268,150	\$ 48,850	\$ 317,000	\$ 984,947	\$ 1,033,797	
Facilities Plan/Design for Umatac Merizo WWTP	\$	-	\$ 900,000	\$ 683,211	\$ 170,646	\$ 853,858	\$ 46,142	\$ 216,789	
Agat/Santa Rita STP Replacement	\$	2,968,000	\$ 2,218,000	\$ 2,215,591	\$ 2,109	\$ 2,217,701	\$ 300	\$ 2,409	
Northern District WWTP Primary Treatment Upgrades	\$	-	\$ 11,750,000	\$ 11,532,253	\$ 211,261	\$ 11,743,514	\$ 6,486	\$ 217,747	
Biosolids Management Plan	\$	-	\$ 200,000	\$ 196,414	\$ 3,586	\$ 200,000	\$ -	\$ 3,586	
Agana WWTP Interim Measures	\$	-	\$ 11,500,000	\$ 11,242,386	\$ 57,614	\$ 11,300,000	\$ 200,000	\$ 257,614	
I&I SSES Southern	\$	-	\$ 800,000	\$ 733,872	\$ 66,129	\$ 800,000	\$ (0)	\$ 66,128	
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	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	
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	\$ 335,378	\$ 18,849	\$ 354,227	\$ 0	\$ 18,849	
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	\$ 193,989	\$ 56,011	\$ 250,000	\$ -	\$ 56,011	
SCADA Improvements - Phase 2	\$	1,100,000	\$ 1,056,986	\$ 1,027,424	\$ 29,562	\$ 1,056,986	\$ -	\$ 29,562	
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	\$ 500,000	\$ 461,986	\$ 37,701	\$ 499,687	\$ 313	\$ 38,014	
General Plant Improvements / Water	\$	14,370,000	\$ 7,241,000	\$ 7,241,000	\$ 0	\$ 7,241,000	\$ 0	\$ 0	
Interest Earned	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 64,115	
Total Construction Fund (2010 Series Revenue Bond)	\$	87,402,000	\$ 87,402,000	\$ 78,382,814	\$ 3,664,161	\$ 82,046,975	\$ 4,355,025	\$ 9,083,302	

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



**GUAM WATERWORKS AUTHORITY**  
**2013 Series Bond Project Status**  
**As of October 31, 2017**

**SCHEDULE K**

PROJECT NAME	ORIGINAL		Adjusted Project Cost	EXPENDITURES AS OF 10/31/17	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND		UNOBLIGATED PROJECT COST	Construction fund balance	
	APPROVED PROJECT COST					ENCUMBRANCES			AS OF 10/31/17	
Santa Rita Springs Booster Pump Rehab Phase II	\$ 100,000	\$ 100,000	\$ 100,000	\$ 61,482	\$ 38,518	\$ 100,000	\$ -	\$ 38,518		
"A" Series Well Transmission Line	\$ 400,000	\$ 400,000	\$ 400,000	\$ 314,479	\$ 55,367	\$ 369,846	\$ 30,154	\$ 85,521		
Water Booster Pump Station	\$ 6,000,000	\$ 1,861,000	\$ 1,861,000	\$ 1,656,428	\$ 23,536	\$ 1,679,964	\$ 181,036	\$ 204,572		
Meter Replacement Program		\$ 999,000	\$ 999,000	\$ 996,532	\$ -	\$ 996,532	\$ 2,468	\$ 2,468		
Barriqada Tank Repair/Replacement	\$ 6,000,000	\$ 4,987,000	\$ 4,987,000	\$ 4,924,959	\$ 62,041	\$ 4,987,000	\$ 0	\$ 62,041		
Leak Detection	\$ 100,000	\$ 20,000	\$ 20,000	\$ 16,916	\$ -	\$ 16,916	\$ 3,084	\$ 3,084		
Potable Water System Planning	\$ 800,000	\$ 624,000	\$ 624,000	\$ 598,825	\$ 25,175	\$ 624,000	\$ -	\$ 25,175		
Implement Ground Water Rule	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -		
Deep Well Rehabilitation	\$ 800,000	\$ 200,000	\$ 200,000	\$ 189,930	\$ 10,071	\$ 200,000	\$ (0)	\$ 10,070		
New Deep Wells at Down Hard	\$ 2,000,000	\$ 810,000	\$ 810,000			\$ -	\$ 810,000	\$ 810,000		
Master Meters	\$ 4,000,000	\$ 784,000	\$ 784,000	\$ 531,188	\$ 180,872	\$ 712,060	\$ 71,940	\$ 252,812		
Uqum Water Treatment Plant Intake	\$ 1,000,000	\$ 982,000	\$ 982,000	\$ 578,858	\$ 280,943	\$ 859,801	\$ 122,199	\$ 403,142		
Water Wells	\$ 4,200,000	\$ 4,200,000	\$ 4,200,000	\$ 2,279,115	\$ 750,914	\$ 3,030,029	\$ 1,169,971	\$ 1,920,885		
Water Distribution System	\$ 12,000,000	\$ 11,151,000	\$ 11,151,000	\$ 4,366,442	\$ 4,680,418	\$ 9,046,860	\$ 2,104,140	\$ 6,784,558		
Pressure Zone Realignment /	\$ 1,000,000	\$ 431,000	\$ 431,000	\$ 321,651	\$ 1,074	\$ 322,725	\$ 108,275	\$ 109,349		
Mechanical/Electrical Equipment	\$ 430,000	\$ 430,000	\$ 430,000	\$ 328,686	\$ 98,112	\$ 426,798	\$ 3,202	\$ 101,314		
Water Reservoir Internal/External	\$ 800,000	\$ -	\$ -			\$ -	\$ -	\$ -		
Water System Reservoirs 2005 Improvements	\$ 21,000,000	\$ 13,878,000	\$ 13,878,000	\$ 10,089,027	\$ 3,660,426	\$ 13,749,454	\$ 128,547	\$ 3,788,973		
Uqum Water Treatment Plant Reservoir	\$ 7,000,000	\$ 90,000	\$ 90,000			\$ -	\$ 90,000	\$ 90,000		
Aqana Heights & Chaot Tanks	\$ 4,500,000	\$ 3,280,000	\$ 3,280,000	\$ 233,265	\$ 47,022	\$ 280,287	\$ 2,999,713	\$ 3,046,735		
Tank Major Repair Yigo#1 Mangilao#2 Aqat#2	\$ 13,500,000	\$ 11,605,000	\$ 11,605,000	\$ 847,731	\$ 10,757,269	\$ 11,605,000	\$ 0	\$ 10,757,270		
Tank Major Repair Yigo#1 Mangilao#2 Aqat#2	\$ 8,000,000	\$ -	\$ -			\$ -	\$ -	\$ -		
Assessment of maloilo Elevated & Yigo Elevated	\$ 500,000	\$ 485,117	\$ 485,117	\$ 461,813	\$ 23,304	\$ 485,117	\$ -	\$ 23,304		
Fire Hydrant Replacement Program	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -		
Wastewater System Planning	\$ 800,000	\$ 651,000	\$ 651,000	\$ 550,480	\$ 100,520	\$ 651,000	\$ (0)	\$ 100,520		
Lift Station Upgrades	\$ 5,000,000	\$ 946,000	\$ 946,000	\$ 561,748	\$ 363	\$ 562,111	\$ 383,889	\$ 384,252		
Wastewater Collection System Repl/Rehab	\$ 6,500,000	\$ 780,000	\$ 780,000	\$ 476,682	\$ 168,631	\$ 645,314	\$ 134,687	\$ 303,318		
Baza Gardens STP Replacement		\$ 3,114,883	\$ 3,114,883	\$ 889,234	\$ 2,225,634	\$ 3,114,869	\$ 15	\$ 2,225,649		
Facilities Plan/Design for Umatat-Merizo WWTP		\$ 473,000	\$ 473,000	\$ 335,000	\$ 36,699	\$ 371,699	\$ 101,301	\$ 138,000		
Agat/Santa Rita STP Replacement	\$ 19,000,000	\$ 67,200,000	\$ 67,200,000	\$ 29,069,906	\$ 38,130,093	\$ 67,200,000	\$ 0	\$ 38,130,094		
Agana WWTP Interim Measures		\$ 673,000	\$ 673,000	\$ 548,597	\$ 124,403	\$ 673,000	\$ (0)	\$ 124,403		
Umatat Merizo Replacement	\$ 2,000,000	\$ -	\$ -			\$ -	\$ -	\$ -		
Wastewater Pump Station Electrical Upgrade	\$ 620,000	\$ 620,000	\$ 620,000	\$ 91,348	\$ 8,513	\$ 99,861	\$ 520,139	\$ 528,652		
Electrical Upgrade - Water Wells	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,480,769	\$ 19,230	\$ 1,500,000	\$ 0	\$ 19,231		
Electrical Upgrade - Water Booster	\$ 325,000	\$ 2,000	\$ 2,000			\$ -	\$ 2,000	\$ 2,000		
Electrical Upgrade - Water Booster	\$ 350,000	\$ 200,000	\$ 200,000	\$ 977	\$ -	\$ 977	\$ 199,023	\$ 199,023		
Electrical Upgrade - Other Water	\$ 250,000	\$ 150,000	\$ 150,000	\$ 60,700	\$ -	\$ 60,700	\$ 89,300	\$ 89,300		
SCADA Improvements - Phase 3	\$ 1,850,000	\$ 923,000	\$ 923,000	\$ 427,949	\$ 294,410	\$ 722,359	\$ 200,641	\$ 495,051		
SCADA Improvements - Phase 4	\$ 500,000	\$ -	\$ -			\$ -	\$ -	\$ -		
Laboratory Modernization	\$ 1,500,000	\$ 1,173,000	\$ 1,173,000	\$ 1,137,574	\$ 33,891	\$ 1,171,465	\$ 1,535	\$ 35,426		
Land Survey	\$ 2,000,000	\$ 2,000	\$ 2,000	\$ 1,038	\$ 15	\$ 1,053	\$ 948	\$ 963		
General Plant Improvements / Water	\$ 2,000,000	\$ 2,600,000	\$ 2,600,000	\$ 1,265,043	\$ 1,176,695	\$ 2,441,737	\$ 158,263	\$ 1,334,957		
Allowance for COI								\$ 275,005		
Interest Earned								\$ 313,186		
<b>Total Construction Fund (2013 Series Revenue Bond)</b>	<b>\$ 139,325,000</b>	<b>\$ 139,325,000</b>	<b>\$ 139,325,000</b>	<b>\$ 66,694,373</b>	<b>\$ 63,014,159</b>	<b>\$ 129,708,532</b>	<b>\$ 9,616,468</b>	<b>\$ 73,218,819</b>		

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

## CCU Regular Meeting November 22, 2017 - NEW BUSINESS

GUAM WATERWORKS AUTHORITY  
2014 Series Refunded Bond Project Status  
As of October 31, 2017

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT	ADJUSTED PROJECT COST	EXPENDITURES AS OF 10/31/17	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	20% PUC AS OF 10/31/17	Construction fund balance AS OF 10/31/17
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	\$ -		\$ -
Northern Treatment Plant		\$ -	-		\$ -	\$ -		\$ -
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 Reducti	\$ 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	3,790,888	\$ 42,287	\$ 3,833,175	\$ (0)	\$ 482,600	\$ 42,287
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	565,670	\$ 12,166	\$ 577,836	\$ 0	\$ 160,000	\$ 12,166
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	88,891,990	\$ 758,873.38	\$ 89,711,543	\$ 1	\$ 13,990,813	\$ 768,726
Interest Earned	\$ 6,781,612	\$ (0)				\$ (0)		\$ 2,994
Total Project Cost Funding	\$ 89,711,698	\$ 89,711,698	88,891,990	\$ 758,873.38	\$ 89,711,543	\$ 1	\$ 13,990,813	\$ 771,721

**GUAM WATERWORKS AUTHORITY**  
**2016 Series Bond Project Status**  
**As of October 31, 2017**

**SCHEDULE M**

PROJECT NAME	ORIGINAL	Adjusted Project Cost	EXPENDITURES AS OF 10/31/17	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND		UNOBLIGATED PROJECT COST	Construction fund balance	
	APPROVED PROJECT COST				ENCUMBRANCES	ENCUMBRANCES		AS OF 10/31/17	AS OF 10/31/17
Water Booster Pump Station	\$ 4,139,000	\$ 4,139,000			\$ -	\$ -	\$ 4,139,000	\$ -	\$ 4,139,000
Meter Replacement Program	\$ 4,501,000	\$ 4,501,000		\$ 150,000	\$ 150,000	\$ -	\$ 4,351,000	\$ -	\$ 4,501,000
Barriqada Tank Repair/Replacement	\$ 1,013,000	\$ 1,013,000		\$ -	\$ -	\$ -	\$ 1,013,000	\$ -	\$ 1,013,000
Leak Detection	\$ 1,180,000	\$ 1,180,000		\$ -	\$ -	\$ -	\$ 1,180,000	\$ -	\$ 1,180,000
Potable Water System Planning	\$ 2,276,000	\$ 2,276,000	\$ 159,105	\$ 317,189	\$ 476,294	\$ -	\$ 1,799,706	\$ -	\$ 2,116,895
Deep Well Rehabilitation	\$ 250,000	\$ 250,000		\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000
New Deep Wells at Down Hard	\$ 1,190,000	\$ 1,190,000			\$ -	\$ -	\$ 1,190,000	\$ -	\$ 1,190,000
Master Meters	\$ 3,616,000	\$ 3,616,000		\$ 151,539	\$ 151,539	\$ -	\$ 3,464,461	\$ -	\$ 3,616,000
Uqum Water Treatment Plant Intake	\$ 18,000	\$ 18,000			\$ -	\$ -	\$ 18,000	\$ -	\$ 18,000
Water Wells	\$ 2,500,000	\$ 2,500,000			\$ -	\$ -	\$ 2,500,000	\$ -	\$ 2,500,000
Water Distribution System	\$ 2,049,000	\$ 49,000			\$ -	\$ -	\$ 49,000	\$ -	\$ 49,000
Pressure Zone Realignment /	\$ 1,141,000	\$ 1,141,000			\$ -	\$ -	\$ 1,141,000	\$ -	\$ 1,141,000
Mechanical/Electrical Equipment	\$ 100,000	\$ 100,000			\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000
Water Reservoir Internal/External	\$ 800,000	\$ 800,000			\$ -	\$ -	\$ 800,000	\$ -	\$ 800,000
Water System Reservoirs 2005 Improvements	\$ 42,350,000	\$ 28,350,000	\$ 456,038	\$ 1,893,343	\$ 2,349,381	\$ -	\$ 26,000,620	\$ -	\$ 27,893,963
Uqum Water Treatment Plant Reservoir	\$ 6,410,000	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
Water Audit Program & Water Loss Control Plan	\$ 1,000,000	\$ 1,000,000			\$ -	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000
Aqana Heights & Chaot Tanks	\$ 1,220,000	\$ 1,220,000			\$ -	\$ -	\$ 1,220,000	\$ -	\$ 1,220,000
Tank Major Repair Yiqo#1 Manqilao#2 Aqat#2	\$ 1,895,000	\$ 1,895,000			\$ -	\$ -	\$ 1,895,000	\$ -	\$ 1,895,000
Tank Major Repair Yiqo#1 Manqilao#2 Aqat#2	\$ 10,500,000	\$ 7,409,830		\$ 1,822,133	\$ 1,822,133	\$ -	\$ 5,587,697	\$ -	\$ 7,409,830
Fire Hydrant Replacement Program	\$ 2,000,000	\$ 2,000,000			\$ -	\$ -	\$ 2,000,000	\$ -	\$ 2,000,000
						\$ -	\$ -		
Wastewater System Planning	\$ 349,000	\$ 349,000	\$ 30,708	\$ 282,275	\$ 312,983	\$ -	\$ 36,017	\$ -	\$ 318,292
Lift Station Upgrades	\$ 2,404,000	\$ 2,404,000	\$ 37,571	\$ 227,184	\$ 264,755	\$ -	\$ 2,139,245	\$ -	\$ 2,366,429
Wastewater Collection System Repl/Rehab	\$ 2,920,000	\$ 2,920,000			\$ -	\$ -	\$ 2,920,000	\$ -	\$ 2,920,000
Baza Gardens STP Replacement	\$ 16,700,000	\$ 29,400,170	\$ 5,556,788	\$ 23,642,302	\$ 29,199,091	\$ -	\$ 201,079	\$ -	\$ 23,843,382
Facilities Plan/Design for Umatac-Merizo WWTP	\$ 527,000	\$ 527,000	\$ 190,947	\$ 61,158	\$ 252,105	\$ -	\$ 274,895	\$ -	\$ 336,053
Aqat/Santa Rita STP Replacement	\$ 3,000,000	\$ 3,000,000	\$ 337,891	\$ 348,828	\$ 686,719	\$ -	\$ 2,313,281	\$ -	\$ 2,662,109
Aqana WWTP Interim Measures	\$ 827,000	\$ 827,000			\$ -	\$ -	\$ 827,000	\$ -	\$ 827,000
Umatac Merizo Replacement	\$ 8,000,000	\$ 20,800,000	\$ 199,684	\$ 20,574,598	\$ 20,774,282	\$ -	\$ 25,718	\$ -	\$ 20,600,316
						\$ -	\$ -		
Wastewater Pump Station Electrical Upgrade	\$ 100,000	\$ 100,000			\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000
Electrical Upgrade - Water Wells	\$ 650,000	\$ 650,000			\$ -	\$ -	\$ 650,000	\$ -	\$ 650,000
Electrical Upgrade - Water Booster	\$ 323,000	\$ 323,000			\$ -	\$ -	\$ 323,000	\$ -	\$ 323,000
SCADA Improvements – Phase 3	\$ 1,177,000	\$ 1,177,000		\$ 432,705	\$ 432,705	\$ -	\$ 744,295	\$ -	\$ 1,177,000
SCADA Improvements – Phase 4	\$ 6,500,000	\$ 6,500,000			\$ -	\$ -	\$ 6,500,000	\$ -	\$ 6,500,000
						\$ -	\$ -		
Laboratory Modernization	\$ 1,127,000	\$ 1,127,000	\$ 985,038	\$ 141,962	\$ 1,127,000	\$ -	\$ -	\$ -	\$ 141,962
Land Survey	\$ 1,998,000	\$ 1,998,000		\$ 1,246,376	\$ 1,246,376	\$ -	\$ 751,624	\$ -	\$ 1,998,000
General Plant Improvements / Water	\$ 2,769,463	\$ 2,769,463	\$ 120,192	\$ 1,357,165	\$ 1,477,357	\$ -	\$ 1,292,106	\$ -	\$ 2,649,271
Information Technology Integration Improvements	\$ 500,000	\$ 500,000	\$ 244,068	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ 255,932
Interest Earned		\$ -						\$ -	\$ 448,300
		\$ -							
<b>Total Construction Fund (2016 Series Revenue Bond)</b>	<b>\$ 140,019,463</b>	<b>\$ 140,019,463</b>	<b>\$ 8,318,029</b>	<b>\$ 52,648,757</b>	<b>\$ 60,722,719</b>	<b>\$ 79,296,744</b>	<b>\$ 132,149,734</b>		

**GUAM WATERWORKS AUTHORITY**  
**Schedule of Series 2010, 2013, 2014 Refunding and 2016 Bond Bank Accounts**  
**As of October 31, 2017**

**SCHEDULE N****10/31/2017****BANK OF GUAM**

BOG - Revenue Account	\$ 6,924,261
BOG - Operations and Maintenance Reserve	3,083,482
BOG - Operations, Maintenance, Renewal and Replacement Reserve Fund	17,423,213
BOG - Capital Improvement Fund	885,833
BOG - O & M Reserve	13,523,792
BOG - Debt Service Reserve	11,223,852
BOG - CAPEX Reserve	15,469,637
<b>Total BOG Bank Account Balance</b>	<b>\$ 68,534,070</b>

**Series 2010 Bond:**

BOG - Construction Account	\$ 9,083,302
USB - Debt Service Fund	2,692,950
USB - Debt Service Reserve Fund	7,566,460
<b>Total Series 2010 Bond Bank Balance</b>	<b>\$ 19,342,712</b>

**Series 2013 Bond:**

BOG - Construction Fund	\$ 73,218,819
USB - Debt Service Fund	3,115,232
USB - Debt Service Reserve Fund	12,031,688
<b>Total Series 2013 Bond Bank Balance</b>	<b>\$ 88,365,739</b>

**Series 2014 Refunding Bond:**

BOG - Construction Fund	\$ 771,720
USB - Debt Service Fund	2,394,690
USB - Debt Service Reserve Fund	7,717,841
<b>Total Series 2014 Refunding Bond Bank Balance</b>	<b>\$ 10,884,251</b>

**Series 2016 Bond:**

BOG - Construction Account	\$ 132,149,734
BOG - Capitalized Interest Fund	2,383,864
USB - Debt Service Fund	130
USB - Debt Service Reserve Fund	7,585,568
<b>Total Series 2016 Bond Bank Balance</b>	<b>\$ 142,119,297</b>



## **ISSUES FOR DECISION**

### **Resolution No. 04-FY2018**

Relative to the Authorization to Accept MasterCard Payments from Commercial Account Holders

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

In March 2016, the Guam Power Authority (GPA) and Guam Waterworks Authority (GWA) procured and awarded the merchant banking services contract to the Bank of Hawaii (BOH). BOH is able to offer both GPA and GWA the Utility Interchange rate when utility bills are paid with MasterCard which will offer commercial customers the convenience of paying their bills using their MasterCard.

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

At all three locations (Fadian-Mangilao, Julale Shopping Center, Agana & GWA Upper Tumon), Online, Pay-by-Phone, and future releases of the Integrated Voice Response Pay-by-Phone and Mobile App.

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

This rate is \$0.65/transaction for MasterCard consumer credit cards, \$0.45/transaction for MasterCard debit cards and \$1.50/transaction for MasterCard commercial and business cards plus BOH's nominal processing fee passed on to GWA.

A large commercial customer would generate fees of approximately between \$50 - \$100 using a commercial or business MasterCard. GWA estimates the total cost to the Authority will be approximately \$115,000 annually assuming all commercial accounts use MasterCard.

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

Immediately, upon the approval by the CCU.

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

Revenue Funding



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. 04-FY2017**

**RELATIVE TO THE AUTHORIZATION TO ACCEPT MASTERCARD  
PAYMENTS FROM COMMERCIAL ACCOUNT HOLDERS**

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

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

**WHEREAS**, in March 2016, the Guam Waterworks Authority (GWA) and Guam Power Authority (GPA) procured and awarded the merchant banking services contract with the Bank of Hawaii (BOH); and

**WHEREAS**, BOH is able to offer both GWA and GPA the Utility Interchange rate when utility bills are paid with a MasterCard. This rate is \$0.65/transaction for MasterCard consumer credit cards, \$0.45/transaction for MasterCard debit cards and \$1.50/transaction for MasterCard commercial and Business cards plus BOH’s nominal processing fee passed on to GWA; and

**WHEREAS**, during the last year, BOH has assessed an average of 1.25% in fees of the total debit and credit card payments processed, including MasterCard and Visa; and

**WHEREAS**, a large commercial customer would generate fees of approximately between \$50 - \$100 using a commercial or business MasterCard; and

**WHEREAS**, GWA estimates the total cost to the Authority will be approximately \$115,000 annually assuming all commercial accounts use MasterCard; and

1       **WHEREAS**, currently, GWA caps credit card payments for all customers at \$500 per  
2 month except for residential which has no cap; and

3  
4       **WHEREAS**, GWA feels with the favorable Utility Interchange rates for MasterCard it  
5 can now offer to commercial customers the convenience of paying their utility bills with  
6 MasterCard debit and credit cards at a reasonable cost; and

7  
8       **WHEREAS**, GWA is now requesting for the authority to extend the use of MasterCard  
9 debit and credit cards as payments for commercial accounts.

10  
11       **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities  
12 does hereby approve the following:

- 13  
14               1. The recitals set forth above hereby constitute the findings of the CCU.  
15               2. The CCU finds that the rates for MasterCard are fair and reasonable.  
16               3. The CCU hereby authorizes GWA to accept MasterCard debit and credit card  
17 payments from Commercial customers for payment on their utility bills.

18  
19       **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption  
20 of this Resolution.

21  
22       **DULY AND REGULARLY ADOPTED**, this 22<sup>nd</sup> day of November, 2017.

23  
24       Certified by:

Attested by:

25  
26       \_\_\_\_\_  
27       **JOSEPH T. DUENAS**  
28       Chairperson

\_\_\_\_\_  
**J. GEORGE BAMBA**  
Secretary

29       //

30       //

31       //

1 I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as  
2 evidenced by my signature above do hereby certify as follows:

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

7  
8 AYES: \_\_\_\_\_

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

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

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

12 ///

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**GUAM WATERWORKS AUTHORITY**

*"Better Water, Better Lives."*

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

Tel: (671) 300-6846

### **Issues for Decision**

#### **Resolution No. 05-FY2018**

Relative to Approving the Construction Contract for the Central Reservoirs - Tumon No. 2, Hyundai, and Chaot No. 2

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

The project is spread across three different water reservoir sites as well as at water system control devices such as Pressure Regulating Valves. The following describes the project locations and general scope of work.

##### Tumon No. 2 (Nissan) Reservoir

- The existing steel reservoir will be replaced with a new concrete reservoir (1.0 MG). The work will also include upgrading three PRVs on Pale San Vitores Road and Marine Corps Drive.
- The work is listed in the Base Bid.

##### Hyundai Reservoir

- The existing steel reservoir will be replaced with a new concrete reservoir (1.0 MG). The work will also include a new booster pump station at the reservoir site and water line upgrades in the surrounding service area.
- The reservoir work is listed in the Base Bid. The booster pump station and water line upgrades are listed in the Additive Bid.

##### Chaot Reservoir

- A new reservoir (0.5 MG) will be constructed adjacent to the newly built Chaot No. 1 reservoir (0.5 MG). This will bring the capacity of the site back to 1.0 MG. The A-series wells that feed the Chaot and Agana Heights system will be disconnected from the distribution line; making the wells feed directly to the Sinajana-Agana Heights transmission lines. The chlorination systems at the central chlorination building will be modified. The Dero Road PRV will be rehabilitated.
- The A-series well, chlorination system, and Dero Road work are listed in the Base Bid. The reservoir work is listed in the Additive Bid.
- This project is a Court Order project thus falls under the deadline requirements established.

#### **Where is the project located?**

- Tumon No. 2 is located off Marine Corps Drive next to the Nissan dealership.
- Hyundai is located at the top of Barrigada Heights off of North Sabana Drive.
- Chaot No. 2 is located at the end of Dero Road. The A-series wells are located along Route 8.

**How much will it cost?**

The bid proposal submitted by AIC International, Inc. is \$14,828,194.00. With a 10% contingency of \$1,482,819.40, the total project funding amount will be \$16,311,013.40.

**When will it be completed?**

1. Tumon No. 2 Base Bid Substantial Completion: The Contractor shall begin work upon issuance of the Notice to Proceed (NTP) and Tumon No. 2 base bid work shall be substantially complete as specified no later than 425 calendar days from NTP.
2. Hyundai Base Bid Substantial Completion: The Contractor shall begin work upon issuance of the Notice to Proceed (NTP) and Hyundai base bid work shall be substantially complete as specified no later than 425 calendar days from NTP.
3. Chaot No. 2 Base Bid Substantial Completion: The Contractor shall begin work upon issuance of the Notice to Proceed (NTP) and Chaot No. 2 base bid work shall be substantially complete as specified no later than 180 calendar days from NTP.
4. Hyundai Additive Bid Items Substantial Completion: Additive Bid Item #8 if awarded will add 60 calendar days to the Hyundai Base Bid Substantial Completion. Additive Bid Item #9 if awarded will add zero (0) calendar days to the Hyundai Base Bid Substantial Completion. Additive Bid Item #10 if awarded will add 60 calendar days to the Hyundai Base Bid Substantial Completion.
5. Chaot No. 2 Additive Bid Item Substantial Completion: Additive Bid Item #5 if awarded will add 185 calendar days to the Chaot No. 2 Base Bid Substantial Completion. Additive Bid Item #6 if awarded will add zero (0) calendar days from NTP to the Chaot No. 2 Base Bid Substantial Completion. Additive Bid Item #7 if awarded will add zero (0) calendar days from NTP to the Chaot No. 2 Base Bid Substantial Completion.

**What is the funding source?**

1. PW 09-11: Water System Reservoirs 2005 Improvements
2. PW 12-04: Agana Heights and Chaot Tank Construction
3. PW 12-06: Tank Replacement Piti and Hyundai Tanks



CONSOLIDATED COMMISSION ON UTILITIES  
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**GWA RESOLUTION NO. 05-FY2018**

**RELATIVE TO APPROVING THE CONSTRUCTION CONTRACT FOR THE  
TUMON NO. 2, HYUNDAI, AND CHAOT NO. 2 RESEVOIRS**

**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 currently has a number of critical Court Order (“CO”) Projects, including the construction (i.e. repair, rehabilitate, replace or relocate) of the Tumon No. 2, Hyundai, and Chaot No. 2, as stated in Paragraph 29 (b) (4), (5), and (6) of the Court Order; and

**WHEREAS**, in compliance with the Court Order, GWA intends to execute a construction project to address the following:

1. The construction of the new Tumon No. 2 reservoir (1.0 MG) to replace the existing Tumon No. 2 steel tank; and
2. The construction of the new Hyundai reservoir (1.0 MG) to replace the existing Hyundai steel tank; and
3. The disconnection of the A-series well from the Sinajana-Agana Heights distribution lines, Chaot and Agana Heights central chlorination system modifications, and Dero Road PRV rehabilitation to improve the Sinajana-Agana Heights water system;

**WHEREAS**, GWA has advertised an Invitation for Bid (IFB) soliciting bid proposal from experienced, responsible, and responsive bidders to construct the Tumon No. 2 reservoir, Hyundai reservoir, and Chaot-Agana Heights reservoir off-site work in the Base Bid and to

construct the Chaot No. 2 reservoir, Hyundai booster pump station, and Hyundai off site water line improvements in the Additive Bid; and

**WHEREAS**, the Base Bid work consists of the Contractor furnishing all labor, tools, equipment and materials necessary to complete the construction of the Tumon No. 2 and Hyundai reservoirs to include, but not limited to foundation, earthwork, pipework, retaining wall, storm water detention basin, off-site PRVs, concrete work, electrical work, fences and gates, protective coatings, SCADA, disinfection, testing and start-up under the provisions of the bid documents and in accordance with applicable GWA standards; and

**WHEREAS**, the Base Bid work will also consist of disconnection of the A-Series wells to the distribution lines, modification to the Chaot and Agana Heights reservoir central chlorination system, and rehabilitation of the Dero Road PRV; and

**WHEREAS**, IFB packages were picked up by 12 interested parties, from which GWA received bid proposals from 2 of the 12 parties before the bid proposal deadline (See EXHIBIT A – Abstract of Bids); and

**WHEREAS**, GWA engineering and the design team analyzed all bid proposals received on November 1<sup>st</sup>, 2017 and determined that AIC International, Inc., who submitted the lowest Base Bid as being the responsive and responsible bidder and met all the bid requirements set forth by GWA (See EXHIBIT B – Recommendation Memorandum); and

**WHEREAS**, GWA Management finds the AIC International, Inc. Base Bid proposal of Fourteen Million Eight Hundred Twenty Eight Thousand One Hundred Ninety Four Dollars (\$14,828,194.00) to be acceptable (See EXHIBIT C – Bid Proposal); and

**WHEREAS**, GWA Management will assess any additional funding availability from the latest Capital Improvements Plan to ascertain if any or all the Additive bid items as part of this IFB can be awarded later through a change order or via a subsequent CCU approval process as a means of maximizing system improvements efficiently; and

**WHEREAS**, GWA Management is seeking approval to enter into contract with AIC International, Inc. for IFB-09-ENG-2017 in the amount of Fourteen Million Eight Hundred Twenty Eight Thousand One Hundred Ninety Four Dollars (\$14,828,194.00), along with a ten percent (10%) contingency of One Million Four Hundred Eighty Two Thousand Eight Hundred Nineteen Dollars and Forty Cents (\$1,482,819.40), bringing the total requested funding amount to Sixteen Million Three Hundred Eleven Thousand Thirteen Dollars and Forty Cents (\$16,311,013.40); and

**WHEREAS**, the funding source for the construction project will be from the CIP PW 09-11: Water System Reservoirs 2005 Improvements, PW 12-04: Agana Heights and Chaot Tank Construction, and PW 12-06: Tank Replacement Piti and Hyundai Tanks; and

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the bid proposal submitted by AIC International, Inc. are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to accept the bid from AIC International, Inc. attached hereto as EXHIBIT C, and which is also incorporated into this Resolution in its entirety.
4. The CCU hereby further authorizes the management to enter into a contract with AIC International, Inc. in the amount of Fourteen Million Eight Hundred Twenty Eight Thousand One Hundred Ninety Four Dollars (\$14,828,194.00).
5. The CCU hereby approves the funding total of Fourteen Million Eight Hundred Twenty Eight Thousand One Hundred Ninety Four Dollars (\$14,828,194.00), along with a ten percent (10%) contingency of One Million Four Hundred Eighty Two Thousand Eight Hundred Nineteen Dollars and Forty Cents (\$1,482,819.40), bringing the total requested funding amount to Sixteen Million Three Hundred Eleven Thousand Thirteen Dollars and Forty Cents (\$16,311,013.40.)

6. The CCU hereby approves the use of funding from CIP PW 09-11: Water System Reservoirs 2005 Improvements, PW 12-04: Agana Heights and Chaot Tank Construction, and PW 12-06: Tank Replacement Piti and Hyundai Tanks.

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

**DULY AND REGULARLY ADOPTED**, this 22<sup>nd</sup> day of November 2017.

Certified by:

Attested by:

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

\_\_\_\_\_  
**J. GEORGE BAMBA**  
Secretary

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

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

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

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

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

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

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GUAM WATERWORKS AUTHORITY  
ABSTRACT OF BIDS**EXHIBIT A (1 OF 1)**

ORIGINAL

Project Name: **CENTRAL GUAM RESERVOIRS - TUMON NO. 2, HYUNDAI, AND CHAOT NO. 2 RESERVOIRS**

Bid Opening Date: November 1, 2017

Bid Opening Time: 3:00 pm

Project Number: W14-006-BND

IFB NO.: IFB-09-ENG-2017

Project Number: W14-000-BND		IFB NO.: IFB-03-ENG-2017		CERTIFICATIONS										Addendum			Table A, B, C Base Bid Total	Table A, B, C Base Bid and Additive Bid Total
	Bidders Name	Section A-5 Bid Bond	Qualifications Statement	Non-Collusion Affidavit	EEO Certification	Non- Segregated Facilities	Sex Offender Certification	Wage & Benefit Determination	Major Shareholders Affidavit	Special Instructions to Bidders	1	2	3					
1.	AISI																	
2.	ORION CONSTRUCTION CORP., GUAM																	
3.	JMI EDISON																	
4.	PERNIX																	
5.	PACIFIC DEVELOPMENT																	
6.	HDCC GUAM, LLC																	
7.	DN TANKS																	
8.	HSG CO., LTD																	
9.	AIC INTERNATIONAL, INC	Fidelity and Deposit Company of Maryland 15% of accumulated bid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	\$14,832,194.00	\$22,650,801.00		
10.	CORETECH INTL	Fidelity and Deposit Company of Maryland 15% of bid amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	\$19,998,000.00	\$29,360,519.00		
11.	SUMITOMO-MITSUI CONST. CORP., LTD																	
12.	MCCONELL DOWELL																	
	GWA Estimate														\$17,689,268.00	\$25,059,067.00		

Bids Opened and Read by:

*Gloria R. Bensen*  
 (Name and Signature)

Tabulated By:

*Nicole B. Quila*  
 (Name and Signature)

GWA Procurement Representative:

*Victoria Heacock*  
 (Name and Signature)

Witnesses:

*WILLIE NICOLAS*  
*WILKE GRIVA*  
*Edmond Salvador*  
*JOSE MARIANO*  
*NELSON DE GALA*  
*ALON DAMPAPO*

*Christian Mangac*  
*Genjo Dayag*  
*Arman S. ...*  
*...*  
*...*

**Exhibit B (1 of 4)****Memorandum**

November 8, 2017

**To:** Mr. Tom Cruz, P.E. Chief Engineer, GWA**Cc:** Brett Railey, Engineering Supervisor, GWA,  
Garrett Yeoh, Senior Engineer, GWA**From:** Aaron Sutton, P.E., Civil Engineer**Tel:** 671-472-6792**Subject:** GWA Central Guam Reservoirs (Tumon No. 2, Hyundai,  
and Chaot No. 2)  
Project No. W14-006-BND  
IFB No. IFB-09-ENG-2017  
**Bid Recommendation Memorandum****GHD Job No.:** 8411830**COMMENTS:**

Table 1 provides a summary of the Base Bids from lowest apparent to the highest apparent Bidder. The apparent low bidder is AIC International, Inc. (AIC) with a base bid amount of \$14,828,194 which was 16.2% below the Engineer's Estimate of \$17,689,268. Note that the bid form had a summation error and was corrected from \$14,832,194 via letter from AIC dated November 8, 2017. The discrepancy did not affect the outcome of the bid results. The Engineer's Estimate included a contingency for the labor shortage on Guam. If that contingency is removed and the assumed general contractor markup is reduced to 5%, then the Engineer's Estimate reduces to \$15,649,991 for a 5.2% difference.

**TABLE1. SUMMARY OF BASE BIDS**

<b>BIDDER</b>	<b>BASE BID AMOUNT</b>
AIC International, Inc.	<b>\$14,828,194</b>
Core Tech – Hawaiian Dredging, LLC	<b>\$19,998,000</b>

AIC's list of suppliers and subcontractors was review and there were no concerns.

**RECOMMENDATION:**

Based on GHD's review of the Bid Documents, it is our professional opinion that AIC has submitted a bid which conforms in all material respects to the Invitation for Bids and has the capability to satisfy the contract requirements. Based on this, we recommend award of the contract to AIC as the lowest responsive and responsible Bidder. See Exhibits A, B, and C for copies of low bid information and Exhibit D for a detailed spreadsheet summary of the Bidders' Schedule of Values.

**Attachments:** Exhibit A, AIC Bid Proposal  
Exhibit B, AIC Bid Bond  
Exhibit C, GWA Abstract of Bids  
Exhibit D, Detailed Spread Sheet





AIC INTERNATIONAL, INC. **Exhibit B (2 of 4)**  
Engineered Construction

November 8, 2017

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

Attention: Thomas F. Cruz/Gloria Bensen

Project: IFB-09-ENG-2017  
GWA Central Guam Reservoir (Tumon No. 2, Hyundai, and Chaot No. 2  
Reservoirs)  
GWA Project No. W14-006-BND

Hafa Adai Mr. Cruz:

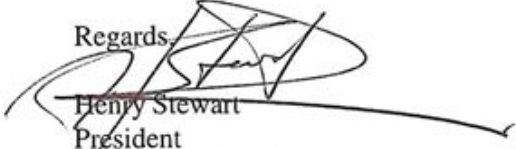
Thank you for your letter dated November 7, 2017 in which you indicated that there was an apparent error on Table B Base Bid Subtotal of our bid for referenced project, which gave a total of \$7,377,308.00 instead of \$7,373,308.00.

We have reviewed the bid schedule and wish to confirm that you are correct in your findings. The error was due to an incorrect summation of the bid prices in Table B of the Bid Schedule and we apologize for any inconvenience that our error may have caused you.

We attach a corrected complete Bid Schedule including Table B showing the correct amount of \$7,373,308.00 and Table C showing the corrected Base Bid Total of \$14,828,194.00 and Base Bid and Additive Bid Total of \$22,646,801.00, which we trust you will find to be in order.

Please feel free to contact us should you have any further questions on our proposal and we would look forward with great pleasure to working with the Guam Waterworks Authority on this vital project.

Regards,



Henry Stewart  
President  
AIC International, Inc.  
HS/as  
Encl. a/s

GWA Central Guam Reservoirs - Tumon No. 2, Hyundai, and Chaot No. 2  
Project No. W14-006-BND  
IFB No. IFB-09-ENG-2017

# Exhibit B (3 of 4)

BID SUMMARY - DETAILED SPREAD SHEET								
Item No.	Description	Core Tech/HDC	AIC	AVG	MEDIAN	STD DEV	ENG. EST	Low Bidder Delta from ENG. EST
<b>Base Bid Schedule</b>								
<b>Table A Tumon No. 2 Site</b>								
1	Mobilization	\$1,123,198	\$331,354	\$727,276	\$727,276	\$395,922	\$625,000	-\$293,646
2	Demolition	\$288,900	\$97,952	\$193,426	\$193,426	\$95,474	\$203,953	-\$106,001
3	Tumon No. 2 Reservoir							
3.1	Earthwork	\$143,191	\$152,139	\$147,665	\$147,665	\$4,474	\$289,855	-\$137,716
3.2	Tank foundation	\$585,212	\$149,581	\$367,397	\$367,397	\$217,816	\$450,000	-\$300,419
3.3	Tank piping & valving	\$113,876	\$60,904	\$87,390	\$87,390	\$26,486	\$150,000	-\$89,096
3.4	Pre-stressed concrete tank	\$3,339,829	\$3,267,643	\$3,303,736	\$3,303,736	\$36,093	\$2,999,530	\$268,113
3.5	Tank appurtenances	\$229,184	\$3,616	\$116,400	\$116,400	\$112,784	\$190,000	-\$186,384
3.6	Tank coating	\$59,816	\$62,181	\$60,999	\$60,999	\$1,183	\$33,073	\$29,108
3.7	Tank & piping disinfection	\$9,470	\$17,957	\$13,714	\$13,714	\$4,244	\$20,000	-\$2,043
3.8	Testing & startup	\$9,470	\$2,035	\$5,753	\$5,753	\$3,718	\$10,000	-\$7,965
3.9	Electrical system	\$187,248	\$99,572	\$143,410	\$143,410	\$43,838	\$83,405	\$16,167
3.10	Instrumentation and control	\$97,064	\$134,743	\$115,904	\$115,904	\$18,840	\$95,075	\$39,668
3.11	Yard piping & valving	\$288,986	\$371,620	\$330,303	\$330,303	\$41,317	\$209,630	\$161,990
3.12	Five vaults, piping, valving and overflow discharge basin	\$950,468	\$288,571	\$619,520	\$619,520	\$330,949	\$535,273	-\$246,702
3.13	Fencing and gates	\$41,159	\$48,237	\$44,698	\$44,698	\$3,539	\$53,367	-\$5,130
3.14	All other appurtenant work	\$61,154	\$245,848	\$153,501	\$153,501	\$92,347	\$69,074	\$176,774
	<b>3 Subtotal</b>	<b>\$6,116,127</b>	<b>\$4,904,647</b>	<b>\$5,510,387</b>	<b>\$5,510,387</b>	<b>\$605,740</b>	<b>\$5,188,282</b>	<b>-\$283,635</b>
4	Site grading and pavement	\$293,994	\$355,310	\$324,652	\$324,652	\$30,658	\$252,212	\$103,098
5	Control building	\$88,104	\$70,008	\$79,056	\$79,056	\$9,048	\$100,520	-\$30,512
6	PRV vault and meter vault on 12-inch on Pale San Vitores	\$640,612	\$359,696	\$500,154	\$500,154	\$140,458	\$408,521	-\$48,825
7	PRV replace and meter vault on 16-inch on Pale San Vitores	\$432,597	\$264,494	\$348,546	\$348,546	\$84,052	\$358,250	-\$93,756
8	PRV replace and meter vault on Marine Corps Drive	\$752,480	\$314,782	\$533,631	\$533,631	\$218,849	\$641,532	-\$326,750
	<b>Subtotal</b>	<b>\$9,736,012</b>	<b>\$6,698,243</b>	<b>\$8,217,128</b>	<b>\$8,217,128</b>	<b>\$1,518,885</b>	<b>\$7,778,270</b>	<b>-\$1,080,027</b>
<b>Table B Hyundai Site</b>								
1	Mobilization	\$1,335,155	\$570,933	\$953,044	\$953,044	\$382,111	\$995,000	-\$424,067
2	Demolition	\$358,197	\$294,877	\$326,537	\$326,537	\$31,660	\$441,142	-\$146,265
3	Hyundai Reservoir							
3.1	Earthwork	\$317,211	\$123,071	\$220,141	\$220,141	\$97,070	\$282,499	-\$159,428
3.2	Tank foundation	\$124,047	\$431,508	\$277,778	\$277,778	\$153,731	\$490,000	-\$58,492
3.3	Tank piping & valving	\$184,996	\$53,521	\$119,259	\$119,259	\$65,738	\$150,000	-\$96,479
3.4	Pre-stressed concrete tank	\$3,308,953	\$3,135,529	\$3,222,232	\$3,222,232	\$86,703	\$3,199,530	-\$64,001
3.5	Tank appurtenances	\$229,384	\$206,711	\$218,048	\$218,048	\$11,337	\$190,000	\$16,711
3.6	Tank coating	\$117,296	\$61,605	\$89,451	\$89,451	\$27,846	\$34,872	\$26,733
3.7	Tank & piping disinfection	\$7,103	\$17,968	\$12,536	\$12,536	\$5,433	\$20,000	-\$2,032
3.8	Testing & startup	\$7,103	\$10,182	\$8,643	\$8,643	\$1,540	\$10,000	\$182
3.9	Electrical system	\$221,175	\$273,146	\$247,161	\$247,161	\$25,986	\$76,531	\$196,615
3.10	Instrumentation and control	\$87,978	\$100,681	\$94,330	\$94,330	\$6,352	\$98,992	\$1,689
3.11	Yard piping & valving	\$599,756	\$309,728	\$454,742	\$454,742	\$145,014	\$278,391	\$31,337
3.12	Three vaults, piping, valving and overflow discharge basin	\$1,022,911	\$247,161	\$635,036	\$635,036	\$387,875	\$334,894	\$87,733
3.13	Fencing and gates	\$68,774	\$54,659	\$61,717	\$61,717	\$7,058	\$67,279	-\$12,620
3.14	All other appurtenant work	\$58,403	\$50,918	\$54,661	\$54,661	\$3,743	\$64,290	-\$13,372
	<b>3 Subtotal</b>	<b>\$6,355,072</b>	<b>\$5,076,388</b>	<b>\$5,715,730</b>	<b>\$5,715,730</b>	<b>\$639,342</b>	<b>\$5,297,278</b>	<b>-\$220,890</b>
4	Site grading and pavement	\$171,308	\$386,009	\$278,659	\$278,659	\$107,351	\$408,297	-\$228,288
5	380,000 temporary steel tank	\$743,093	\$501,896	\$622,495	\$622,495	\$120,599	\$1,697,321	-\$1,195,425
6	Control Building	\$34,652	\$151,149	\$92,901	\$92,901	\$58,249	\$100,520	\$50,629
7	Barrigada Pump Station improvements	\$371,787	\$392,056	\$381,922	\$381,922	\$10,135	\$248,940	\$143,116
	<b>Subtotal</b>	<b>\$9,369,264</b>	<b>\$7,373,308</b>	<b>\$8,371,286</b>	<b>\$8,371,286</b>	<b>\$997,978</b>	<b>\$9,188,498</b>	<b>-\$1,815,190</b>
<b>Table B Chaot No. 2 Site</b>								
1	Mobilization	\$468,471	\$222,631	\$345,551	\$345,551	\$122,920	\$383,000	-\$160,369
2	Well improvements	\$49,036	\$106,423	\$77,730	\$77,730	\$28,694	\$131,500	-\$25,077
3	PRV vault on Dero Road	\$187,189	\$182,283	\$184,736	\$184,736	\$2,453	\$125,000	\$57,283
4	Chlorination improvements to Chaot and Agana Heights	\$188,028	\$245,306	\$216,667	\$216,667	\$28,639	\$83,000	\$162,306
	<b>Subtotal</b>	<b>\$892,724</b>	<b>\$756,643</b>	<b>\$824,684</b>	<b>\$824,684</b>	<b>\$68,041</b>	<b>\$722,500</b>	<b>\$34,143</b>
	<b>Total Base Bid Schedule Subtotal</b>	<b>\$19,998,000</b>	<b>\$14,828,194</b>	<b>\$46,052,311</b>	<b>\$46,052,311</b>	<b>\$2,584,903</b>	<b>\$17,689,268</b>	<b>-\$2,861,074</b>
<b>Table B Additive Bid Items</b>								
8	Hyundai Booster Pump Station							
8.1	Building	\$575,388	\$326,235	\$450,812	\$450,812	\$124,577	\$408,962	-\$82,727
8.2	Triplex pump system	\$72,209	\$71,564	\$71,887	\$71,887	\$323	\$65,900	\$5,664
8.3	Fire pump system	\$153,288	\$109,398	\$131,343	\$131,343	\$21,945	\$62,840	\$46,558
8.4	Piping and valving	\$244,936	\$356,696	\$300,816	\$300,816	\$55,880	\$55,500	\$301,196
8.5	Flow meters	\$11,682	\$27,701	\$19,692	\$19,692	\$8,010	\$11,730	\$15,971
8.6	Hoist system	\$132,860	\$6,971	\$69,916	\$69,916	\$62,945	\$11,220	-\$4,249
8.7	Generators	\$181,092	\$215,122	\$198,107	\$198,107	\$17,015	\$272,401	-\$57,279
8.8	Diesel fuel tank	\$96,354	\$70,520	\$83,437	\$83,437	\$12,917	\$54,013	\$16,507
8.9	Electrical system	\$51,443	\$24,282	\$37,863	\$37,863	\$13,581	\$224,546	-\$200,282
8.10	Fire sprinkler system	\$61,208	\$44,295	\$52,752	\$52,752	\$8,457	\$38,820	\$5,475
8.11	SCADA system	\$51,443	\$67,052	\$59,248	\$59,248	\$7,805	\$65,000	\$2,052
8.12	All other appurtenant work	\$34,718	\$44,948	\$39,833	\$39,833	\$5,115	\$288,404	-\$243,456
8.13	Deletion of control building	-\$59,867	-\$151,149	-\$59,867	-\$105,508	\$45,641	-\$100,520	-\$50,629
	<b>8 Subtotal</b>	<b>\$1,606,754</b>	<b>\$1,213,635</b>	<b>\$1,410,195</b>	<b>\$1,410,195</b>	<b>\$196,560</b>	<b>\$1,458,834</b>	<b>-\$245,199</b>
9	8-inch and 12-inch waterlines on Sabana loop	\$1,226,743	\$1,011,427	\$1,119,085	\$1,119,085	\$107,658	\$822,289	\$189,138
10	8-inch and 12-inch waterlines on Bello Road	\$2,101,459	\$1,864,644	\$1,983,052	\$1,983,052	\$118,408	\$1,805,760	\$58,884
	<b>Total Table B Additive Bid Items Subtotal</b>	<b>\$4,934,956</b>	<b>\$4,089,706</b>	<b>\$4,551,345</b>	<b>\$4,551,345</b>	<b>\$0</b>	<b>\$4,086,883</b>	<b>\$2,823</b>
	<b>Total Table B Base + Additive Bid Items Subtotal</b>	<b>\$14,304,220</b>	<b>\$11,463,014</b>	<b>\$423,281</b>	<b>\$423,281</b>	<b>\$0</b>	<b>\$13,275,381</b>	<b>-\$1,812,367</b>
<b>Table C Additive Bid Items</b>								
5	Chaot No. 2 Reservoir							
5.1	Earthwork	\$116,744	\$111,060	\$113,902	\$113,902	\$2,842	\$61,636	\$49,424
5.2	Tank foundation	\$259,244	\$280,566	\$269,905	\$269,905	\$10,661	\$330,000	-\$49,434
5.3	Tank piping & valving	\$133,027	\$45,618	\$89,323	\$89,323	\$43,705	\$141,309	-\$95,691
5.4	Pre-stressed concrete tank	\$2,517,499	\$2,219,954	\$2,368,727	\$2,368,727	\$148,773	\$1,855,612	\$364,342
5.5	Tank appurtenances	\$322,000	\$323,892	\$322,946	\$322,946	\$946	\$150,000	\$173,892
5.6	Tank coating	\$38,535	\$46,936	\$42,736	\$42,736	\$4,201	\$31,000	\$15,936
5.7	Tank & piping disinfection	\$6,401	\$4,148	\$5,275	\$5,275	\$1,127	\$20,000	-\$15,852
5.8	Testing & startup	\$6,401	\$1,125	\$3,763	\$3,763	\$2,638	\$10,000	-\$8,875
5.9	Electrical system	\$89,775	\$53,299	\$71,537	\$71,537	\$18,238	\$36,680	\$16,619
5.10	Instrumentation and control	\$7,091	\$110,265	\$58,678	\$58,678	\$51,587	\$61,334	\$48,931
5.11	Yard piping & valving	\$279,909	\$116,250	\$198,080	\$198,080	\$81,830	\$45,000	\$71,250
5.12	Three vaults, piping, valving and overflow discharge basin	\$315,690	\$114,181	\$214,936	\$214,936	\$100,755	\$177,660	-\$63,479

CCU Regular Meeting November 22, 2017 - NEW BUSINESS

GWA Central Guam Reservoirs - Tumon No. 2, Hyundai, and Chaot No. 2  
Project No. W14-006-BND  
IFB No. IFB-09-ENG-2017

## Exhibit B (4 of 4)

5.13	Fencing and gates	\$45,507	\$15,061	\$30,284	\$30,284	\$15,223	\$30,040	-\$14,979
5.14	All other appurtenant work	\$49,285	\$6,170	\$49,285	\$27,728	\$21,558	\$77,707	-\$71,537
	<b>5 Subtotal</b>	<b>\$4,187,108</b>	<b>\$3,448,525</b>	<b>\$4,187,108</b>	<b>\$3,817,817</b>	<b>\$369,292</b>	<b>\$3,027,978</b>	<b>\$420,547</b>
6	Site grading and pavement	\$178,085	\$160,664	\$169,375	\$169,375	\$8,711	\$219,938	-\$59,274
7	Grading of gravel access road	\$62,370	\$119,712	\$91,041	\$91,041	\$28,671	\$35,000	\$84,712
	<b>Total Table C Additive Bid Items Subtotal</b>	<b>\$4,427,563</b>	<b>\$3,728,901</b>	<b>\$39,214</b>	<b>\$4,427,563</b>	<b>\$0</b>	<b>\$3,282,916</b>	<b>\$445,985</b>
	<b>Total Table C Base + Additive Bid Items Subtotal</b>	<b>\$5,320,287</b>	<b>\$4,485,544</b>	<b>\$1,390,161</b>	<b>\$5,320,287</b>	<b>\$0</b>	<b>\$4,005,416</b>	<b>\$480,128</b>
	<b>Total Additive Bid Items Subtotal</b>	<b>\$9,362,519</b>	<b>\$7,818,607</b>	<b>\$2,469,413</b>	<b>\$9,362,519</b>	<b>\$0</b>	<b>\$7,369,799</b>	<b>\$448,808</b>
	<b>Total Base Bid + Additive Bid Items</b>	<b>\$29,360,519</b>	<b>\$22,646,801</b>	<b>\$26,003,660</b>	<b>\$26,003,660</b>	<b>\$ 3,356,859.00</b>	<b>\$25,059,067</b>	<b>\$4,301,452</b>

## EXHIBIT C (1 OF 19)

### BID FORM

#### ARTICLE 1 - BID RECIPIENT

- 1.01 This Bid is submitted to:

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

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

#### ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

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

#### ARTICLE 3 - BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:

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

Addendum No.	Addendum Date
Addendum No. 1	September 26, 2017
Addendum No. 2	October 5, 2017
Addendum No. 3	October 17, 2017
Addendum No. 4	October 24, 2017

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

## EXHIBIT C (2 OF 19)

- C. Bidder is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the Bid that may affect cost, progress, and the furnishing of Goods and Special Services.
- D. Bidder has carefully studied, considered, and correlated the information known to Bidder; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Bidder's visits, if any, to the Point of Destination and the site where the Goods will be installed or Special Services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Bidding Documents.
- E. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution (if any) thereof by Engineer is acceptable to Bidder.
- F. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the Goods and Special Services for which this Bid is submitted.

### ARTICLE 4 - BIDDER'S CERTIFICATIONS

#### 4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Buyer, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;

## EXHIBIT C (3 OF 19)

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process.

### ARTICLE 5 - BASIS OF BID

- 5.01 Bidder will furnish the Goods and Special Services in accordance with the Contract Documents for the following price(s):

**EXHIBIT C (4 OF 19)****BID SCHEDULE**

Interested Bidders must complete Table A, Table B, and Table C. All blanks in the tables must be filled out.

Definitions:

LS = lump sum

**TABLE A  
TUMON NO. 2 SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 8)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
1.	Mobilization, as specified in the Contract Documents.	1	LS	\$ <u>331,354.00</u>
2.	Demolition of existing facilities, including the steel tank and foundation, paving, chain link fences and gates, piping, concrete vaults, headwall, and appurtenances, as shown and specified in the Contract Documents.	1	LS	\$ <u>97,952.00</u>

**EXHIBIT C (5 OF 19)**

**TABLE A  
TUMON NO. 2 SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 8)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
3.	Construction of Tumon No. 2 Reservoir, including a 1.0 million gallon (MG) nominal capacity pre-stressed concrete tank, earthwork, yard piping, fences and gates, coatings, control building, electrical, instrumentation and controls, disinfection, testing, startup, and all appurtenant work, complete and operable, as shown and specified in the Contract Documents.			
	<u>Item 3 Breakdown</u>			
	3.1 Earthwork			\$ <u>152,139.00</u>
	3.2 Tank Foundation			\$ <u>149,581.00</u>
	3.3 Tank Piping & Valving			\$ <u>60,904.00</u>
	3.4 Pre-stressed Concrete Tank			\$ <u>3,267,643.00</u>
	3.5 Tank Appurtenances			\$ <u>3,616.00</u>
	3.6 Tank Coating			\$ <u>62,181.00</u>
	3.7 Tank & Piping Disinfection			\$ <u>17,957.00</u>
3.	<u>Item 3 Breakdown (Cont.)</u>			
	3.8 Testing & Startup			\$ <u>2,035.00</u>
	3.9 Electrical System			\$ <u>99,572.00</u>
	3.10 Instrumentation and Control			\$ <u>134,743.00</u>
	3.11 Yard Piping & Valving			\$ <u>371,620.00</u>
	3.12 Five Vaults, Piping, Valving and Overflow Discharge Basin			\$ <u>288,571.00</u>
	3.13 Fencing and Gates			\$ <u>48,237.00</u>
	3.14 All other appurtenant work			\$ <u>245,848.00</u>
	Subtotal	1	LS	\$ <u>4,904,647.00</u>
4.	Site Grading and pavement including curbs, concrete gutters, headwall, sidewalk, stormwater swales, and riprap.	1	LS	\$ <u>355,310.00</u>



**EXHIBIT C (6 OF 19)**

**TABLE A  
TUMON NO. 2 SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 8)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
5.	Construction of Control Building, including electrical and controls, earthwork, and all appurtenant work, complete and operable as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>70,008.00</u>
6.	Construction of PRV Vault and Meter Vault on the 12-inch waterline on Pale San Vitores Road. Including construction of concrete vaults, manhole covers, piping, valves, meters, pressure reducing valves, protective coating, connection to existing pipes, connection of 12-inch and 16-inch waterlines, earthwork, testing and disinfection, electrical and SCADA, and all appurtenant work, complete and operable, as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>359,696.00</u>
7.	Construction of PRV replacement and Meter Vault on the 16-inch waterline on Pale San Vitores Road. Including construction of concrete vault, manhole cover, piping, valves, meters, pressure reducing valve, protective coating, connection to existing pipes, earthwork, testing and disinfection, electrical and SCADA, and all appurtenant work, complete and operable, as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>264,494.00</u>

**EXHIBIT C (7 OF 19)**

**TABLE A  
TUMON NO. 2 SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 8)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
8.	Construction of PRV replacements and Meter Vault at St. John's on Marine Corps Drive. Including construction of concrete vault, manhole covers, piping, valves, meters, pressure reducing valves, protective coating, connection to existing pipes, 14-inch connection of 24-inch and 14-inch waterlines, earthwork, electrical, testing and disinfection, and all appurtenant work, complete and operable, as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>314,782.00</u>
<b>Table A Base Bid Subtotal</b>				\$ <u>6,698,243.00</u>

**EXHIBIT C (8 OF 19)**

**TABLE B  
HYUNDAI SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 7, ADDITIVE BID ITEMS NO. 8 – 10)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
1.	Mobilization, as specified in the Contract Documents.	1	LS	\$ <u>570,933.00</u>
2.	Demolition of existing facilities, including the steel tank, foundation, paving, electrical building, chain link fences and gates, power pole, piping, concrete vaults, headwall, and appurtenances, as shown and specified in the Contract Documents.	1	LS	\$ <u>294,077.00</u>
3.	Construction of Hyundai Reservoir, including a 1.0 million gallon (MG) nominal capacity pre-stressed concrete tank, earthwork, yard piping, fences and gates, protective coating, electrical, instrumentation and controls, disinfection, testing, startup, and all appurtenant work, complete and operable, as shown and specified in the Contract Documents.			
	<u>Item 3 Breakdown</u>			
	3.1 Earthwork			\$ <u>123,071.00</u>
	3.2 Tank Foundation			\$ <u>431,508.00</u>
	3.3 Tank Piping & Valving			\$ <u>53,521.00</u>
	3.4 Pre-stressed Concrete Tank			\$ <u>3,135,529.00</u>
	3.5 Tank Appurtenances			\$ <u>206,711.00</u>
	3.6 Tank Coating			\$ <u>61,605.00</u>

**EXHIBIT C (9 OF 19)**

**TABLE B  
HYUNDAI SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 7, ADDITIVE BID ITEMS NO. 8 – 10)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
3.	<u>Item 3 Breakdown (Cont.)</u>			
	3.7 Tank & Piping Disinfection			\$ <u>17,968.00</u>
	3.8 Testing & Startup			\$ <u>10,182.00</u>
	3.9 Electrical System			\$ <u>273,146.00</u>
	3.10 Instrumentation and Control			\$ <u>100,681.00</u>
	3.11 Yard Piping & Valving			\$ <u>309,728.00</u>
	3.12 Three Vaults, Piping, Valving, Overflow Discharge Basin and Piping			\$ <u>247,161.00</u>
	3.13 Fencing and Gates			\$ <u>54,659.00</u>
	3.14 All other appurtenant work			\$ <u>50,918.00</u>
	Subtotal	1	LS	\$ <u>5,076,388.00</u>
4.	Site Grading and pavement including curbs, concrete gutters, sidewalks, stormwater swales, headwalls, riprap, and stormwater infiltration basin and outlet structure and piping.	1	LS	\$ <u>386,009.00</u>
5.	Construction of 380,000 gallon temporary bolted steel tank, including earthwork, piping, electrical, instrumentation and controls, disinfection, testing, startup, and all appurtenant work, complete and operable, as shown and specified in the Contract Documents.	1	LS	\$ <u>501,896.00</u>
6.	Construction of Control Building, same as Tumon No. 2 Control Building if additive bid for pump station is not awarded. Locate at pump northeast corner of pump building. Complete and operable, as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>151,149.00</u>

**EXHIBIT C (10 OF 19)**

**TABLE B  
HYUNDAI SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 7, ADDITIVE BID ITEMS NO. 8 – 10)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
7.	Improvements to the Barrigada Pump Station including piping, meters, pumps, valves, earthwork, testing and startup, door replacement, retaining wall, and all appurtenant work, complete and operable as shown and specified in accordance with the Contract Documents. Include the painting of Barrigada Reservoir No. 2 GWA logo.	1	LS	\$ <u>392,056.00</u>

**EXHIBIT C (11 OF 19)**

**TABLE B  
HYUNDAI SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 7, ADDITIVE BID ITEMS NO. 8 – 10)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
8.	Additive Bid Item: Construction of Hyundai Booster Pump Station, including triplex booster pumps, fire pump, electrical and controls, generators, fuel tank, hoist, piping, valves, meters, earthwork, testing and startup, and all appurtenant work, complete and operable as shown and specified in accordance with the Contract Documents.			
	<u>Item No. 8 Breakdown</u>			
8.1	Proposed Booster Pump Building			\$ <u>326,235.00</u>
8.2	Triplex Pump System			\$ <u>71,564.00</u>
8.3	Fire Pump System			\$ <u>109,398.00</u>
8.4	Piping and Valving			\$ <u>356,696.00</u>
8.5	Flow Meters			\$ <u>27,701.00</u>
8.6	Hoist System			\$ <u>6,971.00</u>
8.7	Generators			\$ <u>215,122.00</u>
8.8	Diesel Fuel Tank			\$ <u>70,520.00</u>
8.9	Electrical System			\$ <u>24,282.00</u>
8.10	Fire Sprinkler System			\$ <u>44,235.00</u>
8.11	SCADA System			\$ <u>67,052.00</u>
8.12	All other appurtenant work			\$ <u>44,948.00</u>
8.13	Deletion of Control Building			(\$ <u>151,149.00</u> )
		1	LS	\$ <u>1,213,635.00</u>
	Subtotal			

**EXHIBIT C (12 OF 19)**

**TABLE B  
HYUNDAI SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 7, ADDITIVE BID ITEMS NO. 8 – 10)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
9.	Additive Bid Item: Installation of 8-inch and 12-inch PVC AWWA C900, transmission and distribution waterlines on North and South Sabana Drives and sides streets as shown on sheets C-201 through C-209. Installation of inline valves shown on sheet C-228. The work will include: valves, valve boxes and valve covers, fire wet barrel hydrants, blow-off assemblies, combination air release valves, fittings, installation of service line materials and fittings, disinfection and testing, and pavement restoration complete and operable as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>1,011,427.00</u>
10.	Additive Bid Item: Installation of 8-inch and 12-inch PVC AWWA C900, waterlines on Bello Road, and farther west as shown on sheets C-210 through C-227. The work will include: construction of PRV concrete vault, manhole covers, piping, electrical and SCADA, pressure reducing valves, protective coating, valves, valve boxes and valve covers, fire wet barrel hydrants, blow-off assemblies, combination air release valves, fittings, installation of service line materials and fittings, disinfection and testing, and pavement restoration complete and operable as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>1,864,644.00</u>

## EXHIBIT C (13 OF 19)

Table B Base Bid Subtotal	\$ <u>7,377,308.00</u>
Table B Base Bid and Additive Bid Subtotal	\$ <u>11,467,014.00</u>



**EXHIBIT C (14 OF 19)**

**TABLE C  
CHAOT NO. 2 SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 4, ADDITIVE BID ITEMS NO. 5 – 7)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
1.	Mobilization, as specified in the Contract Documents.	1	LS	\$ <u>222,631.00</u>
2.	Well improvements including analyzer relocations, piping disconnections, door hardware replacement, fencing replacement, and all appurtenant work, complete and operable, as shown and specified in the Contract Documents.	1	LS	\$ <u>106,423.00</u>
3.	Construction of PRV Vault in front of Well A-12. Including construction of concrete vault, manhole covers, piping, valves, pressure reducing valves, protective coating, connection to existing pipes, earthwork, testing and disinfection, and all appurtenant work, complete and operable, as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>182,283.00</u>
4.	Chlorination and analyzer improvements to Chaot and Agana Heights Reservoir Sites, including partition wall, chlorine system reduction, electrical, instrumentation and controls, and all appurtenant work, complete and operable as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>245,306.00</u>

**EXHIBIT C (15 OF 19)**

**TABLE C**  
**CHAOT NO. 2 SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 4, ADDITIVE BID ITEMS NO. 5 – 7)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
5.	Additive Bid Item: Construction of Chaot Reservoir No. 2, including a 0.5 million gallon (MG) nominal capacity pre-stressed concrete tank, earthwork, yard piping, fences, protective coating, electrical, instrumentation and controls, disinfection, testing, startup, and all appurtenant work, complete and operable, as shown and specified in the Contract Documents.			
	<u>Item 5 Breakdown</u>			
	5.1 Earthwork			\$ 111,060.00
	5.2 Tank Foundation			\$ 280,566.00
	5.3 Tank Piping & Valving			\$ 45,618.00
	5.4 Pre-stressed Concrete Tank			\$ 2,219,954.00
	5.5 Tank Appurtenances			\$ 323,892.00
	5.6 Tank Coating			\$ 46,936.00
	5.7 Tank & Piping Disinfection			\$ 4,148.00
	5.8 Testing & Startup			\$ 1,125.00
	5.9 Electrical System			\$ 53,299.00
	5.10 Instrumentation and Control			\$ 110,265.00
				\$ 116,250.00
	5.11 Yard Piping & Valving			\$ 114,181.00
	5.12 Drain Vault, Inlet Vault, Piping and Overflow Manhole			\$ 15,061.00
	5.13 Fencing			\$ 6,170.00
	5.14 All other appurtenant work			
	Subtotal	1	LS	\$ 3,448,525.00
6.	Additive Bid Item: Site Grading and pavement including concrete gutters, headwalls, retaining wall, stormwater swales, riprap, outlet control structure and stormwater detention basin.	1	LS	\$ 160,664.00

**EXHIBIT C (16 OF 19)**

**TABLE C  
CHAOT NO. 2 SITE BID SCHEDULE**

**(BASE BID ITEMS NO. 1 – 4, ADDITIVE BID ITEMS NO. 5 – 7)**

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Extended Amount</b>
7.	Additive Bid Item: Grading of gravel access road from end of pavement on Dero Road to the Chaot Reservoirs east property line, including gabion repairs of culvert outlet and all appurtenant work, complete and operable as shown and specified in accordance with the Contract Documents.	1	LS	\$ <u>119,712.00</u>
<b>Table C Base Bid Subtotal</b>				\$ <u>756,643.00</u>
<b>Table C Base Bid and Additive Bid Subtotal</b>				\$ <u>4,485,544.00</u>

**Table A, B, and C Base Bid Total** align="right">\$ 14,832,194.00

**Table A, B, and C Base Bid and Additive Bid Total** align="right">\$ 22,650,801.00

**TOTAL BASE BID PRICE FOR THE BID SCHEDULE (Table A, B and C)**

For the lump sum of  
\$ 14,832,194.00  
(Price in Figures)

**FOURTEEN MILLION EIGHT HUNDRED THIRTY TWO THOUSAND  
ONE HUNDRED NINETY FOUR DOLLARS**

(Price in Words)

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

## EXHIBIT C (17 OF 19)

### ARTICLE 6 - TIME OF COMPLETION

- 6.01 Bidder agrees that the furnishing of Goods and Special Services will conform to the schedule set forth in Article 5 of the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

### ARTICLE 7 - ATTACHMENTS TO THIS BID

- 7.01 The following documents are attached to and made a condition of this Bid:
- A. Required Bid security in the form of Bid Bond.
  - B. List of Proposed Major Suppliers;
  - C. Required Bidder Qualification Statement with Supporting Data.

### ARTICLE 8 - DEFINED TERMS

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

### ARTICLE 9 - BID SUBMITTAL

- 9.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): N/A

By: \_\_\_\_\_  
(Individual's signature)

Doing business as: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone: \_\_\_\_\_ Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

## EXHIBIT C (18 OF 19)

### A Partnership

Partnership Name: N/A (SEAL)

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

Name (typed or printed): \_\_\_\_\_

Business address: \_\_\_\_\_

Phone: \_\_\_\_\_ Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

### A Corporation

Corporation Name: AIC International, Inc.

State of Incorporation: Guam

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

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

Name (typed or printed): Henry Stewart

Title: President

Attest \_\_\_\_\_  
(Signature of Corporate Secretary)

Business address: Route 2A, Agat Guam 96928

P.O. Box DR, Hagatña, Guam 96932

Phone: 671-565-9142 Facsimile: 671-565-9145

E-mail address: henry@aicconstruction.com

### A Limited Liability Company (LLC)

LLC Name: N/A

State in which organized: \_\_\_\_\_

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

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone: \_\_\_\_\_ Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

## EXHIBIT C (19 OF 19)

### A Joint Venture

First Joint Venturer Name: \_\_\_\_\_ N/A \_\_\_\_\_ (SEAL)

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

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone: \_\_\_\_\_ Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Second Joint Venturer Name: \_\_\_\_\_ (SEAL)

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

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone: \_\_\_\_\_ Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Phone and Facsimile Number, and Address for receipt of official communications to Joint Venture: \_\_\_\_\_

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



**GUAM WATERWORKS AUTHORITY**

*"Better Water, Better Lives."*

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

Tel: (671) 300-6846

### **Issues for Decision**

#### **Resolution No. 06-FY2018**

Relative to Approval of Change Order No. 3 for the Construction Management Services for the Rehabilitation of GWA Wells 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 Change Order No. 3 is to extend the Construction Management (CM) services 97 days to match the contract time extension approved for the construction contract. Additional funding is needed for Change Order No. 3 to manage the construction, on a time and materials basis. These wells have been inoperable for a significant amount of time. Once they are put on line and operational, it will add almost 1,000 MGDs back to the island's water system.

#### **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 property boundaries of the well sites.

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

The original contract value for this CM Services was Seven Hundred Forty Nine Thousand One Hundred Eighty Four Dollars (\$749,184.00), plus a ten percent (10%) contingency of Seventy Four Thousand Nine Hundred Eighteen Dollars and Forty Cents (\$74,918.40). The value of the Change Order No. 3 proposal is One Hundred Nineteen Thousand Three Hundred Eighty One Dollars (\$119,381.00). Approval of Change Order No. 3 will bring the total authorized funding amount to a maximum of Nine Hundred Forty Three Thousand Three Hundred Sixty One Dollars and Thirty Two Cents (\$943,361.32).

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

The project is scheduled to be substantially completed by end of November 2017.

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

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



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. 06-FY2018**

**RELATIVE TO APPROVAL OF CHANGE ORDER WORK FOR CONSTRUCTION  
MANAGEMENT SERVICES FOR THE REHABILITATION OF GWA WELLS  
(D-03, D-17, D-18, D-22, M-09) PROJECT W11-008-BDN**

**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 of the wells has inhibited the full optimization of the island’s system water pressure and contributed to supply deficiencies, and the rehabilitation, repair, or replacement of groundwater wells D-03, D-17, D-18, D-22, and M-09, once they are put on line and operational, it will add almost 1,000 MGDs back to the island’s water system; and

**WHEREAS**, on December 30, 2015, GWA entered into a contract with EA Engineering, Science and Technology, Inc., PBC (EA) to perform the Construction Management (CM) Services for the Rehabilitation of GWA Wells D-03, D-17, D-18, D-22, and M-09 project; and



**WHEREAS**, on August 22, 2016, GWA awarded the construction contract for the Island-wide Well Site Rehabilitation (D-03, D-17, D-18, D-22, and M-09) to Pacific Rim Corporation with a completion date of August 22, 2017; and

**WHEREAS**, on August 22, 2017, GWA extended the construction contract for the Island-wide Well Site Rehabilitation (D-03, D-17, D-18, D-22, and M-09) to November 25, 2017, to allow for extra time for the completion of the associated wells due to capacity issues with some initial wells that required re-drilling and changes that were required for the electrical systems; and

**WHEREAS**, due to the extension of the construction time, GWA requested a proposal from EA to extend their CM contract to the new construction completion date of November 25, 2017; and

**WHEREAS**, GWA has discussed the proposal with the USEPA (the funding agency for this project) and received the USEPA's support to use the SRF grant to fund CM contract extension for the Island-wide Well Site Rehabilitation project; and

**WHEREAS**, GWA received a final proposal from EA on November 3, 2017 (SEE EXHIBIT A), in the amount of One Hundred Nineteen Thousand Three Hundred Eighty One Dollars (\$119,381.00), and reviewed EA's proposal with GWA's PMO, and determined the proposal as fair and reasonable; and

**WHEREAS**, CCU approved the original contract value for this project in the amount of Seven Hundred Forty Nine Thousand One Hundred Eighty Four Dollars (\$749,184.00), plus a ten percent (10%) contingency of Seventy Four Thousand Nine Hundred Eighteen Dollars and Forty Cents (\$74,918.40), which brought the total authorized funding amount to a maximum of Eight Hundred Twenty Four Thousand One Hundred Two Dollars and Forty Cents (\$824,102.40); and

**WHEREAS**, with two (2) previously approved changed orders in the amount of Seventy Four Thousand Seven Hundred Ninety Six Dollars and Thirty Two Cents (\$74,796.32), the current total contract value is Eight Hundred Twenty Three Thousand Nine Hundred Eighty Dollars and Thirty Two Cents (\$823,980.32); and

**WHEREAS**, GWA Management seeks CCU approval of the proposed Change Order No. 3 in the amount of One Hundred Nineteen Thousand Three Hundred Eighty One Dollars (\$119,381.00) which will bring the authorized funding for the Contract to Nine Hundred Forty Three Thousand Three Hundred Sixty One Dollars and Thirty Two Cents (\$943,361.32); and

**WHEREAS**, funding for the change order work will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds applicable to the project type; and

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the fee proposal submitted by EA Engineering, Science and Technology, Inc., PBC (EA) are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to approve the Change Order No. 3 in the amount of One Hundred Nineteen Thousand Three Hundred Eighty One Dollars (\$119,381.00).
4. The CCU hereby further approves the total funding amount for this project to a maximum of Nine Hundred Forty Three Thousand Three Hundred Sixty One Dollars and Thirty Two Cents (\$943,361.32).

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

3  
4       **DULY AND REGULARLY ADOPTED**, this 22<sup>nd</sup> day of November 2017.

5  
6       Certified by:

Attested by:

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

\_\_\_\_\_  
**J. GEORGE BAMBA**  
Secretary

11  
12       I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as  
13 evidenced by my signature above do hereby certify as follows:

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

18       AYES: \_\_\_\_\_

19       NAYS: \_\_\_\_\_

20       ABSTENTIONS: \_\_\_\_\_

21       ABSENT: \_\_\_\_\_

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## Exhibit A (1 of 6)

## GUAM WATERWORKS AUTHORITY

Gloria B. Nelson Public Service Building  
688 Route 15, Mangilao, GU 96913  
Engineering Division  
Phone: (671) 300-6058 Fax: (671) 647-2621

## CHANGE ORDER NO. 3

Project No. & Title: Construction Management Services for the Rehabilitation of GWA Well Nos. D03, D17, D18, D22, and M09  
GWA Project No. W11-008-BND  
Contractor's Name: EA Engineering, Science, and Technology, Inc., PBC Original Contract Date: August 22, 2016

TO: EA Engineering, Science, and Technology, Inc., PBC

You are directed to make changes noted below in the subject contract. The changes are accepted by:

TRESSIE WOOD OWNER'S REPRESENTATIVE  
Contractor Representative (Print Name & Title)

Signature: [Signature] Date: 14 NOV 2018

PREPARED BY:

George Watson [Signature] 11/14/17  
Project Engineer Date

Kurt Bilz, P.E. [Signature] 11/14/2017  
Engineering Supervisor Date

RECOMMEND APPROVAL:

G.L. NO. W203.105321.520000  
Contract No.: 760 OM  
Vendor No.: 26730  
Amount: \$119,381.00

Thomas Cruz, P.E. \_\_\_\_\_  
Chief Engineer Date

## Nature of Changes:

This change order serves to extend Construction Management (CM) services for the extended construction period of 97 days, from 22 August to 25 November, 2017, on a time and materials basis.  
Project closeout and post-construction services remain unchanged.  
Total cost of extended CM services is \$181,656, with a credit for the unused CM services budget as of 22 August, 2017 at \$62,275.  
Work to be performed on a Time and Materials basis adds to total cost of \$119,381 as indicated in Enclosure 1.

## Enclosures:

- 1) CM Request for Potential Change Order (with Cost Proposal)

## The changes result in the following adjustment of contract price and time:

Contract price prior to this change order	\$823,980.32
Net (Increase)(decrease) from this Change Order (subject to approved terms & conditions)	\$119,381.00
Current contract price including this Change Order	\$943,361.32
Contract time prior to this Change Order 365 calendar days	
Net (Increase)(decrease) resulting this Change Order 97 calendar days	
Current contract time including this Change Order 462 calendar days	

## CERTIFIED FUNDS AVAILABLE:

Greg Cruz  
Chief Certifying Officer

Date: \_\_\_\_\_

## APPROVED:

Miguel C. Bordallo, PE  
General Manager

Date: \_\_\_\_\_

(Name & Title) Finance/Accounting
Date: _____

## Exhibit A (2 of 6)



EA Engineering, Science, and Technology, Inc., PBC

1001 Army Drive, Suite 103  
 Barrigada, Guam 96913  
 Telephone: 671-646-5231  
 Fax: 671-646-5230  
 www.eaest.com

Date: 3 November 2017

To: Mr. Miguel C. Bordallo, PE  
 Guam Waterworks Authority  
 Engineering Division, Room 202  
 Gloria B. Nelson Public Service Building  
 688 Route 15, Mangilao, GU 96913

*Delivered via email*

RE: CHANGE ORDER No. 003 to Extend Construction Management Services from  
 the Original Contract Completion Date of 22 August to 25 November 2017,  
 Revision 003  
 GWA Project No. W11-008-BND

Mr. Bordallo:

EA Engineering, Science, and Technology, Inc., PBC (EA) hereby submits this Change Order (CO) No. 003 for GWA Project No. PW W11-008-BND to extend construction management services from the original construction contract completion date, 22 August 2017, to 25 November 2017 on a time and materials cost up to \$119,381. This cost estimate also includes extended engineer of record (EOR) services for technical submittal reviews, design refinements, request for information responses and CADD as-built drawings.

EOR services through CO No. 002 are complete. Project closeout and post-construction services authorized per the original contract remain unchanged. In addition, EA efficiently executed construction management services through 22 August 2017 and applied an adjustment of (\$62,275) to this CO, itemized in Table 1 below.

**Table 1. EA Adjustment Value for Efficiently Executing Construction Management Services**

Element	Value
Budget – Original	\$749,184
Engineer of Record Services – Change Order No. 001	\$49,319
Engineer of Record Services – Change Order No. 002*	\$25,477
<b>Budget – Total</b>	<b>\$823,980</b>
Expenditures from Notice to Proceed until 22 August 2017	(\$695,012)
Project Closeout – Original	(\$25,779)
Post Construction – Original	(\$40,914)
<b>Past and Planned Expenditures – Total</b>	<b>(\$761,705)</b>
<b>Adjustment</b>	<b>\$62,275</b>
* As of 22 August 2017, Change Order No.002 EOR services complete, but not invoiced.	

## Exhibit (3 of 6)



**EA Engineering, Science, and Technology, Inc., PBC**

1001 Army Drive, Suite 103  
Barrigada, Guam 96913  
Telephone: 671-646-5231

Fax: 671-646-5230  
www.eaest.com

Due to the following change conditions that occurred under the associated D-Series Wells rehabilitation project (PW 05-14), EA anticipates that construction will require three months in addition to the contract period of performance:

- PCO 001: Video Logs of 12-inch Boreholes (CO 001)
- PCO 002: Fencing Curb Removal (CO 003)
- PCO 003: Chlorine Analyzer Relocation (CO 003)
- PCO 004: Door Replacement at D-18 and D-22 (CO 005)
- PCO 005: New Borehole at D-18 (CO 002)
- PCO 006: Electrical Modifications (CO 004)
- PCO 007: New Borehole at D-03 (CO 003)
- PCO 008: Sounding Tube Modifications (CO 004)
- PCO 009: Resize D-17 Pump (CO 003)
- PCO 010: Well Materials (CO 004)
- PCO 011: Guam EPA Requirement to Increase Pump Test Duration (CO 004)
- PCO 012: Traffic Control Plan (CO 004)
- PCO 013. 72-Hour Pump Test (CO 005)
- PCO 014. D-18 Pump Upsize (CO 005)
- PCO 015. D-03 Pump Upsize (CO 005)
- PCO 016. M-09 Additional Grout (CO 005)
- PCO 017. Schedule 80 Pump Columns (CO 005)
- PCO 018. D-17 and 18 Asbestos Taps (CO 005)
- PCO 019. Human Machine Interface (CO 005)
- PCO 020. Partial M-09 Credit (CO 005)
- PCO 021. Well Equipment (CO 006)
- PCO 022. Isolation Valves (Proposed CO 007)
- PCO 023. Gravel Pack (Proposed CO 007)
- PCO 024. Request for Equitable Adjustment (Proposed CO 007)
- PCO 025. Fencing (Proposed CO 007)
- PCO 026. New Instrumentation (Proposed CO 007)
- PCO 027. Electrical Connection (Proposed CO 007)
- PCO 028. Revised Well M-09 Scope (Proposed CO 007)

EA estimates that this project will be substantially complete by 25 November 2017. The basis of this CO 003 is estimating utilization over this 3.25 month extended period of performance, as shown in Table 2 below.

## Exhibit A (4 of 6)



EA Engineering, Science, and Technology, Inc., PBC

1001 Army Drive, Suite 103  
 Barrigada, Guam 96913  
 Telephone: 671-646-5231  
 Fax: 671-646-5230  
 www.eaest.com

**Table 2. Estimated Utilization for 3.25 Month Extended Period of Performance**

<b>Description/Labor Class</b>	<b>August-17</b>	<b>September-17</b>	<b>October-17</b>	<b>November-17</b>
Construction Manager	85%	85%	75%	75%
Deputy Construction Manager	20%	0%	0%	0%
Construction Field Coordinator	100%	100%	100%	85%
Administration/Document Control	30%	20%	20%	20%
Procurement Administrator	1%	1%	1%	1%
Principal	1%	2%	2%	2%
Program Manager	2%	2%	2%	2%
Construction Quality Engineer	3%	3%	4%	4%

Please do not hesitate to contact me if you have any questions or comments regarding this CO at [tword@eaest.com](mailto:tword@eaest.com). EA respectfully requests a response by Friday, 10 November 2017 to prevent potential impacts to the construction management services.

Sincerely,

Tressie Word, PE  
 Owner's Representative  
 EA Engineering, Science, and Technology, Inc.,  
 PBC

**Attachments:**

Cost estimate

**cc:**

Bill Chang, BC  
 Kurt Bilz, BC  
 George Watson, BC  
 Matthew Bowman, EA  
 Richard Price, EA  
 Shelly Rice, EA  
 File



## Exhibit A (5 of 6)

**COST PROPOSAL**CHANGE ORDER No. 003 to Extend Construction Management Services from 22 August to 25 November 2017  
GWA Project No. W11-008-BND**(1) DIRECT LABOR COSTS**

STAFF	CLASSIFICATION	Units	Rate	TASK 2 Project Controls (22 Aug to 25 Nov 2017)		TASK 3 Construction Inspection (22 Aug to 25 Nov 2017)		TOTAL	
				No.	Amount	No.	Amount	No.	Amount
T. Word	Construction Manager	Hour	\$151	292	\$44,070	162	\$24,357	454	\$68,427
B. Shambach	Deputy Construction Manager	Hour	\$156	0	\$0	11	\$1,716	11	\$1,716
T. Changulaf	Construction Field Coordinator	Hour	\$88	66	\$5,834	484	\$42,754	550	\$48,588
M. Heppie	Administration	Hour	\$121	114	\$13,812	7	\$851	121	\$14,663
P. Occhiogrosso	Procurement Administrator	Hour	\$175	4	\$701	2	\$308	6	\$1,009
R. Price	Principal	Hour	\$208	6	\$1,173	4	\$824	10	\$1,997
C. Brown	Program Manager	Hour	\$172	11	\$1,829	2	\$302	12	\$2,131
M. Bowman	Construction Quality Engineer	Hour	\$187	8	\$1,587	13	\$2,389	21	\$3,976
<b>TOTAL LABOR COSTS</b>					<b>\$69,007</b>		<b>\$73,501</b>		<b>\$142,508</b>

**(2) OTHER DIRECT COSTS**

OTHER DIRECT COSTS		Units	Rate	No.	Amount	No.	Amount	No.	Amount
1. Equipment and Supplies Usage									
Vehicle		mo	\$848.89		\$0	6	\$5,093	6	\$5,093
Mileage		ea	\$0.26		\$0	5400	\$1,404	5400	\$1,404
Procure CM Software		year	\$5,500.00		\$0	0	\$0	0	\$0
<b>Total Equipment and Supplies Usage</b>					<b>\$0</b>		<b>\$6,497</b>		<b>\$6,497</b>
2. Travel and Per Diem Costs									
Airfare		ea	\$2,500.00	0	\$0	0	\$0	0	\$0
Lodging		mo	\$2,232.00	0	\$0	0	\$0	0	\$0
<b>Total Travel and Per Diem</b>					<b>\$0</b>		<b>\$0</b>		<b>\$0</b>
3. Subcontractor Costs									
See subcontractor detail for breakdown	T&M		\$26,517.00		\$24,545		\$1,972		\$26,517
<b>Total Subcontractors</b>					<b>\$24,545</b>		<b>\$1,972</b>		<b>\$26,517</b>
G&A Applied to Subcontractor Costs and ODCs									
Fee Applied to Subcontractors Costs and ODCs			7.80%		\$1,915		\$661		\$2,575
<b>TOTAL OTHER DIRECT COSTS</b>					<b>\$2,646</b>		<b>\$913</b>		<b>\$3,559</b>
					<b>\$29,106</b>		<b>\$10,043</b>		<b>\$39,148</b>

**(3) TOTAL COST**

<b>SUBTOTAL</b>		\$98,112		\$83,544		\$181,656
<b>ADJUSTMENT</b>						<b>(\$62,275)</b>
<b>TOTAL COST</b>						<b>\$119,381</b>

## Exhibit A (6 of 6)

## SUBCONTRACTOR COST PROPOSAL

(1) SUBCONTRACTOR DIRECT LABOR COSTS					TASK 2 Project Controls (22 Aug to 25 Nov 2017)		TASK 3 Construction Inspection (22 Aug to 25 Nov 2017)		TOTAL	
STAFF	CLASSIFICATION	Units	Rate	No.	Amount	No.	Amount	No.	Amount	
TOTAL LABOR COSTS					\$0.00		\$0.00		\$0.00	

(2) SUBCONTRACTOR OTHER DIRECT COSTS			TASK 2 Project Controls (22 Aug to 25 Nov 2017)		TASK 3 Construction Inspection (22 Aug to 25 Nov 2017)		TOTAL	
SUBCONTRACTOR COSTS	Units	Rate	No.	Amount	No.	Amount	No.	Amount
GHD (Extended Services)	T&M	\$9,859.00	0.8	\$7,887.20	0.2	\$1,971.80	1	\$9,859.00
GHD (CADD Format As-Built)	T&M	\$16,658.00	1	\$16,658.00	0	\$0.00	1	\$16,658.00
Total Subcontractor Costs				\$24,545.20		\$1,971.80		\$26,517.00
TOTAL OTHER DIRECT COSTS				\$24,545.20		\$1,971.80		\$26,517.00

(3) TOTAL COST			TASK 2 Project Controls (22 Aug to 25 Nov 2017)		TASK 3 Construction Inspection (22 Aug to 25 Nov 2017)		TOTAL	
Subtotal Labor, Other Direct Costs, NOT including G&A and Fee				\$24,545.20		\$1,971.80		\$26,517.00



**GUAM WATERWORKS AUTHORITY**

*"Better Water, Better Lives."*

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

Tel: (671) 300-6846

### **Issue for Decision**

#### **Resolution No. 07-FY2018**

Relative to Approving the Contingency Fund to the Route 1(Asan-Adelup-Hagatna) Sewer Rehabilitation Asan Sewer Break Repair Contract

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

Due to the deteriorating conditions of the sewer lines on Route 1 in Asan and Adelup, GWA is requesting additional funding authorization via a contingency fund to the contract with Pacific Rim Constructors, Inc. (PRC) for the Route 1 (Asan-Adelup-Hagatna) Sewer Rehabilitation Asan Sewer Break Repair Project. This additional authorization funding will provide GWA with construction services as, and if needed, on a time and materials basis, should additional sewer lines collapse before the re-bid of Route 1 Sewer Rehabilitation and Replacement (Asan-Adelup-Hagatna) Project for Asan and Adelup is awarded and is under construction which is expected to occur before March 3, 2018.

#### **Where is the project located?**

The primary location of the repair work is along Route 1 in the village of Asan.

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

The contingency amount is ten percent (10%) of the original contract value of Two Million Four Hundred Seventy Thousand Six Hundred Fifty Eight Dollars (\$2,470,658.00) or Two Hundred Forty Seven Thousand Sixty Five Dollars and Eighty Cents (\$247,065.80). Approval of the contingency will bring the authorized total amount for the contract with PRC to Two Million Seven Hundred Seventeen Thousand Seven Hundred Twenty Three Dollars and Eighty Cents (\$2,717,723.80).

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

GWA intends to change order the construction services contractor to March 2018 when GWA anticipates an award to the Route 1 Sewer Rehabilitation and Replacement (Asan-Adelup-Hagatna) Project for Asan and Adelup area.

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

The funding for the additional work will be from the USEPA State Revolving Fund and, if necessary, 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

**GWA RESOLUTION NO. 07-FY2018**

**RELATIVE TO APPROVAL OF CONTINGENCY FUND TO THE ROUTE 1  
(ASAN-ADELUP-HAGATNA) SEWER REHABILITATION  
ASAN SEWER BREAK REPAIR CONTRACT**

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

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

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

**WHEREAS**, the stretch of gravity sewer line indicated is deteriorating and has experienced collapses in a number of locations, and the intent of this project is to rehabilitate, repair or replace these collapsed sections; and

**WHEREAS**, GWA and USEPA agree that efforts to rehabilitate, repair or replace these sewer lines are necessary to properly maintain and operate the sewer collection system; and

**WHEREAS**, The CCU approved Resolution 18-FY2017 on February 21, 2017 that authorized GWA to enter into a contract with Pacific Rim Constructors, Inc. (PRC) in the amount of Two Million Four Hundred Seventy Thousand Six Hundred Fifty Eight Dollars (\$2,470,658.00) to perform construction services for the Route 1 (Asan-Adelup-Hagatna) Sewer Rehabilitation Asan Sewer Break Repair Project; and

1       **WHEREAS**, on August 30, 2017, GWA extended the construction contract for the Route  
2       1 (Asan-Adelup-Hagatna) Sewer Rehabilitation Asan Sewer Break Repair Project to October 31,  
3       2017, to allow for additional time for completion of additional work added onto the contract; and

4  
5       **WHEREAS**, within the time of the extension, GWA has experienced three additional  
6       sections of collapsed pipe within the area of the scope; and

7  
8       **WHEREAS**, due to the deteriorating conditions of the sewer lines on Route 1 in Asan  
9       and Adelup, GWA is requesting additional funding authorization via a contingency fund to the  
10      Route 1 (Asan-Adelup-Hagatna) Sewer Rehabilitation Asan Sewer Break Repair Project, to  
11      provide GWA with construction services as and if needed, on a time and materials basis, should  
12      additional sewer lines collapse before the “re-bid” of *Route 1 Sewer Rehabilitation and*  
13      *Replacement (Asan-Adelup-Hagatna) Project for Asan and Adelup* is awarded and is under  
14      construction which is expected to occur before March 3, 2018; and

15  
16      **WHEREAS**, the unforeseen sewer line collapses have been occurring during the project,  
17      facilitating the need to request a contingency of ten percent (10%) of the original project amount  
18      of Two Million Four Hundred Seventy Thousand Six Hundred Fifty Eight Dollars  
19      (\$2,470,658.00), or Two Hundred Forty Seven Thousand Sixty Five Dollars and Eighty Cents  
20      (\$247,065.80) for assistance to GWA in the rehabilitation, repair and/or replacement of any  
21      additional collapsed sections under the unit price line items currently included in the contract;  
22      and

23  
24      **WHEREAS**, the approval of the contingency fund plus the original contract value will  
25      bring the total authorized funding amount to a maximum of Two Million Seven Hundred  
26      Seventeen Thousand Seven Hundred Twenty Three Dollars and Eighty Cents (\$2,717,723.80)  
27      and

28      **WHEREAS**, funding for the additional work will be from the USEPA State Revolving  
29      Fund and, if necessary, GWA Bond funds applicable to the project; and  
30  
31  
32

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the contracted unit rates submitted by PRC are fair and reasonable.
3. The CCU finds that the terms of the conditions set by GWA relative to commencement of work activities are fair and reasonable and serve as a measure of Quality Assurance/Quality Control (QA/QC).
4. The CCU hereby authorizes the management of GWA to increase the authorized funding to include a contingency of ten percent (10%) of the original project amount, in the amount of Two Hundred Forty Seven Thousand Sixty Five Dollars and Eighty Cents (\$247,065.80).
5. The CCU hereby further approves an increase in the total authorized funding amount for this project to a maximum of Two Million Seven Hundred Seventeen Thousand Seven Hundred Twenty Three Dollars and Eighty Cents (\$2,717,723.80).
6. The CCU hereby further approves the funding for the additional work will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds applicable to the project.

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

**DULY AND REGULARLY ADOPTED**, this 22<sup>nd</sup> day of November 2017.

Certified by:

Attested by:

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

\_\_\_\_\_  
**J. GEORGE BAMBA**  
Secretary

//

//

1 I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as  
2 evidenced by my signature above do hereby certify as follows:

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

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

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

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

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

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## GUAM POWER AUTHORITY

ATURIDÄT ILEKTRESEDÄT GUAHAN  
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

### Issues for Decision

#### GPA Resolution No. 2017-45 & GWA Resolution No. 08-FY2018

#### RELATIVE TO AUTHORIZING THE APPROVAL FOR THE UPGRADE AND COMBINED DATABASE OF GUAM POWER AUTHORITY AND GUAM WATERWORKS AUTHORITY CUSTOMER CARE AND BILLING (CC&B) SYSTEM

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

The Consolidated Commission on Utilities has undertaken a number of initiatives to identify opportunities within, in which the ratepayers of Guam will be better served if both utilities work together as a consolidated utility. GPA and GWA have planned and implemented the replacement of its previous Customer Information System (CIS) with Oracle's Customer Care & Billing (CC&B) system as of March 2015. GPA and GWA both realize that there are efficiencies and cost savings in having a consolidated effort in implementing and maintaining a single CIS.

In April of 2016 GPA and GWA procured the services of Prithibi LLC to provide training, GAP analysis review and ongoing support for the operation of CC&B and extended off site support of the system till June 2018.

In November of 2016, the GAP analysis document was presented to both GPA and GWA which listed deficiencies in the implementation of the CC&B system that impacts the short and long term operation of the CC&B System. In one of the noted deficiencies is that GPA and GWA are utilizing physically separate databases in Oracle CC&B and that there will be efficiencies in terms of cost and resources if one CC&B database is utilized for both utilities.

##### How much will it cost?

###### Change order increase amount:

- GPA – From: \$552,853 to \$1,312,853 (\$760,000)
- GWA – From: \$551,853 to \$1,391,853 (\$840,000)

Total: \$1,600,000

##### When will it be completed?

September 2018

##### What is its funding source?

Revenue Funded





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

**GUAM CONSOLIDATED COMMISSION ON UTILITIES**

**GPA RESOLUTION NO. 2017-45**

**GWA RESOLUTION NO. 08-FY2018**

**RELATIVE TO AUTHORIZING THE APPROVAL FOR THE UPGRADE AND COMBINED  
DATABASE OF GUAM POWER AUTHORITY AND GUAM WATERWORKS AUTHORITY  
CUSTOMER CARE AND BILLING (CC&B) SYSTEM**

**WHEREAS**, the Consolidated Commission on Utilities has undertaken a number of initiatives to identify opportunities within, in which the ratepayers of Guam will be better served if both utilities work together as a consolidated utility; and

**WHEREAS**, GPA and GWA have planned and implemented the replacement of its previous Customer Information System (CIS) with Oracle's Customer Care & Billing (CC&B) system as of March 2015; and

**WHEREAS**, the GPA and GWA both realize that there are efficiencies and cost savings in having a consolidated effort in implementing and maintaining a single CIS; and

**WHEREAS**, in April of 2016 GPA and GWA procured the services of Prithibi LLC to provide training, GAP analysis review and ongoing support for the operation of CC&B and extended off site support of the system till June 2018; and

**WHEREAS**, in November of 2016, the GAP analysis document was presented to both GPA and GWA which listed deficiencies in the implementation of the CC&B system that impacts the short and long term operation of the CC&B System; and

**WHEREAS**, one of the noted deficiencies is that GPA and GWA are utilizing physically separate databases in Oracle CC&B and that there will be efficiencies in terms of cost and resources if one CC&B database is utilized for both utilities and

32       **WHEREAS**, GPA and GWA has proposed a ten (10) month project with Prithibi LLC, to perform an  
33 upgrade to the current CC&B program and to also allow the GPA and GWA databases to co-exist in one  
34 instance; and  
35

36       **WHEREAS**, GPA and GWA now request authorization for additional expenditures to address the  
37 professional services for the CC&B upgrade and combining of the two databases that amounts to \$1,600,000,  
38 with the portion of GPA (\$760,000) and GWA (\$840,000), respectively.  
39

40       **NOW, THEREFORE BE IT RESOLVED**, the following policy is adopted by the Consolidated  
41 Commission on Utilities;  
42

43       1.       The General Manager of the Guam Power Authority (GPA) and the General Manager of the Guam  
44 Waterworks Authority (GWA) is authorized to approve the Change Order Agreement with Prithibi LLC, to  
45 increase the authorized amount from \$552,853 to \$1,312,853 for GPA and \$551,853 to \$1,391,853 for GWA,  
46 respectively; and  
47

48       2.       The General Manager of GPA and GWA is hereby authorized the additional expenditure (cost share) for  
49 each agency as follows:

50               GPA Share: \$760,000

51               GWA Share: \$840,000  
52

53       3.       The General Manager of GWA is authorized to petition the Public Utilities Commission for review and  
54 approval of the additional expenditures to address the professional services for the CC&B upgrade and database  
55 merge.  
56

57       **RESOLVED**, that the Chairman certifies and the Board Secretary attests to the adoption of this  
58 Resolution.  
59

60       **DULY AND REGULARLY ADOPTED AND APPROVED THIS 22<sup>ND</sup> DAY OF NOVEMBER**  
61 **2017.**  
62

63 Certified by:

Attested by:

64  
65 \_\_\_\_\_  
66 **JOSEPH T. DUENAS**  
67 Chairperson  
68 Consolidated Commission on Utilities  
69

\_\_\_\_\_  
66 **J. GEORGE BAMBA**  
67 Secretary  
68 Consolidated Commission on Utilities  
69

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

The foregoing is a full, true and correct copy of a 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: \_\_\_\_\_



**GUAM WATERWORKS AUTHORITY**

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

Tel: (671) 300-6846

### **Issue for Decision**

#### **Resolution No. 09-FY2018**

Relative to Approval of the Northern District Wastewater Treatment Plant (NDWWTP) Land Acquisition Funding

#### **What is the projects objective and is it necessary and urgent?**

The objective of the resolution is to seek CCU approval to use other funding sources such as System Development Charge Fund and bond funds under CIP line items applicable to the project to supplement the balance of the funds required to use towards the purchase of the GALC property for the purposes of upgrading the NDWWTP to secondary treatment.

#### **Where is the project located?**

The subject property is currently Guam Ancestral Land Commission property adjacent to the existing NDWWTP.

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

The fair market value for the purchase of the GALC property adjacent to the NDWWTP is Two Million Four Hundred Ninety Thousand Dollars (\$2,490,000.00). GWA currently has Five Hundred Sixty Thousand Dollars (\$560,000.00) from the OEA grant and One Million Dollars (\$1,000,000.00) for 2010 Bond funds applicable for the purchase of the GALC property. The balance of the funds required is approximately One Million Dollars (\$1,000,000.00).

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

Acquisition of the subject property should take approximately 3-4 months after approval of funding availability. This time frame includes final property map approval and recording at Guam Land Management as well as escrow services to purchase the property from GALC.

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

The funding will be from System Development Charge Fund and bond funds under CIP line items applicable to the NDWWTP Secondary Treatment Upgrade project.



CONSOLIDATED COMMISSION ON UTILITIES  
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**GWA RESOLUTION NO. 09-FY2018**

**RELATIVE TO APPROVAL OF NORTHERN DISTRICT WASTEWATER  
TREATMENT PLANT (NDWWTP) LAND ACQUISITION FUNDING**

**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 (OEA) awarded to GWA a General Assistance Grant for community investment August 26, 2016 for \$21,000,000, with subsequent additional grants forthcoming; 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 NDWWTP treatment upgrades to comply with current National Pollutant Discharge Elimination System (NPDES) permit and mitigate impacts to wastewater utilities, nearshore waters, and marine biological resources; and

**WHEREAS**, GWA had identified property owned by the Guam Ancestral Lands Commission (GALC) adjacent to the existing NDWWTP for the purpose of construction of the expansion of the plant to meet NPDES permit limits and to handle the additional flows due to

1 increased military and civilian population expected for the 2020 relocation of Marines to Guam;  
2 and  
3

4 **WHEREAS**, the CCU had approved Resolution 61-FY2016 on September 27, 2016 that  
5 supported proposed draft legislative language relative to the acquisition of certain Guam  
6 Ancestral Lands Commission properties; and  
7

8 **WHEREAS**, the draft legislative language approved by the CCU subsequently became  
9 law via Public Law 33-198 which contained certain requirements for both the Guam Water  
10 Works Authority and the Guam Ancestral Lands Commission; and  
11

12 **WHEREAS**, GWA conducted, after the passing of PL 33-198, preliminary land survey  
13 work and two land appraisal reports for the subject GALC property to work towards determining  
14 a fair compensation for the property; and  
15

16 **WHEREAS**, the appraisal companies, one of which was selected by GALC, completed  
17 their appraisal reports which was then transmitted to the GALC for their acceptance of the  
18 averages of the two appraisals to be the amount of compensation due to acquire the subject  
19 property; and  
20

21 **WHEREAS**, the GALC has responded back to GWA regarding the appraisals and have  
22 accepted that the Fair Market Values for the subject property is Two Million Four Hundred  
23 Ninety Thousand Dollars (\$2,490,000.00) (See Exhibit A); and  
24

25 **WHEREAS**, the CCU had further approved Resolution 14-FY2017 on January 24, 2017  
26 that reallocated One Million Dollars (\$1,000,000.00) of 2010 Bond funds to a new Capital  
27 Improvement Plan (CIP) line item specific for the Northern District Wastewater Treatment Plant  
28 Secondary Treatment Upgrades; and  
29

30 **WHEREAS**, the General Assistance Grant from OEA had a specific amount for land  
31 acquisition related to the NDWWTP upgrades in the amount of Five Hundred Sixty Thousand  
32 Dollars (\$560,000.00); and

**WHEREAS**, GWA management is seeking CCU approval to use other funding sources such as System Development Charge Fund and bond funds under CIP line items applicable to the project to supplement the balance of the funds required, or approximately One Million Dollars (\$1,000,000.00), to use towards the purchase of the GALC property; 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 use other funding sources such as System Development Charge Fund and bond funds under CIP line items applicable to the project to supplement the balance of the funds required, or approximately One Million Dollars (\$1,000,000.00), to use towards the purchase of GALC property for purposes related to the NDWWTP Secondary Treatment Upgrades.
3. The CCU hereby further approves GWA management to seek PUC approval of the use of SDC funds if required.

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

**DULY AND REGULARLY ADOPTED**, this 22<sup>nd</sup> day of November 2017.

Certified by:

Attested by:

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

\_\_\_\_\_  
**J. GEORGE BAMBA**  
Secretary

//

//

//

//

1 I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as  
2 evidenced by my signature above do hereby certify as follows:

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

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

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

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

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

11  
12 ///

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32 ///



## Exhibit A (1 of 4)



**DIPĀTTAMENTON MINANEHAN TĀNO'**  
(Department of Land Management)  
**GUBETNAMENTON GUĀHAN**  
(Government of Guam)



EDDIE BAZA CALVO  
Governor

RAY TENORIO  
Lieutenant Governor

MICHAEL J.B. BORJA  
Director

DAVID V. CAMACHO  
Deputy Director

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671-649-5383

November 16, 2017

Miguel C. Bordallo, P.E.  
General Manager  
Guam Waterworks Authority  
PO Box 3010  
Hagatna, GU 96932

**RE: Guam Ancestral Lands Commission Approval of Appraisals Defined By  
Public Law 33-198 for Proposed Lot 10190-1, Municipality of Dededo**

Hafa Adai Mr. Bordallo,

This letter acknowledges receipt of your November 8, 2017, letter and its attachment of appraisals required by the referenced public law for the transfer of Guam Ancestral Lands Commission (GALC) property to the Guam Waterworks Authority.

A recorded land survey map and land registration of the desired property is required before the parcel may be portioned for transfer. The Department of Land Management and the Guam Ancestral Lands Commission will assist in every way necessary to reasonably complete the land registration.

Listed below is the breakdown of the appraisals and the fair market value that will serve as the necessary compensation for the transfer of the lot known as a 70,000 square meter portion of Andersen Communications Annex No. 1 (AJKD), Municipality of Dededo, and tentatively proposed to be identified as Lot 10190-1, Municipality of Dededo.

<b>GWA NDWWTP Appraisals P.L. 33-198</b>	
<b>Proposed Lot 10190-1, Municipality of Dededo (70,000 sq m)</b>	
<b>Portion of Lot Andersen Communication Annex No. 1 (AJKD)</b>	
<b>1. Milo Appraisal Group</b>	<b>\$2,260,000</b>
Dated: July 28, 2017	
As Zone "H" Resort-Hotel Zone	
<b>2. Cornerstone Valuation</b>	<b>\$2,720,000</b>
Dated: October 16, 2017	
As Zone "H" Resort-Hotel Zone	
<b>FAIR MARKET VALUE</b>	<b>\$2,490,000</b>

NDWWTP Appraisals  
November 16, 2017  
Page 2 of 2

## Exhibit A (2 of 4)

At the GALC regularly scheduled board of commissioners meeting on November 15, 2017, the commissioners approved by motion and transmits GALC Resolution No. 2017-04 its acceptance of the appraisals and its acceptance of the Fair Market Value of \$2,490,000. Resolution No. 201-04 is attached.

Sincerely,



**MICHAEL J.B. BORJA**  
Director

Attachment: GALC Resolution No. 201-04

## Exhibit A (3 of 4)



### GUAM ANCESTRAL LANDS COMMISSION RESOLUTION NO. 2017-04

#### *Fair Market Value Determination for Portion of Andersen Communication Annex No. 1 (AJKD) as Authorized by Public Law 33-198*

**WHEREAS**, Public Law 33-198 authorizes the transfer of seventy thousand (70,000) square meters from the Guam Ancestral Lands Commission (GALC) Spanish Crown Lands inventory to Guam Waterworks Authority (GWA) for the construction of the Northern District Waste Water Treatment Plant; and

**WHEREAS**, Public Law 33-198 identified the property to be transferred as a portion of Andersen Communications Annex No. 1 (AJKD), Municipality of Dededo; and

**WHEREAS**, Public Law 33-198 required GWA to survey the designated property and to pay for two appraisals of the property based on Hotel Zone (H) to determine fair market value as the average of the two appraisals to be the purchase price; and

**WHEREAS**, GWA has identified the parcel in their proposed Lot Parceling Survey Map prepared by DCA & Associates as Lot 10190-1, Municipality of Dededo; and

**WHEREAS**, GWA submitted to GALC on November 7, 2017, two appraisals of the designated property completed by Milo Appraisal Group and Cornerstone Valuation with the following determinations:

<b>GWA NDWWTP Appraisals P.L. 33-198</b>	
<b>Proposed Lot 10190-1, Municipality of Dededo (70,000sq m)</b>	
<b>Portion of Lot Andersen Communication Annex No. 1 (AJKD)</b>	
<b>1. Milo Appraisal Group</b>	<b>\$2,260,000</b>
Dated: July 28, 2017	
As Zone "H" Resort-Hotel Zone	
<b>2. Cornerstone Valuation</b>	<b>\$2,720,000</b>
Dated: October 16, 2017	
As Zone "H" Resort-Hotel Zone	
<b>FAIR MARKET VALUE</b>	<b>\$2,490,000</b>

**WHEREAS**, on November 15, 2017, the Guam Ancestral Lands Commission board of commissioners at their regularly scheduled meeting, Tamuning, Guam, approved a motion to accept the appraisals with the purchase price to be the fair market value of two million four hundred ninety thousand dollars (\$2,490,000).


#### **NOW THEREFORE BE IT RESOLVED,**

The Guam Ancestral Lands Commission board of commissioners transmits to the Consolidated Commission on Utilities and the Guam Waterworks Authority its acceptance of the appraisals identified above; and

## Exhibit A (4 of 4)

The Guam Ancestral Lands Commission board of commissioners determines the purchase price for the 70,000 square meter portion of Andersen Communications Annex No. 1 (AJKD), Municipality of Dededo, also proposed to be identified in a Lot Parceling Survey Map prepared by DCA & Associates as Lot 10190-1, Municipality of Dededo, to be **two million four hundred ninety thousand dollars (\$2,490,000)**.

**DULY AND REGULARLY ADOPTED BY THE GUAM ANCESTRAL LANDS COMMISSION THIS 15<sup>TH</sup> DAY OF NOVEMBER 2017.**

  
\_\_\_\_\_  
ANTHONY J. P. ADA, Chairman

Date: 15 Nov 2017

  
\_\_\_\_\_  
MARIA G. CRUZ, Secretary

Date: Nov. 15, 2017

  
\_\_\_\_\_  
MICHAEL J. B. BORJA, Executive Director

Date: Nov 15, 2017