Gmail by Google

BENJAMIN CRUZ <speaker@senatorbjcruz.com>

MC Fwd: CCU MTG 8/18/18 / MEETING MATERIALS

1 message

BENJAMIN CRUZ <speaker@senatorbjcruz.com>
To: 34th Guam Legislature Clerks <clerks@guamlegislature.org>
Cc: Rennae Meno <rennae@guamlegislature.org>

Tue, Aug 28, 2018 at 11:32 AM

08/28/18	08/28/18	Consolidated Commission on Utilities	Materials for CCU Meeting Tuesday August 18, 2018.*	34-18-2268

---------- Forwarded message ---------
From: **Bernadette Lou Sablan** <l.sablan@gpagwa.com>
Date: Tue, Aug 28, 2018 at 11:23 AM
Subject: CCU MTG 8/18/18 / MEETING MATERIALS
To: "Andy Niven (ndynvn@yahoo.com)" <ndynvn@yahoo.com>, Angelica Perez <aperez@amibrokers.com>, Ann Borja - GWA <annborja@guamwaterworks.org>, "Annmarie Muna (amuna@ambrokers.com)" <amuna@ambrokers.com>, Artemio S Perez <aperez@gpagwa.com>, BENJAMIN CRUZ <speaker@senatorbjcruz.com>, "Cameron Mulka (cimiculka@guampdn.com)" <cimiculka@guampdn.com>, "Charlene Calvo (charlene.calvo@ipehq.com)" <charlene.calvo@ipehq.com>, Chilang F Unpingco <cfejeran@gpagwa.com>, "Fred Horecky (horeckylaw@teleguam.net)" <horeckylaw@teleguam.net>, "Gaynor Delano (gdumat-ol@guam.gannett.com)" <gdumat-ol@guam.gannett.com>, Gilda Mafnas <gildam@guamwaterworks.org>, Governor's Office <joy.unpingco@guam.gov>, "Greg P. Cruz" <gpcruz@guamwaterworks.org>, Heidi Ballendorf <heidi@guamwaterworks.org>, "Jams Y Kim (pacguam@gmail.com)" <pacguam@gmail.com>, "Jeff Johnson (jeffcharjohnson@hotmail.com)" <jeffcharjohnson@hotmail.com>, Jennifer G Sablan <jsablan@gpagwa.com>, "Jessica Peterson (webmaster@theguamguide.com)" <webmaster@theguamguide.com>, "Jessy Gogue (ocp.mayor@gmail.com)" <ocp.mayor@gmail.com>, "Joe John Mantanona (joejohnmantanona@gmail.com)" <joejohnmantanona@gmail.com>, "John O'Connor (john@postguam.com)" <john@postguam.com>, "John Reigel (jriegel@brwncald.com)" <jriegel@brwncald.com>, Joyce N Sayama <jsayama@gpagwa.com>, Karla Tydingco <ktydingco@guamwaterworks.org>, "Kevin Kerrigan (kevin@postguam.com)" <kevin@postguam.com>, Kim Garrido <kim.garrido@mec-guam.com>, "Louella Losinio (louella@postguam.com)" <louella@postguam.com>, Manny Apuron <mapuron@guamwaterworks.org>, "Maripaz N. Perez" <mnperez@gpagwa.com>, "Michael White (whitema@cdmsmith.com)" <whitema@cdmsmith.com>, "Nestor Licanto (nestor@kuam.com)" <nestor@kuam.com>, "Patricia L. Diego" <pldiego@gpagwa.com>, "PDN Newsroom (news@guampdn.com)" <news@guampdn.com>, "Peter Montinola (peter@isuguam.com)" <peter@isuguam.com>, Selma HG Blas <sblas@gpagwa.com>, "Telena Nelson (senatortcnelson@gmail.com)" <senatortcnelson@gmail.com>, "Therese Terlaje (senatorterlajeguam@gmail.com)" <senatorterlajeguam@gmail.com>, "Tina Thai (tina.thai@ipehq.com.)" <tina.thai@ipehq.com>

Hi everyone,

Attached is Board Books pdf file for today's CCU meeting.

GL# 34-18-2268
Speaker Benjamin J.F. Cruz

AUG 28 2018
Time: 1132 [] AM [] PM File No. ____
Received By:

Best,

Lou

B. Lou Sablan

Board Secretary

Consolidated Commission on Utilities

Admin Asst., Legal Counsel, GPA

GLORIA B. NELSON PUBLIC SERVICE BLDG.

3RD Floor, Executive Division

688 Route 15, Mangilao, GU 96913

P.O. Box 2977, Hagatna, GU 96932

Tel: (671) 648-3002

Fax: (671) 648-3290

Email: l.sablan@gpagwa.com

Website: http://guamccu.org/

http://guampowerauthority.com/home.html

http://guamwaterworks.org/

2018 AUG 28 AM 11:39

2268

--

OFFICE OF SPEAKER BENJAMIN J.F. CRUZ

Committee on Appropriations and Adjudication

I Mina'trentai Kuattro na Liheslaturan Guahan

Guam Congress Building | 163 Chalan Santo Papa | Hagatna, GU 96910

T: (671) 477-2520 | F: (671) 477-2522 | www.senatorbjcruz.com

CCU 8.28.18.pdf
15597K

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

Regular Board Meeting
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., August 28, 2018

AGENDA

1. CALL TO ORDER

2. APPROVAL OF MINUTES

3. COMMUNICATIONS
   - 3.1 Public Comments (2 min. per person)

4. GWA
   - 4.1 New Business
   - 4.1.1 GM Report
   - 4.1.2 Financials
   - 4.1.3 Resolution No. 42-FY2018 Relative to the JMI Edison Contract Vacuum Regulators and Chlorination System Parts
   - 4.1.4 Resolution No. 43-FY2018Relative Relative to the 2018 Water Resource Master Plan Update
   - 4.1.5 Resolution No. 44-FY2018 Relative to the Contract Asan-Adelup-Hagatna Sewer Rehabilitation and Replacement Project
   - 4.1.6 Resolution No. 45-FY2018 Relative to Change Order No. 1 for the Tumon No. 2, Hyundai and Chaot #2 Reservoirs Construction Contract
   - 4.1.7 Resolution No. 46-FY2018 Relative to Funding Source for the Baza Gardens Wastewater Cross- Island Pumping and Conveyance Construction Contracts
   - 4.1.8 Resolution No. 47-FY2018 Relative to Adoption of GWA's Asset Management Policy
   - 4.1.9 Resolution No. 48-FY2018 Relative to Purchases for Indefinite Quantity Contract with JMI Edison for Submersible Pump and Motor Inventory
   - 4.1.10 Resolution No. 49-FY2018 Relative to FY2019 Budget

5. GPA
   - 5.1 New Business
   - 5.1.1 GM Report
   - 5.1.2 Financials
   - 5.1.3 Resolution 2018-16 Relative to Fuel Oil #6 Contract
   - 5.1.4 Resolution 2018-17 Relative to NET Metering Credit Recommendation
   - 5.1.5 Resolution 2018-18 Relative to Organizational Realignment
   - 5.1.6 Resolution 2018-19 Relative to FY2019 Budget

6. ANNOUNCEMENTS
   - 6.1 Next CCU Meetings: GWA Work Session: 9/18; GPA Work Session 9/20; CCU Meeting 9/25

7. EXECUTIVE SESSION
   - 7.1 Personnel Matter

8. ADJOURNMENT

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

Regular Board Meeting
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., July 24, 2018

MINUTES

1. CALL TO ORDER

The Chairman called the CCU regular meeting of May 22, 2018 to order at 5:33 p.m. He said all five (5) Commissioners were present. Others in attendance include:

Commissioners:

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

Executive Mgmt.:

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

Management & Staff:

Paul Kemp	AGM Compliance & Safety / GWA
Dave Fletcher	GWA
Zina Pangelinan Charfauros	Personnel Admin. / GWA HR
Lisa San Agustin	Utility Services Admin / GWA
Ron Topasna	GWA
Patti Diego	Communications / GPA
Ann Borja	Mgmt. Analyst / GWA Ex. Office
Lou Sablan	Board Secretary / CCU

Guest:

Kurt Bilz	Brown & Caldwell
Rino Monzano	MEC
Takahiro Ozasa	MEC
John S. Aguon	Adztech-GCA

Angela Perez	AM Insurance
Annmarie Muna	AM Insurance
Charlene Calvo	IPE
Jeff Johnson	PUC
Nestor Licano	KUAM

2. APPROVAL OF MINUTES

The Minutes of June 5, 2018 was presented for approval.

Comm. Bamba motioned to approve the Minutes subject to verification and written correction, second by Comm. Gutherrtz. There was no further discussion or objection and the motion carried.

3. COMMUNICATIONS

3.1 Public Comments - None

4. GPA

4.1 Old Business

4.1.1 Generation Financing

The Chairman said that the Commission has had numerous discussions about this matter already and asked the Commissioners if anyone would like to make a motion. For the record the Chairman said Comm. Bamba recused himself from this discussion and from discussion on Section 4.2.4 Resolution 2018-015.

Comm. Sanchez responded that he is considering making a motion but before doing so, he would like to ask GM Benavente some questions related to the power point presentation at the GPA work session and that based on the GM's responses Comm. Sanchez said he may post a resolution to consider an alternative.

The Chairman commented that the resolution for consideration tonight is relative to the technical specs. The question that you are concerned about is whether or not the CCU wants to provide financing so it would be good to ask Mr. Benavente questions and said this is a good time to determine this matter because it would affect how we further proceed.

Comm. Sanchez said that the resolution being considered right now is to approve the technical bid documents. In the BOT presented at the work session last week there was a presentation by Mr. Benavente in which the idea of using GPA financing or a financial flexibility clause that would be added to a BOT approach and where if a winning bidder's cost was higher than GPA's ability to borrow, that the CCU could preserve the right to use the ability to finance the plant at a lower cost. The Chairman mentioned that the this section is not in the current version. The GM confirmed that the section about flexible financing presented last Tuesday was taken out of the power point presentation now (as it is being presented tonight). The GM confirmed yes. Comm. Sanchez said he will withhold his questions to management until the GM gives his presentation tonight.

The Chairman reminded the body that it is important that the CCU adopt what was approved by the PUC which is the3-step Independent Power Producer (IPP) /Build Operate Transfer (BOT) model and therefore if there are any amendments to the specs it would be proper to first decide if we want to include a finance piece and then to allow management to petition the PUC to amend their order to allow a finance piece. Comm. Sanchez said the CCU has the right to petition to PUC to change it's mind.

Comm. Santos said that the only way that management can petition the PUC is with a minimum 3 votes – he just wanted to make this clear. Without this, management cannot move forward to petition the PUC for an amendment. Comm. Sanchez agreed. He said procedurally, he recommended to present the resolution as written without the alternative financing piece for consideration and then he can propose an amendment and the body can vote on it. All agreed.

4.2 New Business

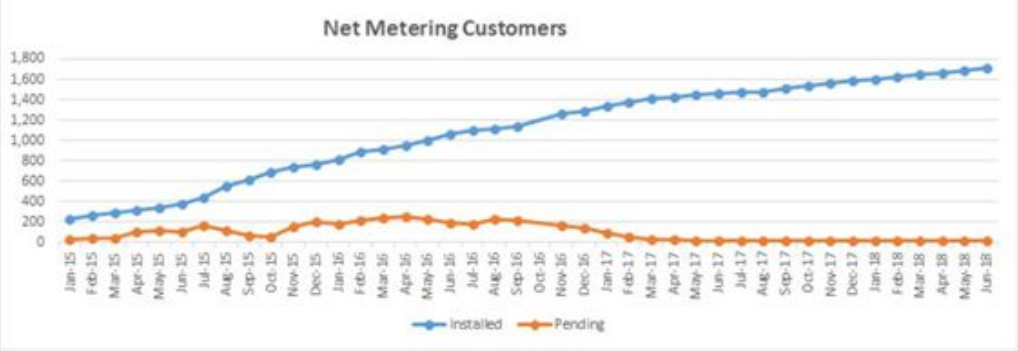
4.2.1 GM Report

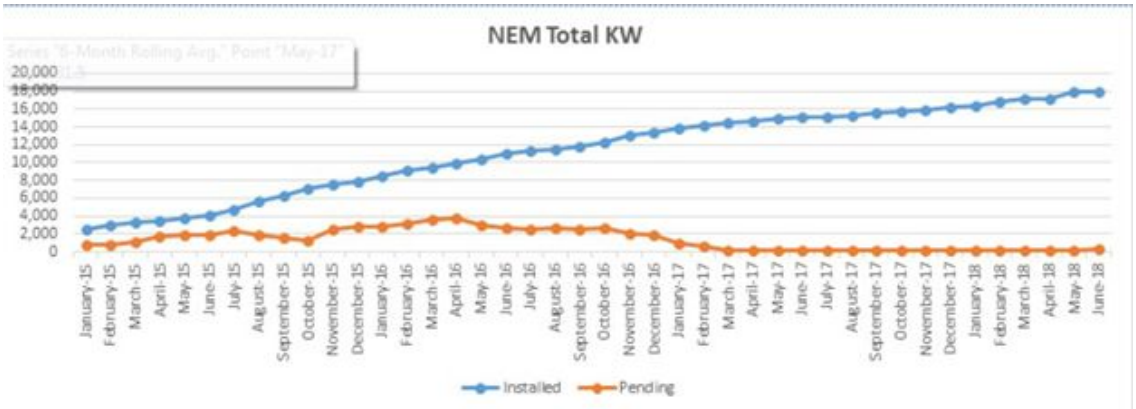
1. **Generation System Update:** The following summarizes the expected generation capacity projection for July 2018. All base load units are expected to be in operation for the month. The Cabras steam units are currently limited to 50 MW each to minimize the potential for boiler tube leaks which is a common occurrence for them.

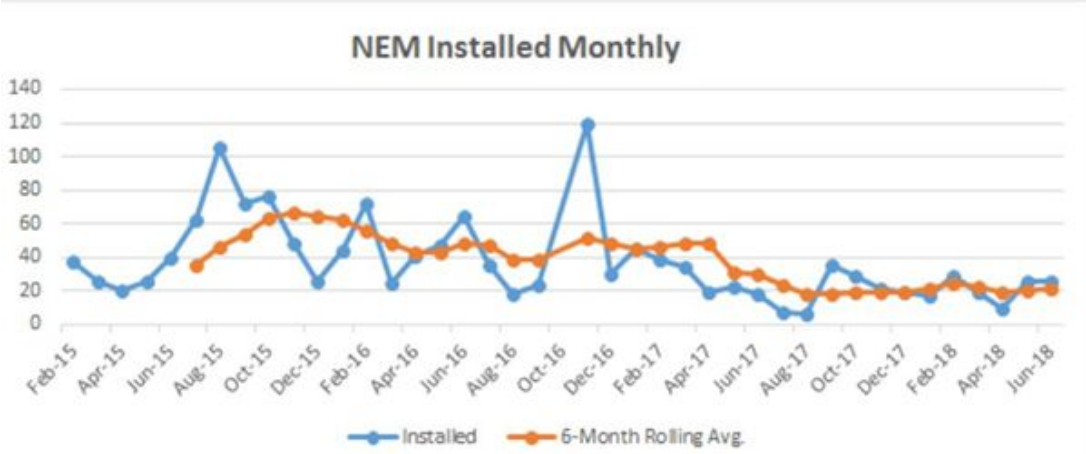
July 2018 Projected Capacity:	**360 MW**
July 2018 Projected Demand	**250 MW**
Projected Reserve Margin	**110 MW**

2. **Net Metering Summary Ending June 2018:**

Description:	Count	Kw	
Active	**1,710**	**16,849**	
Pending	20	129	
Totals:	1,730	16,978	
Service:	**Count**	**KW**	**Kw/Customer**
Residential	1,620	14,806	9.1
Others	90	2,043	22.7
Total:	1,710	16,849	9.9
% Residential	**94.7%**	**87.9%**	
Estimated 12 Months Revenue Impact:	**$3,360,697**		







3. Demand Side Management (DSM) Program Expenses Thru June 2018.

All Expenses – Fiscal Year

Description	FY16	FY17	FY18 as of June 30	Total to Date
Regular/OT Pay	$11,348.80	$22,256.00	$17,423.89	$51,028.69
Other Contractual	$28,278.50	$73,010.05	$38,992.25	$152,820.80
Bank Fees	$155.00	$1,032.06	$315.00	1,502.06
Paid Rebates-Split AC	$154,700.00	$557,275.00	$854,875.00	$1,566,850.00
Paid Rebates-Central AC	$3,400.00	$8,200.00	$1,300.00	$12,900.00
Paid Rebates-Washer/Dryer	$2,800.00	$7,425.00	$20,000.00	$30,225.00
Total Expenses	$200,682.30	$669,198.11	$932,906.14	$1,815,326.55

SUMMARY

DESCRIPTION	AMOUNT
Initial DSM Budget FY'16	$1,806,014.00
Interest Income as of June 18	$4,231.57
Total Expense	**$1,815,326.55**
Ending Balance as of June 18	$(5,080.98)
Addtl. Budget: Approved (FY'18)	$1,139,189.00
Total Ending Balance as of June 18:	**$1,134,108.02**

4. Net Metering Customer Credit Recommendation:
GPA scheduled a public hearing on Wednesday July 18th at 5:30pm here at Fadian. The public hearing was for GPA to present its recommendation which it made to the CCU on the phased reduction of net metering credits. GPA will report to the CCU the results of the public hearing and any changes it desires to make based on the public's input. Once the CCU approves GPA's recommendation, GPA could petition the PUC for their approval.

5. PUC Dockets:
The PUC approved the recommendation to hold LEAC at its current rate thru January 31, 2019.

6. New Power Plant Procurement:

- GPA completed the transaction for the Ukudu land on Friday July 13, 2018. GPA now owns the 60 acres.
- Multi-Step Bid Invitation No. 034-18 qualified bidder list has been established and consist of seven (7) proponents. These proponents will be provided the bid specifications once CCU approves the package subject to PUC approval.

7. Supervisory Control and Data Acquisition (SCADA) Commissioning: The installation of the new SCADA system is now underway. The targeted commissioning date is October 2018. The SCADA system is designed for Power, Water and Wastewater operations.

8. Liberation Day Parade: The parade was held this past weekend, Saturday July 21, 2018. GPWA participated in the parade and we also had a food tent. The celebration was a success and our GPWA float placed 3rd under the Government of Guam category.

9. Apprentice Graduation: The graduation ceremony for fifteen (15) apprentices occurred on Friday July 13, 2018 and received excellent media coverage. The next cycle of twenty (20) apprentices mostly in the T&D area is targeted to begin in October 2018. There are 314 qualified applicants vying for the program.

10. Tropical Storm Maria: The storm passed over Guam on July 5th, 2018. Storm blacked out the island for about half an hour. All customers were restored within two days. The estimated damage is about $234K.

11. Senator Nelson Informational Hearing: GPA provided an informational hearing to Senator Nelson on July 12, 2018. The informational briefing focused on LEAC, New Power Plant, and System Status. The presentation is attached for your perusal.

12. GMH Main Electrical Panel Maintenance: GPA has completed its task of conducting preventive maintenance on the GMH electrical panels. The maintenance was done between 6am to 2pm on Sunday, July 15, 2018. GMH operated on standby generator power during the outage and there was no interruption of power to GMH. GPA has now completed its work with GMH. GPA is preparing a standard operating procedure for GMH for use in the event of an emergency. Please see the attached presentation of the work done.

4.2.2 Financials – This matter was not discussed in detail.

4.2.3 Resolution 2018-014 /GWA Resolution 38-FY2018 IT Policy Initiatives

This resolution is a joint resolution and if approved will cover all GPWA infrastructure, assets and information technology systems. The CCU instituted the Cybersecurity Committee in 2017 to serve as the advisory and oversight group regarding information technology, infrastructure, and cybersecurity. The committee's responsibilities include the Guam Power Authority and Guam Waterworks Authority (GPWA) information technology systems, which includes policies, controls, risk mitigation, and infrastructure asset protection. A network security assessment recommended that GPWA develop common objectives and controls by establishing common policies, procedures, and business processes to manage risks.

The Cybersecurity initiative resulted in the formation of guidelines to ensure consistency and adequate protection and safeguards to GPWA systems, and resulted in the Password Creation and Protection Policy, the Computer, Software, License, E-mail, Internet, and Standard of Conduct policy, and the Network and Data System Access Policy.

Comm. Bamba motioned to approve Resolution 2018-15 which was second by Comm. Guthertz. There was no further discussion or objection and the motion was approved unanimously.

4.2.4 Resolution 2018-015 Multi-step Bid BOT Specs for New 120-180MW Generation Capacity

Again it was mentioned for the record that Comm. Bamba has recused himself from this matter.

If approved, Resolution 2018-15 will allow for a Multi-Step Bid for a Build, Own/Operate and Transfer (BOT) contract for a 120-180MW New Generation Capacity in Harmon. GPA was provided conditional approval by the PUC in November 2017 to initiate the solicitation to establish a qualified bidders list through Docket 18-02. The technical specifications are required and require PUC approval when completed. GPA has completed these technical specifications and seeks approval to continue with the bid for new capacity. GPA shall obtain CCU approval of the final contract upon completion of the bid.

The New Power Plant construction is estimated up to $400M. The BOT would recover costs over a 25-30 year term and will be completed by September 2022. The funding source would be Insurance Proceeds (Cabras 3&4) and Revenue Generated Funds

GPA has completed Step 1 of this three-step multi-step bid. A qualified bidders list has been selected and will be provided the technical bid specifications upon PUC approval. The GM said that this resolution specifically addresses the technical aspects of the new 180MW generation plant and if approved will allow management to solicit and create a list of qualified bidders. This matter was discussed in length at the GPA Work Session and nothing has changed relative to content.

Comm. Guthertz motioned to approve the resolution which was second by Comm. Santos.

In discussion Comm. Santos asked Comm. Sanchez to make his amendment. Comm. Sanchez said he would like to ask the General Manager some questions first because depending on his response he may or may not have an amendment. Comm. Sanchez asked what the rationale was to remove the financing option; he wanted to understand managements reason. Why does management not believe that GPA ratepayers should have the flexibility to substitute lower cost financing if the BOT partner's cost is higher. After discussions at the work session, the GM said that he was reminded by the Board that his authority was for BOT and not for financing and if the financing piece is something that the Commission wants that they can amend the resolution accordingly.

Comm. Guthertz injected at this point that this matter should be decided by the Commission and does not think it is fair to impose this on management. This is a policy decision and it is not fair to ask the GM what he thinks at this point. Comm. Sanchez said he disagrees, it is important to get Managements position and what he thinks of the overall proposal. Comm. Guthertz said the reason is very clear - there was no policy direction and tonight is when policy discussions and actions can happen.

Comm. Sanchez said on the motion to approve the resolution he has some questions. He asked the GM if he thought the decision not to include a flexibility clause is a good decision. The GM said his major concern is the need is to build a new power plant. He referred to the timeline and the environment relative to procurement with potential protests. The GM said he wants to move forward with the power plant in the shortest amount of time. He said the first thing to consider is financing and with the bid there are7 bidders who are fully qualified to finance the plant. He is looking at the big picture and wants to move the project forward, not to complicate the picture and not to put us in possible protest. In his opinion his authority is to move forward with the IPP / BOT but can include the financing flexibility if amended by the Commission.

Comm. Sanchez asked if the CCU amended to add the financial piece would it affect the BOT. GM Benavente said he was not 100% but there could be a solution but it is not his recommendation to do that before finding the lowest bidder**.**

Comm. Sanchez said that he is in complete support of the BOT and management found a way to do it last Tuesday. The Commissioner asked if adding the financial piece would stop the BOT procurement. The GM said that it's a double edged sword – on one side there may be bidders who will hesitate to bid on the other side it may be very well possible that some bidders may be still be willing to participate regardless.

Comm. Sanchez asked the GM several other questions of the GM. He then asked legal counsel with the addition of the flexibility clause does counsel have an opinion legally, in particular, if it affects the BOT. Counsel Botha said that he does not know whether it will violate the BOT. Relative to taxable vs. tax-exempt financing Comm. Sanchez asked Counsel Botha to read the bond counsel's response which he did. Barclays said he wanted to discuss the position of Bond Counsel Mr. John Wang where he said that it would be a taxable financing because Barclay's actually issued a tax-exempt bond financing recently which is a historically lower rate.

Legal Counsel Botha mentioned that there was another email he received from Bond Counsel Mr. John Wang this morning there may be a way for GPA bonds to be issued tax exempt but the BOT procurement would have to be re-written. After some discussion it was mentioned that this statement needs to clarified further.

Comm. Santos injected to Comm. Sanchez to get to the point – that the CCU and management cannot sit here all night to debate an issue that will not pass. He said to make the amendment and let's move on.

Comm. Sanchez stated for the record that he opposes the motion to approve this resolution without including a financial flexibility clause and distributed and to support his opposition distributed analysis for the record. In the analysis Comm. Sanchez showed (2) scenarios with the plant costing approximately $400M, partners would invest 20% or $80M, GPA will provide $70M from insurance proceeds to provide to the package so the partner would have to finance $250M and pass this on to GPA & its ratepayers. At 4.25% in 25 years debt service is $16.4M per year totaling $410M in total debt service but the discounted value is $250M. Per the analysis for every quarter percent higher than GPAs cost of borrowing the ratepayers will be paying an extra $400k per year for the next 25 year or the equivalent of $6M net present value. So a $250M loan would cost the ratepayers an extra $6M for every quarter percent higher in interest cost that the partner would charge to GPA that if we could borrow the money ourselves. If the winning bidder charged GPA 1% more than our financing debt service would go to $16.4M to $18.2M an increase in $1.8M in debt service every year for the next 25 years. It was determined that this would require about a 1% rate increase in base rates. A $250M loan costing 1% more than GPA financing would increase ratepayer financing cost $26M net present value, annual debt service by 1.7M for 25 years and 10% more than the entire load that GPA is borrowing.

If the winning bidders interest rate was 1.5% higher than GPA financing cost debt service is 19M, 2.6M more resulting in 1.5% base rate increase. Comm. Sanchez gave several other examples based on higher quarter percent. The point he was trying to make was that GPA runs the risk of base rate increases to pay for higher financing costs.

Comm. Sanchez said it is for this reason that he opposes not including the financing clause. He further stated that any financing that accelerates the paydown of BOT debt if it is clear that savings are available will require PUC and Legislative approval and they have never turned GPA down if it means savings to ratepayers. Putting in the financing clause give flexibility and the protection for our ratepayers. The goal is to mitigate financial risks. I am illustrating the magnitude of potential risk and what it means to ratepayers. It doesn't change the BOT

Comm. Sanchez in all his years and experience with BOT's since 1990 said one lesson learned that he promised to advocate for ratepayers his years on the CCU is not to put ourselves into only 1 option for financing and only the developers financing. He said management has worked so hard not get investment grade ratings that gives management a tool to mitigate high interest rates by partners. He said he doesn't understand why his colleagues do not want to protect ratepayers on the downside from high interest rates. He said the flexibility to use GPA financing will send a message to bidders. It will encourage bidders to offer the lowest interest financing. Adding this clause can only benefit ratepayers. Having flexibility is always a good thing.

Comm. Santos made an amendment to add the financial flexibility clause back into the resolution; seconded by Comm. Sanchez. On the amendment there were 2 ayes, 2 nays, 1 abstention. The motion failed.

In discussion Comm. Guthertz said for the record that she cares a lot about the ratepayers. She does not look forward to using 80% of GPA money because 80% is almost 100% and with that GPA can build & operate the plant themselves. if we are going to spend that kind money. She said she would rather use it to put our lines underground. Further and looking at our ratepayers and social dynamics there are lots of problems facing our ratepayers and if there is extra money she would look at the feasibility of putting money into infrastructure on land that that has been promised to our people i.e. Chamorro Land Trust

land that would require utility infrastructure. She would rather see our private partners use their money to build the plant and use GPA money to put in infrastructure for our people.

On the motion to approve Resolution 2018-15 the Chairman asked for show of hands. For the record the vote was 3 ayes, 1 nay and 1 abstention.

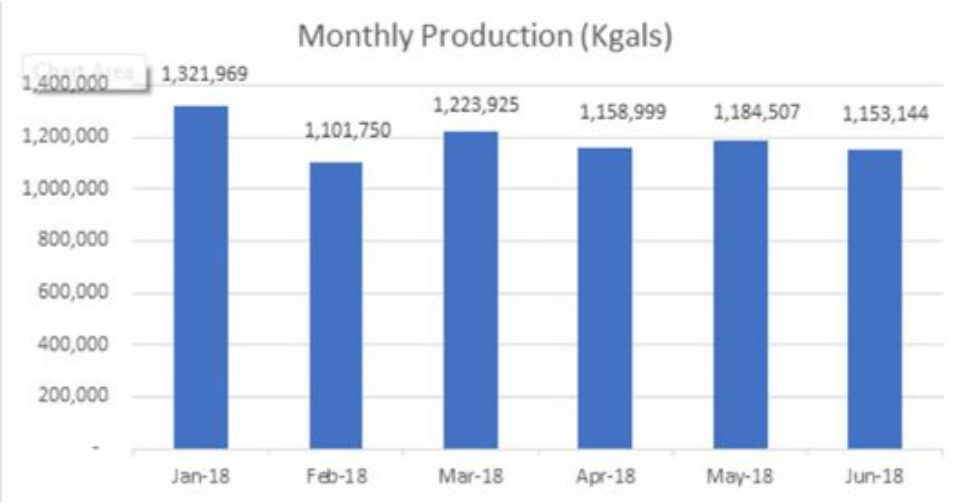
5. GWA

5.1 New Business

5.1.1 GM Report

Monthly Production Summary - May 2018					
Deep Wells				35.2	MGD
	Active wells =	95	of 120		
	Avg days in operation =	31.00	days		
	Total Production =	1,089,902	Kgals		
Springs				0.00	MGD
	Avg days in operation =	0	days	*placed on standby	
	Total Production =	0	Kgals		
Ugum Surface Water Plant				2.0	MGD
	Avg days in operation =	31	days		
	Total Production =	61,545	Kgals		
Tumon Maui Well				1.07	MGD
	Avg days in operation =	31	days		
	Total Production =	33,060	Kgals		
		1,184,507	Kgals	38.2	MGD

Monthly Production Summary - June 2018					
Deep Wells				35.4	MGD
	Active wells =	94	of 120		
	Avg days in operation =	30.00	days		
	Total Production =	1,062,758	Kgals		
Springs				0.00	MGD
	Avg days in operation =	0	days	*placed on standby	
	Total Production =	0	Kgals		
Ugum Surface Water Plant				1.9	MGD
	Avg days in operation =	30	days		
	Total Production =	58,373	Kgals		
Tumon Maui Well				1.03	MGD
	Avg days in operation =	30	days		
	Total Production =	32,013	Kgals		
		1,153,144	Kgals	38.4	MGD



Tumon Maui Well Production vs. Demand for June 2018



Distribution

Monthly Distribution Summary - May 2018

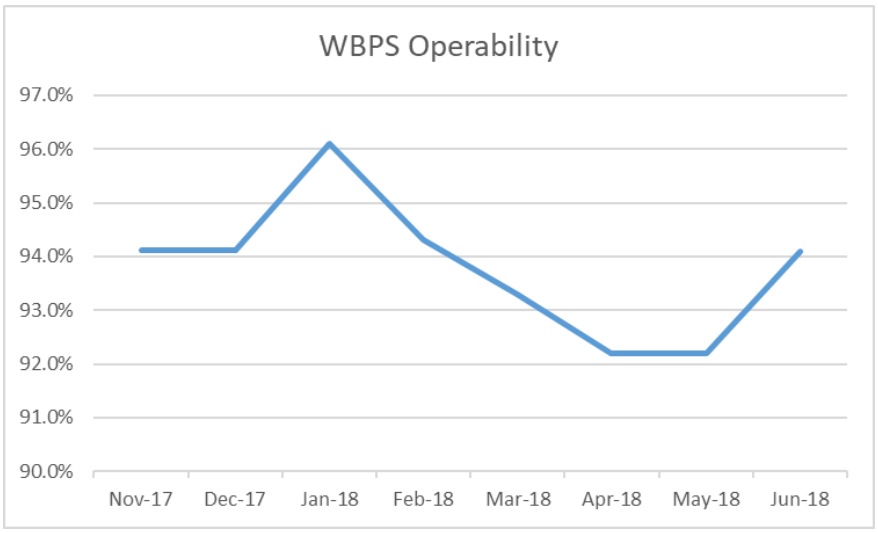
Water Booster Pump Stations

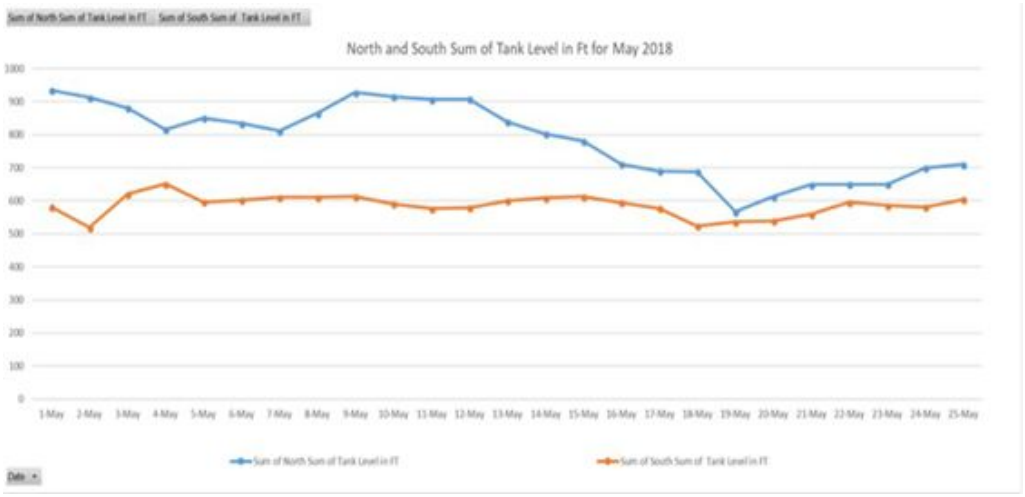
District	No. of Stations	Total Pumps	Pumps Operating	% Operationa
Northern	11	21	20	95.2%
Central	7	15	13	86.7%
Southern	7	15	14	93.3%
	25	51	47	92.2%

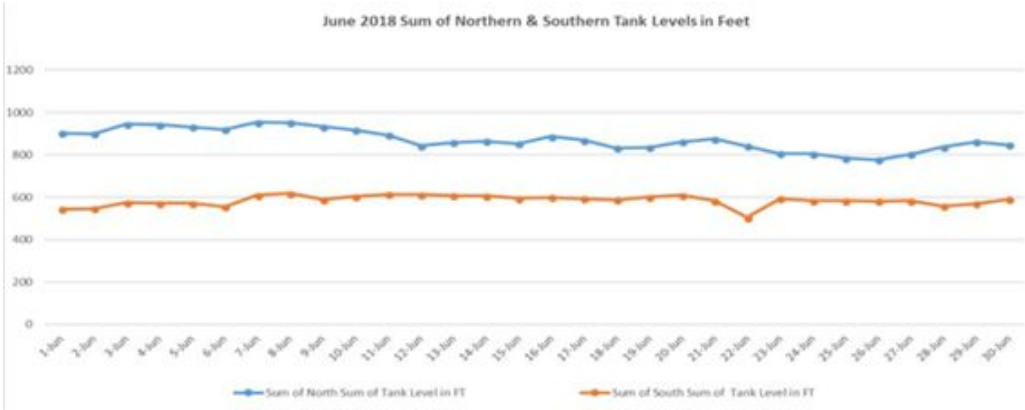
Monthly Distribution Summary - June 2018

Water Booster Pump Stations

District	No. of Stations	Total Pumps	Pumps Operating	% Operational
Northern	11	21	20	95.2%
Central	7	15	13	86.7%
Southern	7	15	15	100.0%
	25	51	48	94.1%


WBPS Operability
97.0%
96.0%
95.0%
94.0%
93.0%
92.0%
91.0%
90.0%
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18


North and South Sum of Tank Level in Ft for May 2018


June 2018 Sum of Northern & Southern Tank Levels in Feet
1200
1000
800
600
400
200
0

Wastewater Collections

Monthly Collections Summary - May 2018

Wastewater Pump Stations

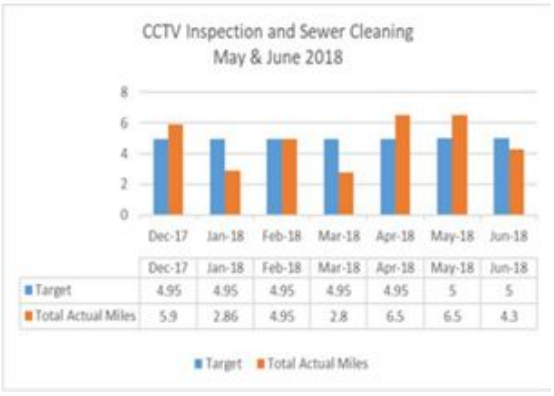
District	No. of Stations	Total Pumps	Pumps Operating	% Operational
Northern	22	52	45	86.5%
Central	29	63	54	85.7%
Southern	27	54	43	79.6%
	78	169	142	84.0%

Monthly Collections Summary - June 2018

Wastewater Pump Stations

District	No. of Stations	Total Pumps	Pumps Operating	% Operational
Northern	22	52	44	84.6%
Central	29	63	45	71.4%
Southern	27	54	41	75.9%
	78	169	130	76.9%





Wastewater Treatment

Monthly Wastewater Treatment Summary - May 2018

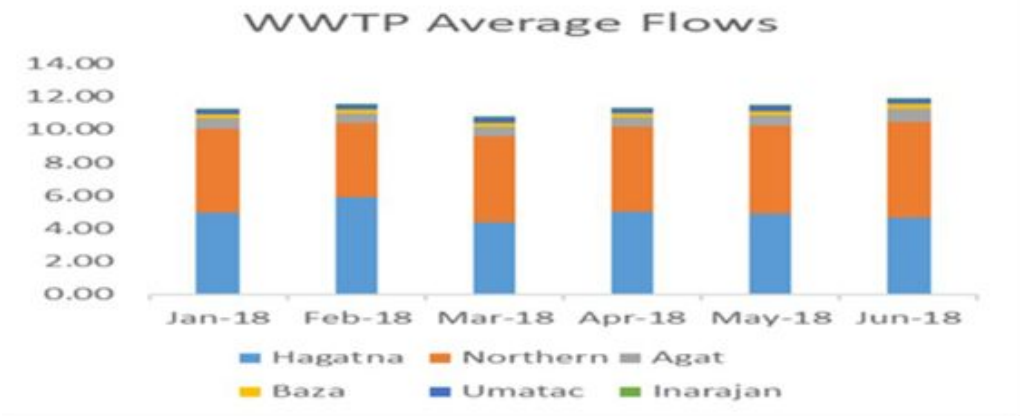
WW Treatment Plants - Flows

Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. ($)
Hagatna	4.93	583,080	$ 52,477
Northern	5.32	786,700	$ 70,803
Agat	0.63		
Baza	0.25		
Umatac	0.30		
Inarajan	0.07		
	11.50	1,369,780	$ 123,280

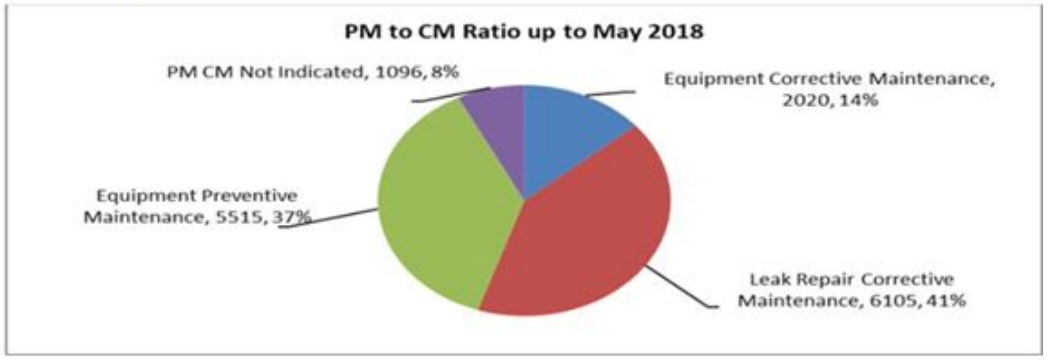
Monthly Wastewater Treatment Summary - June 2018

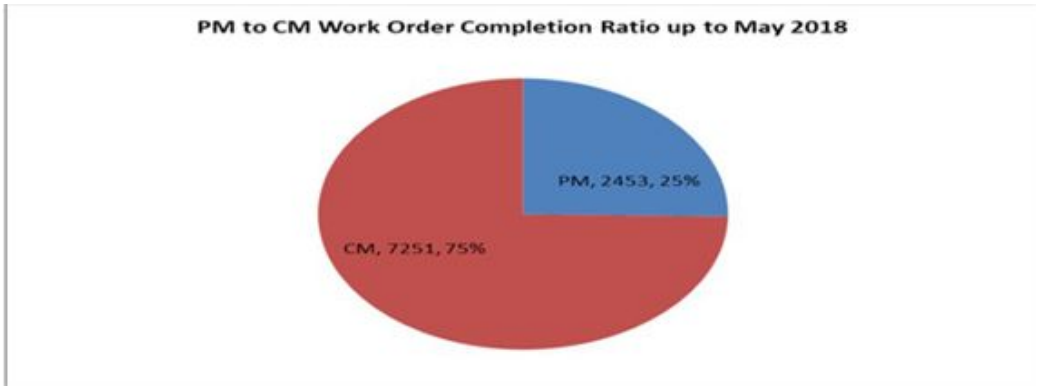
WW Treatment Plants - Flows

Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. ($)
Hagatna	4.67	717,120	$ 64,541
Northern	5.78	836,600	$ 75,294
Agat	0.86		
Baza	0.25		
Umatac	0.30		
Inarajan	0.06		
	11.92	1,553,720	$ 139,835

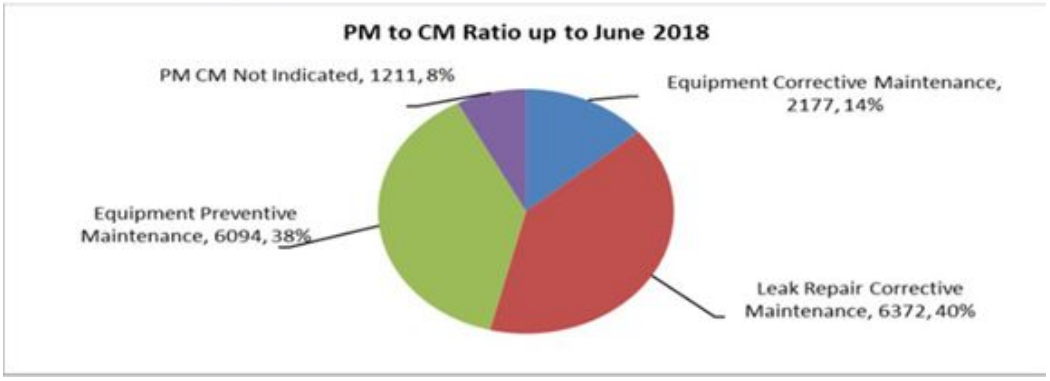


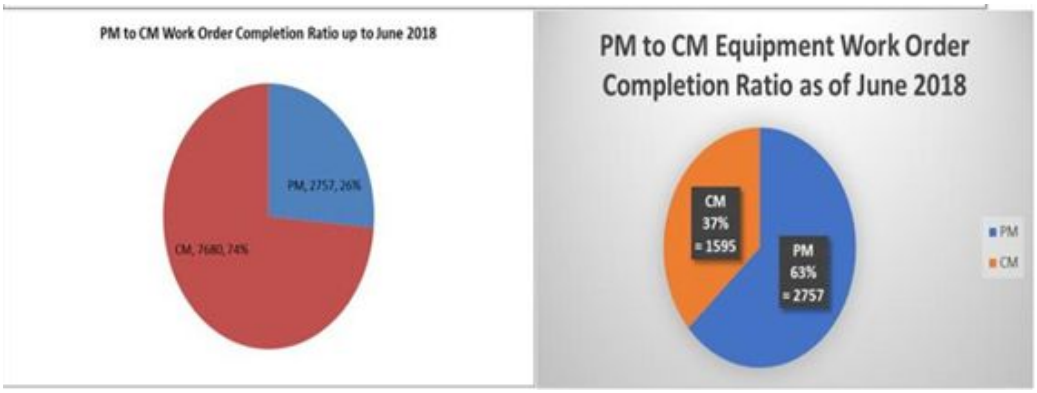
Asset Management for May 2018





Asset Management for June 2018





Operational Issues

Production & Distribution

- Leak repair
  - Crews maintaining performance - As of June 30th, there were less than 40 pending repairs
    - 88% reduction from 2017-2018 Maximum of 283 pending
    - 80% reduction from 2018 Maximum of 179 pending
  - IFB for advanced remote leak detection services should be advertised next month
- WSCC –
  - SCADA FAT completed
  - Coordination of WSCC – PSCC layout on-going
  - SCADA equipment and installation requirements on-going
- Pump and motor inventories okay; additional orders for recent replacements are being made
- GWA Crane Repair –new cable installation pending; load testing completed.

Wastewater Collection & Treatment

- CCTV & Collections System:
  - Planning department assisting CCTV Crews to revise completed reports to meet appropriate industry standards
  - SSES and CCTV-based repairs to collection lines and SMHs are being conducted by Ops personnel
- Pump stations
  - Facility maintenance efforts have been completed
  - Minimum pump and motor inventory levels being established (similar to effort with deep-wells)
  - Critical spares and replacements procurement is on-going
- Treatment Plants
  - Hagatna WWTP
    - Effluent pumps back up
    - Centrifuges: one operational, repairs to 2nd are almost complete.
  - Northern WWTP
    - Both centrifuges back in operation
  - Agat-Santa Rita WWTP

- Solids process commissioning (GBTs, Centrifuges) to be completed in the next 2 weeks
- With that, critical process facilities all operating and substantially complete

- U-M WWTP
  - Work on-going at the site
  - Significant delays have occurred because of USF&W / EPA permitting issues
- Baza Gardens
  - Work on-going for all 3 phases
  - Anticipated completion is now Sep 30th
  - Delay letter has been sent to USEPA

Meters for month of May 2018

COMPLETED FIELD ACTIVITY JAN 2017 THRU MAY 2018 (POSTED IN CIS)	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	TOTAL:	COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	745	87	398	743	1000	1007	434	378	730	969	1213	1429	84	9651	856
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	432	259	239	1086	2120	121	121	10174	0
GWA - Verify Zero Report	30	124	124	94	96	402	261	199	550	89	82	169	356	106	117	69	13	2871	0
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	127	612	858	1223	1033	463	19	5874	0
TOTAL:	453	312	343	743	1360	878	1351	2237	###	###	1095	1418	###	3283	4505	2082	237	28570	856

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	144	252	305	210	302	397	1013	1130	927	704	721	1041	1347	815	671	10674	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	122	84	29	111	229	80	77	4	136	23	323	48	73	1351	$ 912,582.81

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

Project resumed June 04 2018

REMAINING ACTIVE BADGER LP MODELS AS OF MAY 31, 2018: 20936

ACTIVE LP MODELS - PURCHASE YEAR	COUNT	WARRANTY STATUS
2012	8892	13843 METERS WITH EXPIRED WARRANTY
Jan-13	2133	
Feb-13	743	
Mar-13	629	
Apr-13	0	
May-13	1446	
Aug-13	2546	7093 METER WITH AN ACTIVE WARRANTY
Sep-13	1	
Oct-13	0	
Nov-13	1	
Dec-13	0	
Jan-14	1	
Feb-14	646	
Mar-14	0	
Apr-14	2434	
May-14	0	
Jun-14	72	
Jul-14	0	
Aug-14	1392	
TOTAL:	20936	

Meters for month of June 2018

COMPLETED FIELD ACTIVITY JAN 2017 THRU JUNE 2018 (POSTED IN CIS)	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	TOTAL:	COMPLETED FIELD ACTIVITIES (in excess TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	743	87	998	748	1200	1007	434	378	780	969	1213	1429	84	1299	10950	122
GWA - Meter Exchange	398	179	220	276	482	353	501	807	1526	1089	452	259	239	1086	2220	121	121	1056	11230	284
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	82	169	356	106	117	69	13	2	2873	0
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	127	612	858	1123	1055	463	19	5	5879	0
TOTAL:	453	312	343	743	1360	878	1351	2237	###	###	1095	1418	###	3283	4505	2082	237	2362	30932	406
# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	344	252	305	210	302	397	1013	1030	927	704	721	1041	1347	815	671	544	11218	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	222	84	29	111	219	80	77	4	136	23	323	48	75	20	1371	$ 916,550.91
#OF FIELD CREW PERFORMING CHANGE OUTS:	10	10	10	9	11	11	14	14	10	10	10 *	10 *	9	10	2	2	2	10		
#OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	7	4	3	4	8	9	10	10	10	10	10	10	8	11	3	4	1	10		
#OF SUPV. STAFF TO ISSUE WATER AUD AND PROGRAM NEW METERS:	3	3	3	3	3	3	3	3	3	3	3	3	3	4	0	0	0	3		
#OF TEST FACILITY PERSONNEL TESTING METERS:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
#OF ACCOUNTANTS CALCULATING BACK BILLS:	0	0	0	2	3	2	3	3	3	2	3	3	3	3	3	3	3	3		
TOTAL:	30	18	22	22	38	37	31	45	58	50	48	48	20	32	11	10	7	47		

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

REMAINING ACTIVE BADGER LP MODELS AS OF JUNE 30, 2018: 20054

AS OF JUNE 30 2018

ACTIVE LP MODELS - PURCHASE MO & YEAR	COUNT	
2012	8908	WARRANTY EXPIRED
Jan-13	2129	
Feb-13	742	
Mar-13	640	
Apr-13	0	
May-13	1452	
Jun-13	0	
Jul-13	0	
Aug-13	1614	ACTIVE WARRANTY
Sep-13	1	
Oct-13	0	
Nov-13	1	
Dec-13	0	
Jan-14	1	
Feb-14	648	
Mar-14	1	
Apr-14	2445	
May-14	0	
Jun-14	72	
Jul-14	0	
Aug-14	1400	
TOTAL :	20054	
	13871	WARRANTY EXPIRED
	6183	ACTIVE WARRANTY

Marbo (Andy-South) Wells – Status

- Involuntary reversion appears imminent; GWA Counsel transmitted draft easement documents to GSA for consideration with DoD
- No updates - Waiting on response from GSA

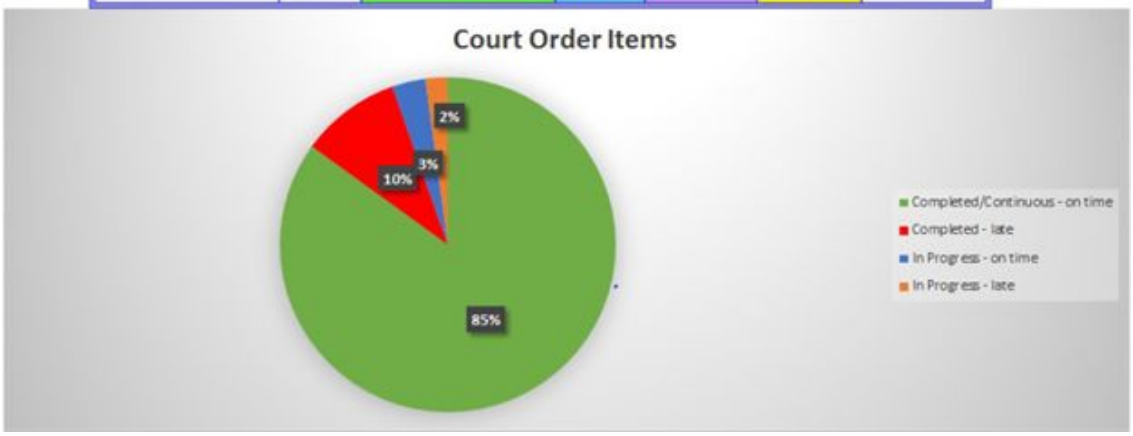
One Guam Update

- Santa Rosa Tank:
  - GWA and DOD are finalizing the design of the Intertie. All the property maps were completed and submitted to DOD.
  - Once the maps are completed, the letter to General Cox will be finalized for the temporary easement.
  - The After-Action Report format is being reviewed.
  - The Standard Operation Procedure (SOP) and MOU are being reviewed by DOD.
- Agat-Santa Rita WWTP
  - Compensation for the Agat-Santa Rita easement is still under discussion. Waiting on Navy Real Estate
- Date Sharing MOU has been drafted – under review and comment

- This MOU will outline the standards for GIS, hydraulic and other data to be shared between DOD and GWA.

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	79	2	9	3	97.8%



Status Information

- 2 items delayed
  - Meters
  - Baza Gardens Sewer Line
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
  - 06/18/2018 - Tun Jesus Crisostomo St., Tamuning; MH OF -- FOG
  - 06/25/2018 - BOH Marine Corps Dr., Tamuning; MH OF -- FOG
  - 06/27/2018 - Aga Dr., Santa Rita; sewer overflow -- debris aggravated by FOG
  - 06/27/2018 - Chagamin Lago St., Inarajan; sewer overflow -- Control problems
  - 06/30/2018 - Ypao Rd., Tamuning; manhole over flow -- rocks and misc. debris aggravated by FOG
  - 07/03/2018 - Dairy Pump Station -- Control Problem
  - 07/05/2018 - Vietnam Veterans Highway; ATS failure, generator not running - generator manual start failed (no island power)
  - 07/05/2018 - Mamajanao Pump Station; ATS failure, generator not running (no island power)
  - 07/05/2018 - Alupang Sunset Condo, Tamuning; FOG
  - 07/06/2018 - Sereno Ave., Tamuning; rags and debris
  - 07/05/2018 - Route 1, Marine Corp Drive, Asan; control problems due to storm related issues
  - 07/06/2018 - Route 2, Agat; Sewer main break, Contractor damage to GWA sewer
  - 07/06/2018 - Chagamin Lago, Inarajan; sewer overflow - only one pump in a two-pump station, couldn't keep up with heavy rain
  - 07/08/2018 - Umatac-Merizo WWTP; Lower Lagoon (Bypass - ongoing) -- Heavy rainfall

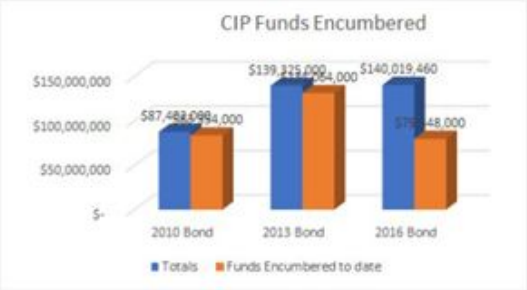
CIP Summary

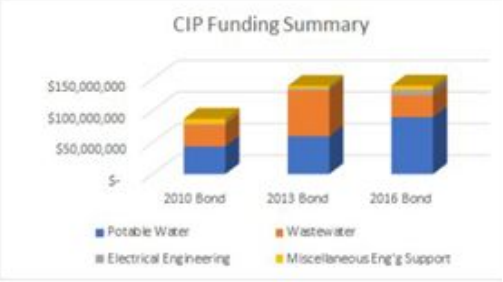
CIP Summary - Project Encumbrance

	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%
Totals	51	35	37	12	37	2	71	100%
% 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%
Totals	$ 87,402,000	100%	$ 139,325,000	100%	$ 140,019,460	100%	$ 366,746,460	100%
Funds Encumbered to date	$ 83,354,000	95%	$ 131,064,000	94%	$ 79,548,000	57%		
% of Total CIP Funding	23.8%		38.0%		38.2%			





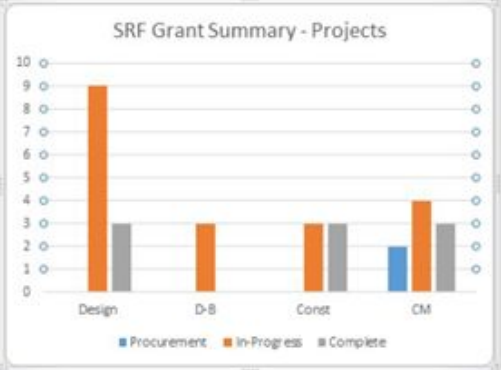
SRF Grant Summary

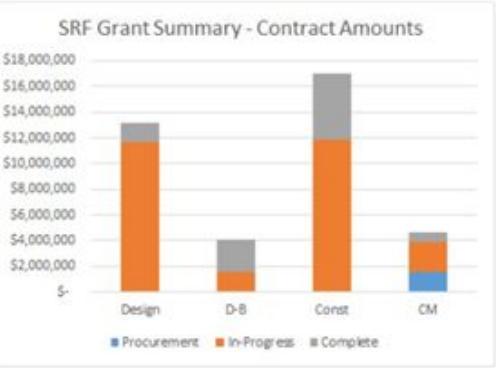
SRF Grant Summary - Projects

	Procurement	In-Progress	Complete	Totals	%
Design	0	9	3	12	40%
D-B	0	3		3	10%
Const	0	3	3	6	20%
CM	2	4	3	9	30%
Totals	2	19	9	30	
%	7%	63%	30%		

SRF Grant Summary - Contract Amounts

	Procurement	In-Progress	Complete	Totals	%
Design	$ -	$ 11,642,195	1,499,418	$ 13,141,613	34%
D-B	$ -	$ 1,542,979	$ 2,565,237	$ 4,108,216	11%
Const		$ 11,902,506	$ 5,086,129	$ 16,988,635	44%
CM	$ 1,572,000	$ 2,303,747	$ 802,243	$ 4,677,990	12%
Totals	$ 1,572,000	$ 27,391,427	$ 9,953,027	$ 38,916,454	
%	4%	70%	26%		





OEA Grant Summary

- NDWWTP Upgrades
  - 60% design submittal scheduled for Sep 24th.
  - Sitework bid package to be issued Sep 12th
  - Vertical bid package planned for issuance Mar 2019

- Outfall Diffuser:
  - Re-bid package under review by GWA
  - To be advertised by end of July
  - Bids expected in September

- Sewer Line Interceptor Design-Build
  - Contract Award / NTP pending insurance requirements
  - Design and prep work is set to start
  - Construction start expected in January

- NGLA Observation wells – Design work completed
  - Bid package drawings and specs under review by GWA
  - Permitting issues being resolved and permits being obtained by PM/CM
  - Bid package to be issued once permits approved – expected in Mar 2019

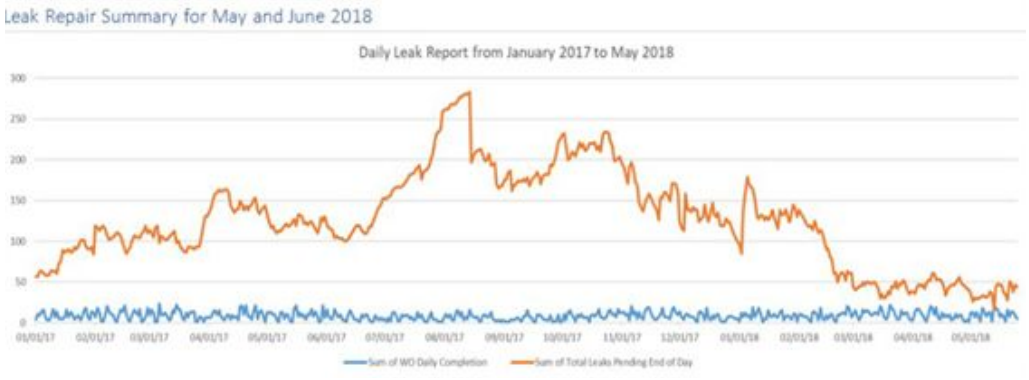
Action Item	Date (Target)	Date (Actual)	Status	Remarks
Project Funds Available	July-16	AUG-30-16	Completed	
Land Acquisition	Jan-17	Jan-17 (Compensation Pending)	Pending	Survey complete, appraisals complete – under review
Procure PM/CM Firm	Jan-17	Jan-17 (NTP Issued Feb 10th)	Completed	
Procure Design Firm	Jul-17		Completed	Contract issued; kickoff pending
Design -- 30/60/90/Final -- Review	Jun-18	30% - completed May 60% - expected Sep	On-target	Project design schedule has been revised / delayed
NEPA Analysis and Determination	Feb-17	Pending final SHPO concurrence	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

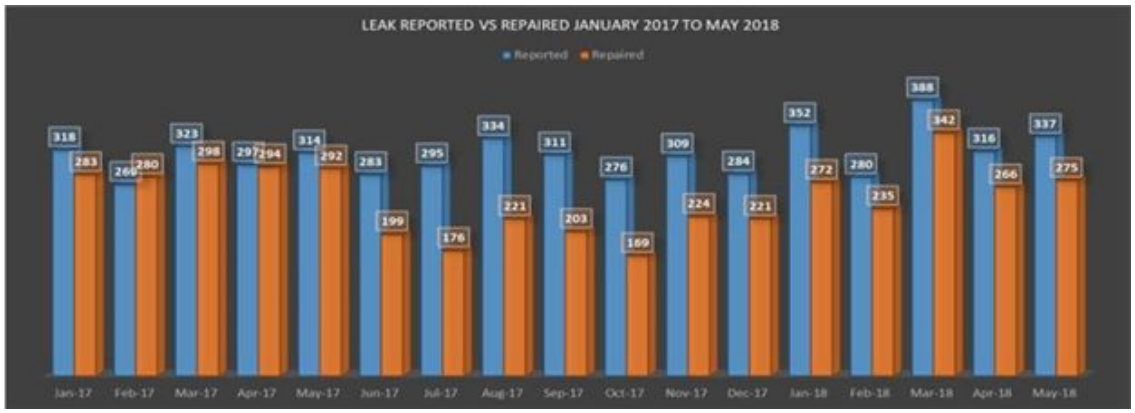
GWA Facility	Location	Gov't./Private/Other	Land Acquisition Status
Tanks	Ugum	Private	Appraisal Services completed 05/09/18.
	Astumbo	Gov't./CLTC	GWA and DoLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DoLM.
	Piti	Private	Preliminary geotechnical investigation and archaeological investigation in the process 05/01/18.
Expansion of the Northern District Wastewater Treatment Plant (NDWWTP)	Dededo	Gov't./GALC	Pending Grant Deed approval from GALC 07/09/18.
Deep Well	A-12	Private	Property ownership vested in GWA 10/16/17.
	AG-12	Dept. of Agriculture/Manhita Farms	Land Registration has been approved by Superior Court of Guam. Pending release and recordation of the Decree Establishing Title at DoLM. DCA will be submitting Retracement Survey Check Print Map to DoLM for review and comments 07/13/18.
	Y-8	Gov't./CLTC	Deed of Dedication approved by legal counsel 07/03/18.
Booster Pump Station	Agfayan	Private	Denial Letter received from private property owner on Lot 61-R2, Inarajan - 06/07/18. Pending response from CLTC on L28, B19, T3734, Inarajan - 07/09/18.
Sewer Pump Stations	Property adjacent to Southern Link	Private	GWA started acquisition process on 12/23/2016. Property ownership vested in GWA 08/11/2017.
Asan Springs	Asan	Gov't./Private	GWA request for land acquisition to be reviewed and approved by GHURA board 06/29/18. LA Bobbie Cruz to send follow-up to GHURA 07/19/2018. Package submitted to DOI for portion of land from Park Service.

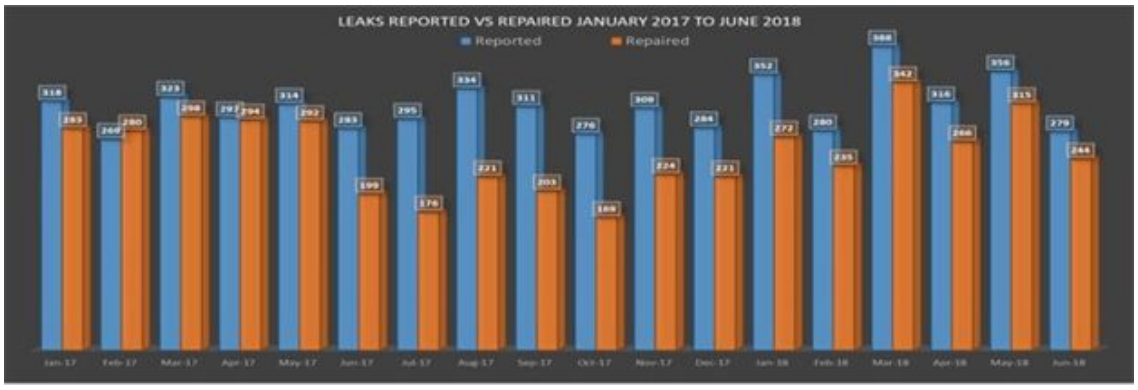
NRW – Update

- Water Loss Control Program activities are on-going
    - Latest water audit results reviewed by Technical Consultant under EPA grant. Scope modifications being proposed for Consultant due to GWA's progress on refining audit results
    - Production meter replacement program is under design for 65 well sites. Portable flow meter is being procured to calibrate existing meters.
    - District Metering Areas are currently being developed for pilot project. Locations have been identified. Grant application was submitted for this pilot project
    - DOI Grant application has been approved for training and equipment.

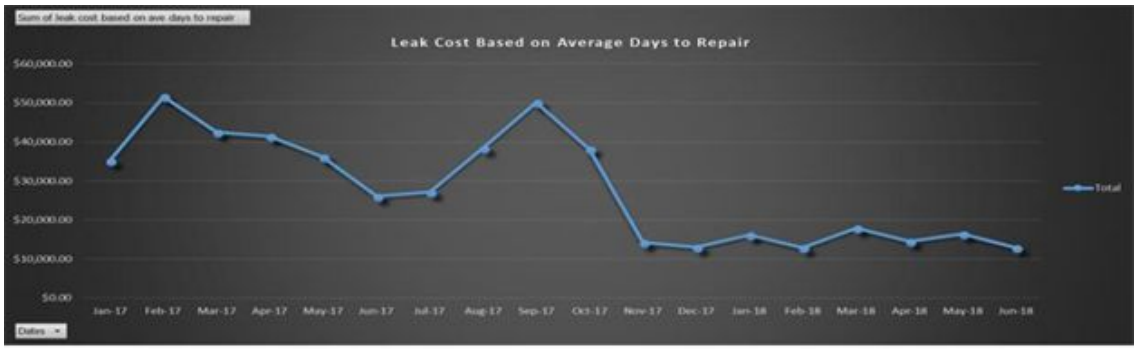



June 2017 to June 2018 WO Daily Completion VS Total Leaks Pending End of Day


LEAK REPORTED VS REPAIRED JANUARY 2017 TO MAY 2018
Reported
Repaired
318
283
269
280
323
298
297
294
314
292
283
199
295
176
334
221
311
203
276
169
309
224
284
221
352
272
280
235
388
342
316
266
337
275
Jan-17
Feb-17
Mar-17
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
Apr-18
May-18


LEAKS REPORTED VS REPAIRED JANUARY 2017 TO JUNE 2018
Reported
Repaired


Monthly leak Report Cost From February to May 2018



Assumptions:

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

5.1.2 Financials –This matter was not discussed in detail.

5.1.3 Resolution 38-FY2018 / GPA Resolution 2018-014 IT Policy Initiatives

This resolution was discussed under Section 4.2.3 above.

For the record, Comm. Bamba motioned to approve Resolution 38-FY2018; second by Comm. Guthertz. The vote passed unanimously.

5.1.4 Resolution 39-FY2018 Creation of Utility Laboratory Technician Series of Positions

The Guam Waterworks Authority (GWA) has determined a need to update the job standards for Laboratory Technician series positions to efficiently and effectively perform duties and functions of the GWA's Laboratory section. The creation of these positions is necessary to help direct and manage GWA's wide sampling activities in connection with water and wastewater operations.

The job specifications currently being utilized by GWA was initially created for use at the Government of Guam's line departments and agencies, established in 1980. Furthermore, the existing job standards are inconsistent with the updated and current operating procedures and practices of our laboratory technicians. GWA Laboratory technicians are unique in duties and responsibilities compared to other government of Guam agencies.

GWA laboratory technicians collect samples from shorelines, wastewater treatment plants, rivers, production wells, water treatment facilities and various locations within our distribution system and analyze water samples for various physical and chemical constituents (Calcium and Total Hardness, Chlorides, Alkalinity, Conductivity, pH, Temperature, Turbidity and Bacteria content) which makes it unique from other government of Guam agencies.

The Utility Laboratory Technician series will be organizationally located within the Compliance and Safety Department, under the direction of the Monitoring Laboratory Services Administrator.There is no cost to create positions. Upon approval of the proposed positions, GWA HR will conduct a classification review of the existing staff to ensure appropriate classification of the positions considered for approval. There will be no impact on the slotting to the updated implementation ranges based on the 10th market percentile (2017 market data) approved by the CCU.

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

Comm. Bamba motioned to approve Resolution 39-FY2018; second by Comm. Guthertz. There was no further discussion or objection and the motion passed unanimously.

5.1.5 Resolution 40-FY2018 Contract Approval Route 4 Relief Sewer Line Rehabilitation & Replacement Proj

The objective of this USEPA SRF project is to improve the sewer collection system, which included repairing and/or replacing sewer manholes and over 4,200 linear feet of gravity sewer line along Route 4 and Route 1 in the village of Hagatna (from the area in front of Vons Chicken in Agana to the Agana Main Pump Station). These sewer infrastructure elements have been identified by GWA, through an SSES investigation, to be subjected to either inactivity due to incomplete construction work or excessive infiltration and inflow (I&I). Successful completion of this project will result in proper maintenance and operation of the sewer collection system and USEPA agree that efforts to rehabilitate, repair or replace the sewer line are necessary.

The Invitation to Re-bid (IFB-04-ENG-2018) for the Route 4 Relief Sewer Line Rehabilitation and Replacement was structured in a manner wherein GWA could potentially acquire two separate construction companies for the necessary work. As such a lowest responsible and responsive bid from ProPacific Builder Corporation for Schedule A was received at a total of Three Million Four Hundred Seven Thousand Eight Hundred Forty-Eight Dollars **(**$3,407,848.00). Furthermore, a lowest responsive and responsible service bid from Insituform Technologies, LLC for Schedule B was received at a total of Three Million Nine Hundred Ninety-Eight Thousand Six Hundred Eighty-Eight Dollars **(**$3,998,688.00). These contract amounts, which is primarily based on unit pricing, includes the furnishing of all labor, tools, equipment and materials, and government agency coordination needed to complete the sewer infrastructure replacement in the aforementioned locations.

GWA management is also seeking a ten percent (10%) contingency of the total contract amount of Three Hundred Forty Thousand Seven Hundred Eighty-Four Dollars and Eighty Cents **(**$340,784.80) for Schedule A and Three Hundred Ninety-Nine Thousand Eight Hundred Sixty-Eight Dollars and Eighty Cents **(**$399,868.80) for Schedule B, which brings the total authorized funding amount to a maximum of Eight Million One Hundred Forty-Seven Thousand One Hundred Eighty-Nine Dollars and Sixty Cents ($8,147,189.60) for the project. The funding for this project will be from USEPA SRF Grant Funds and, if necessary, GWA Bond funds and System Development Charge Fund applicable to the project intent.

The construction contract length of this project is 450 calendar days for Schedule A and 450 calendar days for Schedule B. Estimated completion of construction is end of 2019.

Comm. Bamba motioned to approve Resolution 40-FY2018 and was second by Comm. Guthertz. There was no further discussion or objection and the motion passed.

5.1.6 Resolution 41-FY2018 Relative to GovGuam Claim No. 2017-015.

This matter was discussed in executive session due to possible litigation.

6. ANNOUNCEMENTS

6.1 Next CCU Meeting

The Chairman announced that the next CCU meeting would be a work session for GWA on August 21, a work session for GPA on August 23 and the regular monthly CCU meeting on August 28.

He also announced that GWA Legal Counsel Kelly advised that there is a litigation matter for discussion in Executive Session; an affidavit was presented to support this action. The Chairman said that the meeting would resume in executive session after a 10-minute break. It was 7:14 p.m.

At 7:25p.m. the meeting was called back to order in Executive Session.

7. EXECUTIVE SESSION

7.1 Personnel Matter

This matter was discussed.

7.2 Litigation Matter

This matter was discussed.

The meeting was moved back to regular session at 8:05p.m. The Chairman announced that the meeting is now back to regular session and a motion was in order.

Comm. Sanchez moved to adopt the settlement described in Resolution 41-FY2018 as discussed in executive session in the amount of $28,819.72, second by Comm. Guthertz. There was no further discussion or objection and the motion passed.

8. ADJOURNMENT

With nothing further to discuss, the meeting adjourned at 8:07 p.m.

\\s\\
Bls

Attested:

_____	_____
JOSEPH T. DUENAS, Chairman	J. GEORGE BAMBA, Secretary

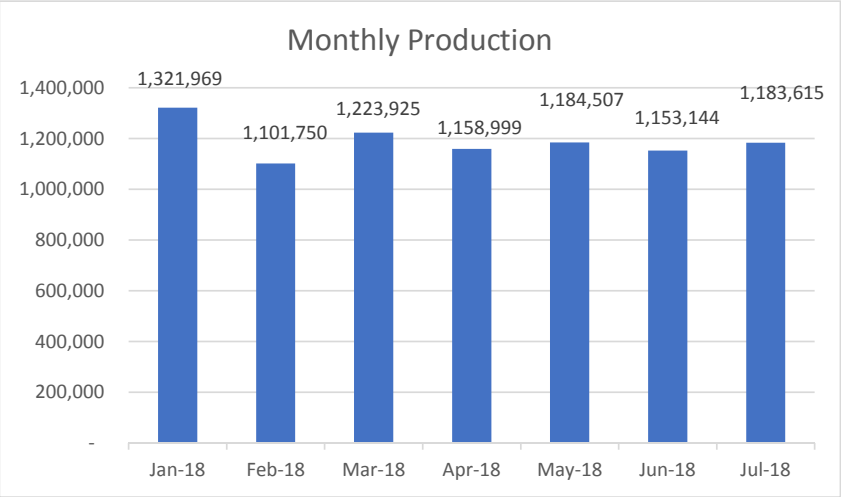
GUAM WATERWORKS AUTHORITY

General Manager's Report
CCU Board Meeting, August 28, 2018

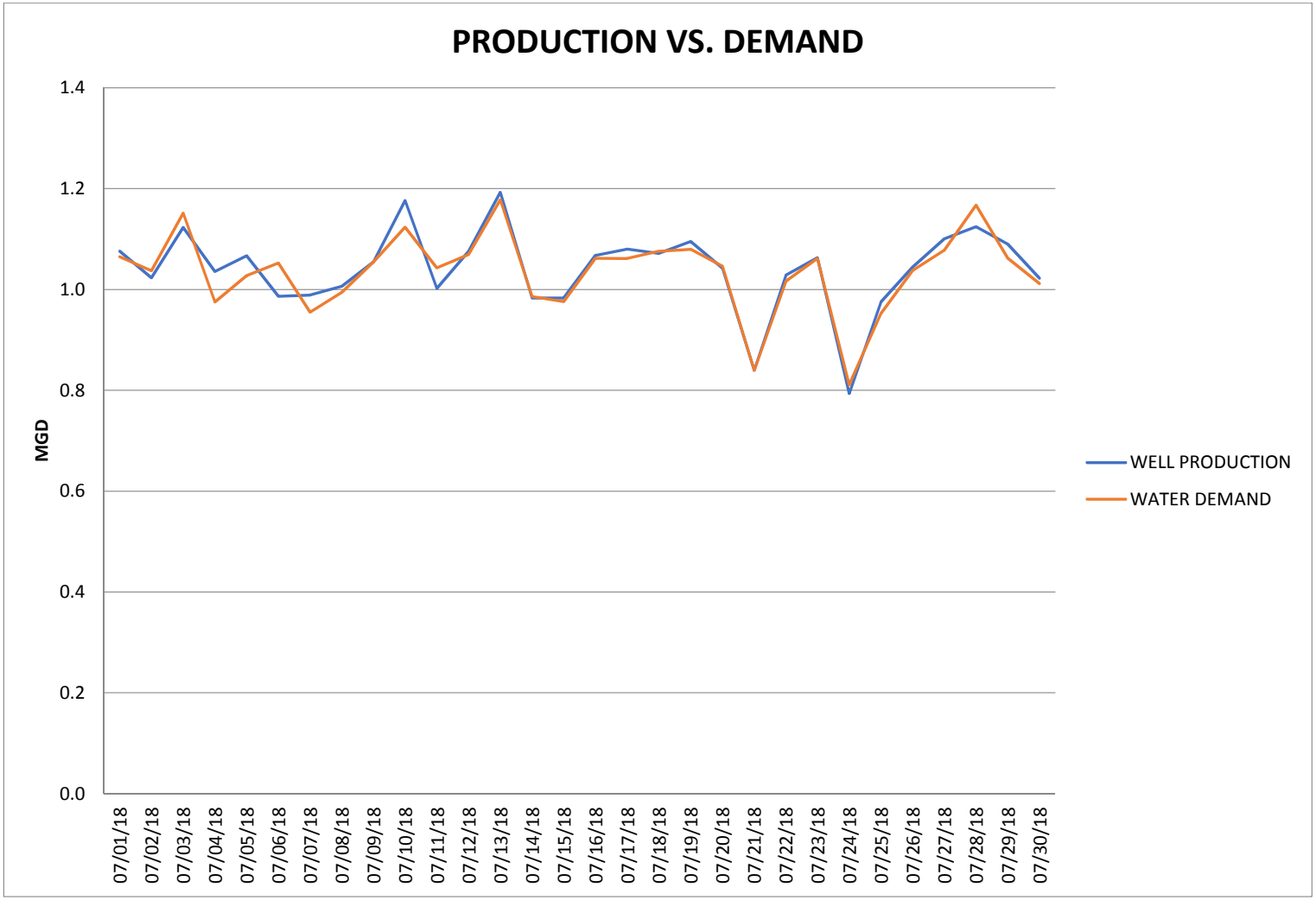
Operations Update

Production

Monthly Production Summary - July 2018					
Deep Wells				36.4	MGD
	Active wells =	95	of 120		
	Avg days in operation =	31	days		
	Total Production =	1,093,214	Kgals		
Springs				0.00	MGD
	Avg days in operation =	0	days	*placed on standby	
	Total Production =	0	Kgals		
Ugum Surface Water Plant				1.9	MGD
	Avg days in operation =	31	days		
	Total Production =	58,142	Kgals		
Tumon Maui Well				1.08	MGD
	Avg days in operation =	31	days		
	Total Production =	32,258	Kgals		
		1,183,615	Kgals	39.5	MGD

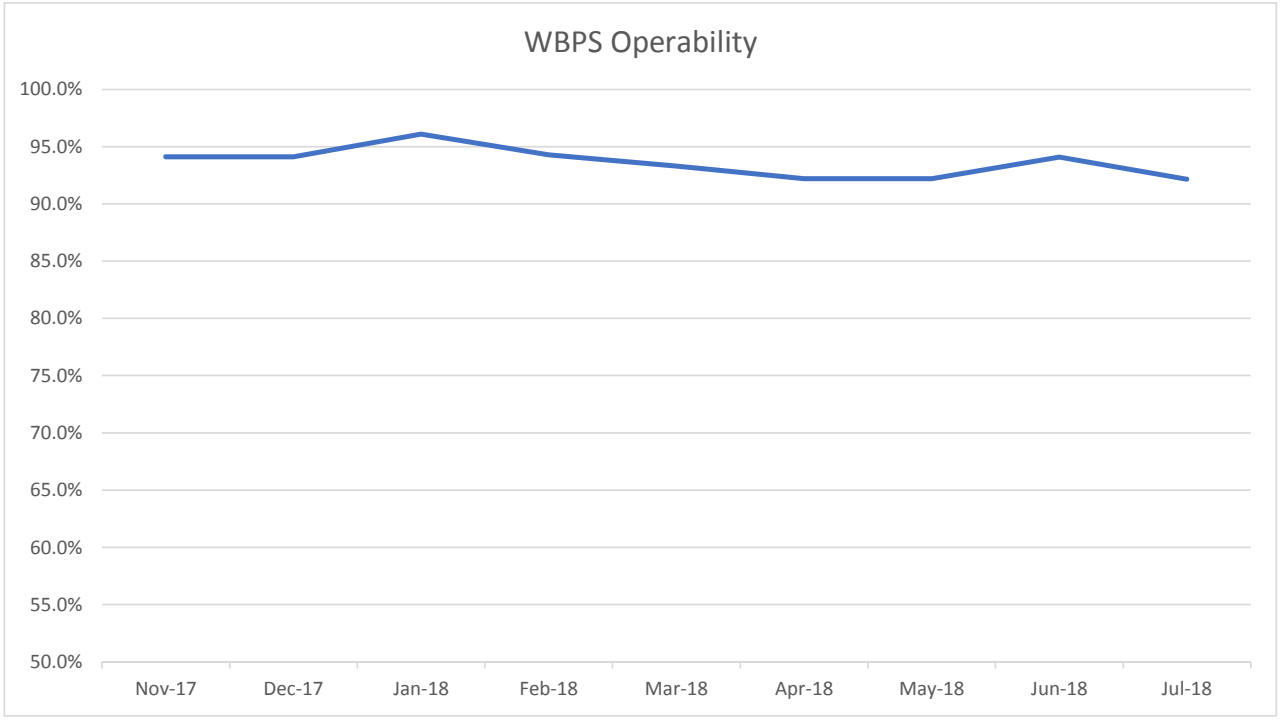


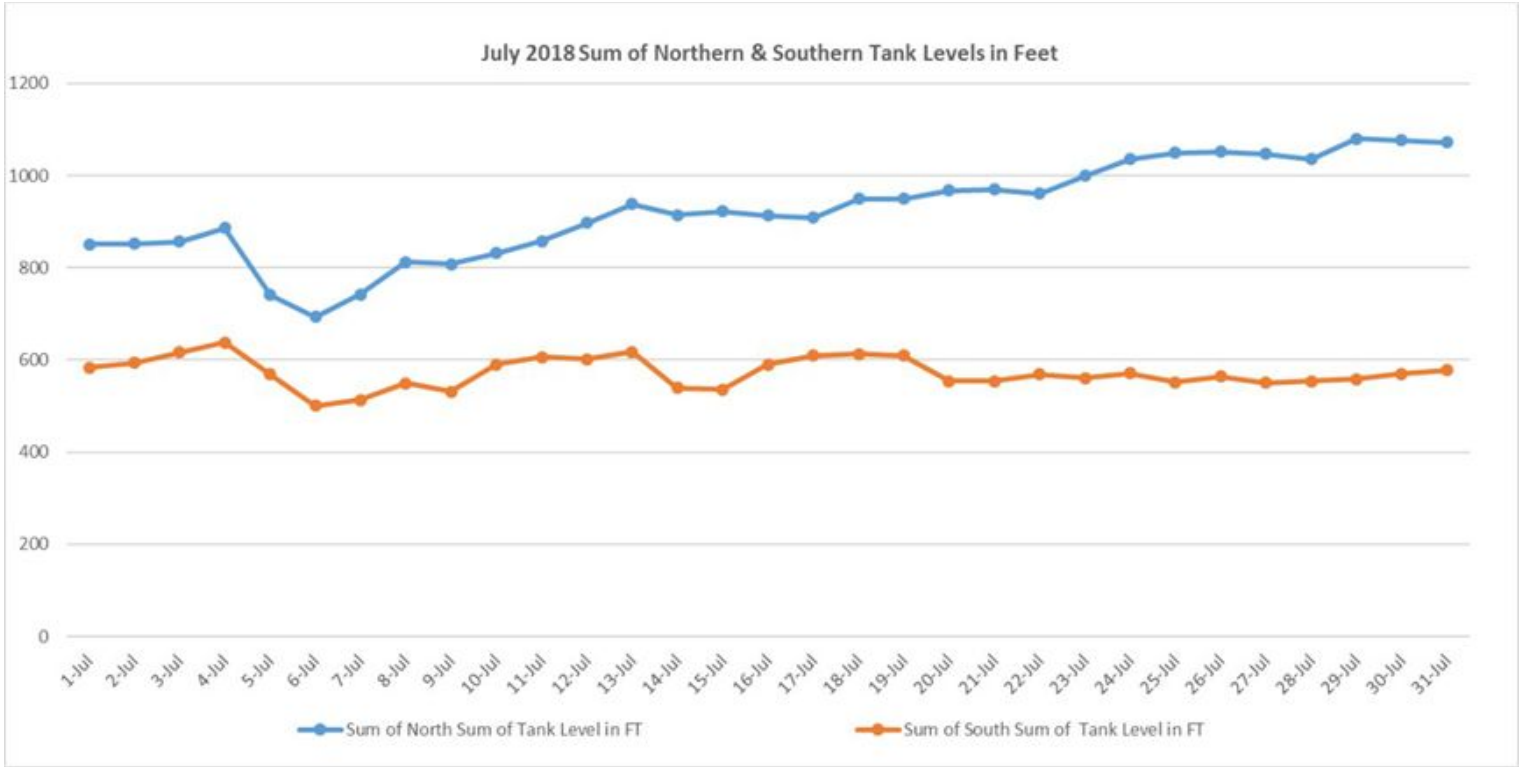
Tumon Maui Well Production vs. Demand for July 2018



Distribution

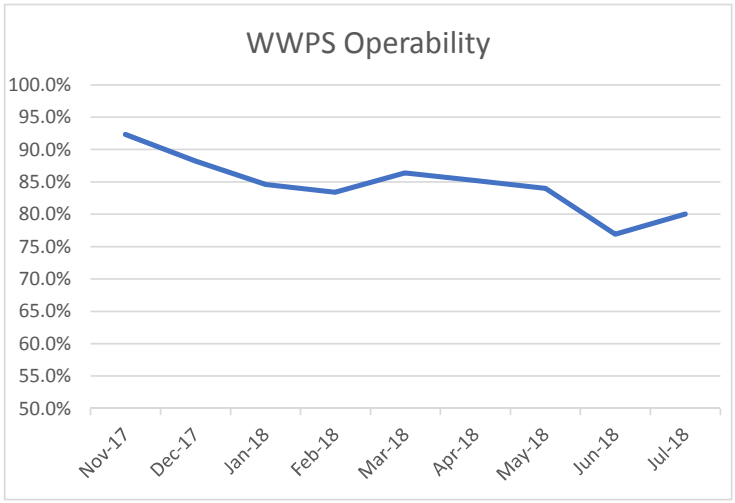
Monthly Distribution Summary - July 2018					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	21	19	90.5%
	Central	7	15	13	86.7%
	Southern	7	15	15	100.0%
		25	51	47	92.2%

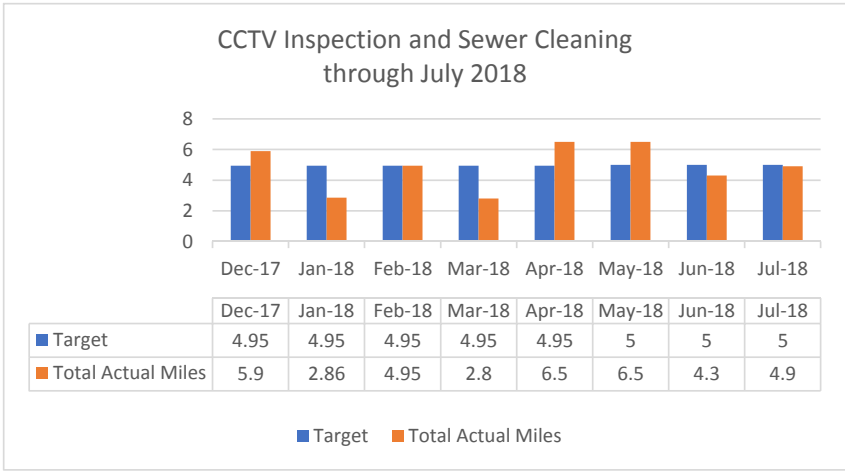



July 2018 Sum of Northern & Southern Tank Levels in Feet
1200
1000
800
600
400
200
0
1-Jul
2-Jul
3-Jul
4-Jul
5-Jul
6-Jul
7-Jul
8-Jul
9-Jul
10-Jul
11-Jul
12-Jul
13-Jul
14-Jul
15-Jul
16-Jul
17-Jul
18-Jul
19-Jul
20-Jul
21-Jul
22-Jul
23-Jul
24-Jul
25-Jul
26-Jul
27-Jul
28-Jul
29-Jul
30-Jul
31-Jul
Sum of North Sum of Tank Level in FT
Sum of South Sum of Tank Level in FT

Wastewater Collections

Monthly Collections Summary - July 2018					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	43	82.7%
	Central	29	63	48	76.2%
	Southern	27	55	45	81.8%
		78	170	136	80.0%

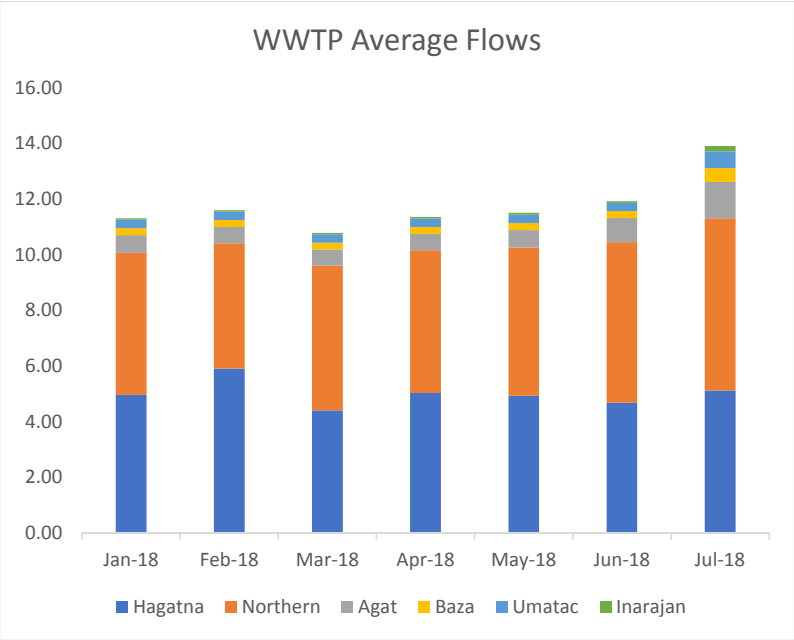




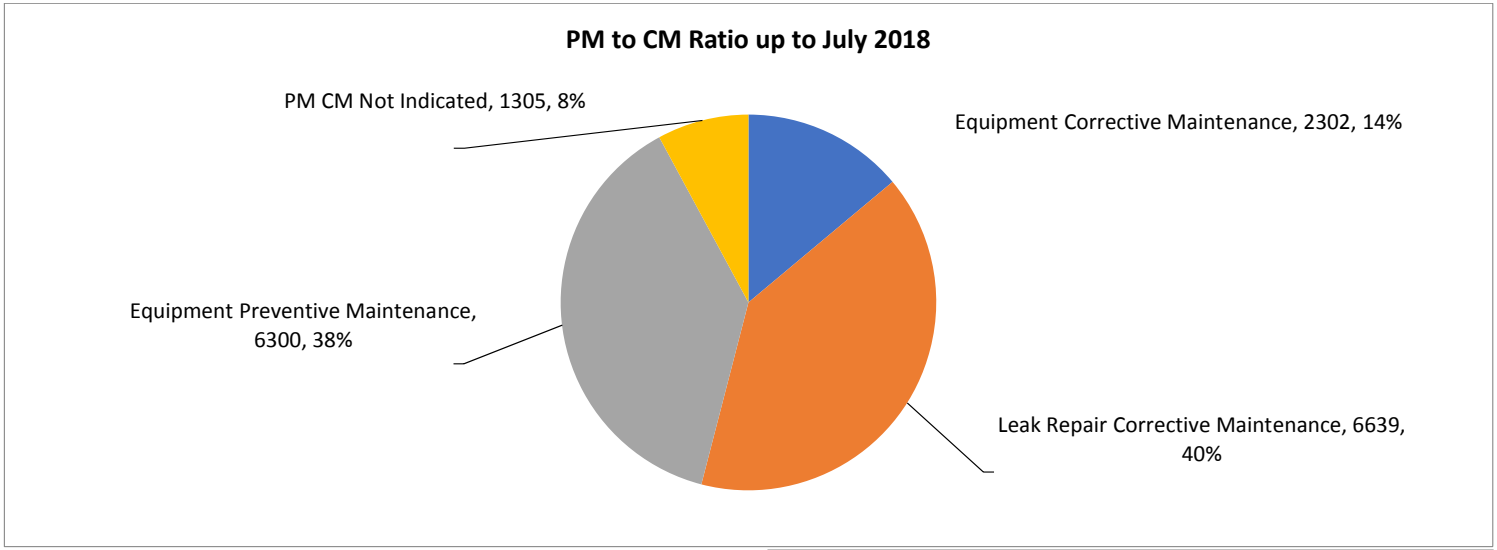
	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18
Target	4.95	4.95	4.95	4.95	4.95	5	5	5
Total Actual Miles	5.9	2.86	4.95	2.8	6.5	6.5	4.3	4.9

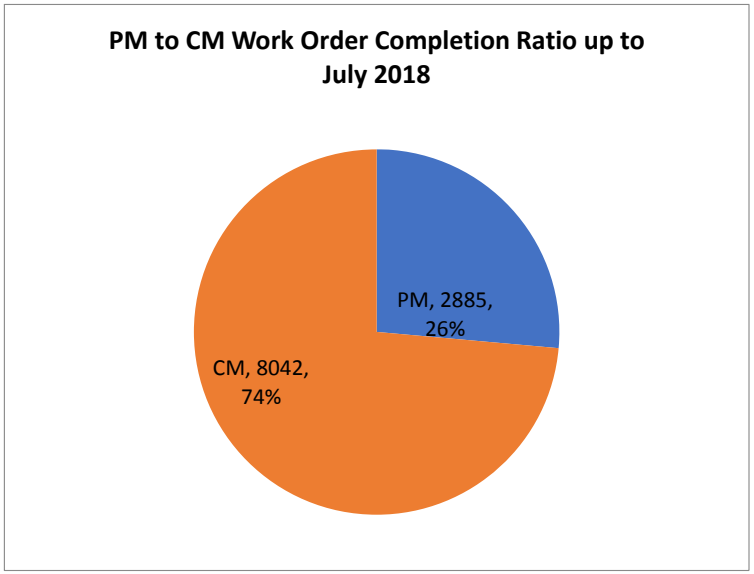
Wastewater Treatment

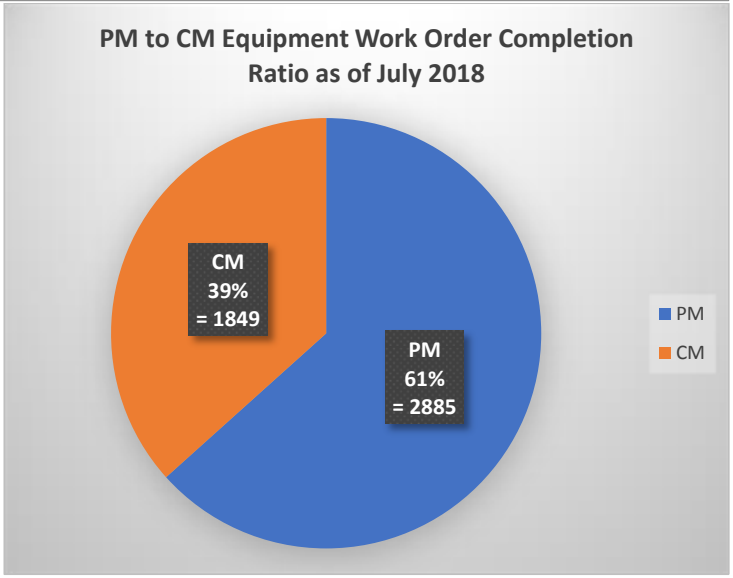
Monthly Wastewater Treatment Summary - July 2018					
WW Treatment Plants - Flows					
	Facility	**Avg. Daily Flows (MGD)**	**Sludge (lbs)**	**Sludge Disp. ($)**	
	Hagatna	5.12	596,520	$	53,687
	Northern	6.18	856,274	$	77,065
	Agat	1.31			
	Baza	0.50			
	Umatac	0.60			
	Inarajan	0.19			
		13.90	1,452,794	$	130,751



Asset Management for July 2018







Operational Issues

Production & Distribution

- Leak repair
  - Crews maintaining performance - As of July 31st, there were less than 24 pending repairs
    - 92% reduction from 2017-2018 Maximum of 283 pending
    - 87% reduction from 2018 Maximum of 179 pending
  - IFB for advanced remote leak detection services has been advertised
- WSCC –
  - SCADA equipment and installation requirements on-going
  - Have been coordinating the activation of new Yigo / Astumbo tanks
  - Reservoir levels have been steadily increasing
  - Deep wells placed on standby has increased to 10 (and 11 units out-of-commission).
- Pump and motor inventories okay; additional procurement up for CCU approval
- GWA Crane Repair –new cable installation complete – load test 8/22/18

Wastewater Collection & Treatment

- CCTV & Collections System:
  - Planning department assisting CCTV Crews to revise completed reports to meet appropriate industry standards
  - SSES and CCTV-based repairs to collection lines (95%) and SMHs (10%) are being conducted by Ops personnel
- Pump stations
  - Working to address pump operability issues
  - Minimum pump and motor inventory levels finalized (similar to effort with deep-wells)
  - Engineering providing support for specifications and performance points on all pumps prior to finalizing procurement
  - Critical spares and replacements procurement on-going
- Treatment Plants
  - Hagatna WWTP
    - Centrifuges: New PLC installed; programming on-going.
  - Northern WWTP
    - Both centrifuges back in operation
  - Agat-Santa Rita WWTP
    - Solids process commissioning completion pending – centrifuge #2
    - Critical process facilities all operating
  - U-M WWTP
    - Work on-going at the site

- Significant delays have occurred because of USF&W / EPA permitting issues

- Baza Gardens
  - Work on-going for all 3 phases
  - Anticipated completion is now Sep 30th
  - Delay letter has been sent to USEPA

Meters for month of July 2018

COMPLETED FIELD ACTIVITY JAN 2017 THRU JULY 2018 (POSTED IN CIS)	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	#####	Jun-18	Jul-18	TOTAL:	COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	745	87	393	743	1000	1007	434	378	750	969	1213	1429	84	1299	797	11747	665
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	452	259	239	1086	2120	121	121	1056	1248	12478	501
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	82	169	356	106	117	69	13	2	2	2875	0
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	127	612	858	1122	1055	463	19	5	3	5882	0
TOTAL:	453	312	343	743	1360	878	1351	2237	3733	2337	1095	1418	2203	3283	4505	2082	237	2362	2050	32982	1166

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	144	252	305	210	302	397	1013	1130	927	704	721	1041	1347	815	671	544	1159	12377	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	122	84	29	111	219	80	77	4	136	23	323	48	75	20	30	1401	$ 928,379.83

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

AS OF JULY 30 2018

ACTIVE LP MODELS - PURCHASE MO & YEAR	COUNT	
2012	8807	WARRANTY EXPIRED
Jan-13	2112	
Feb-13	731	
Mar-13	632	
May-13	1435	
Aug-13	752	ACTIVE WARRANTY
Feb-14	425	
Mar-14	1	
Apr-14	2418	
Jun-14	72	
Aug-14	1388	
TOTAL :	18773	

13717	WARRANTY EXPIRED
5056	ACTIVE WARRANTY

Marbo (Andy-South) Wells – Status

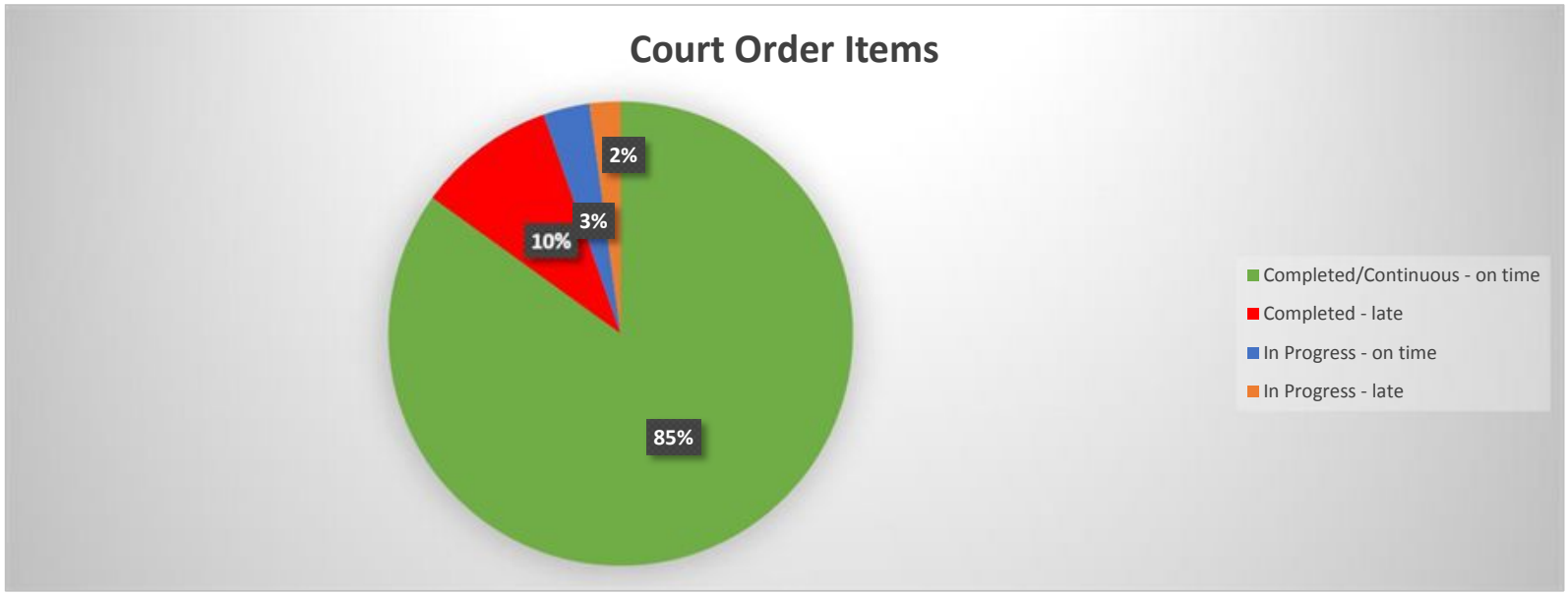
- Involuntary reversion appears imminent; GWA Counsel transmitted draft easement documents to GSA for consideration with DoD;
- No updates - Waiting on response from GSA
- Meeting requested by GWA for October 2018

One Guam Update

- Tumon Maui Well:
  - Quarterly Inspection conducted – no issues of concern.
- Santa Rosa Tank:
  - The temporary easement for the construction of the intertie is in progress. As soon as the maps are finalized, Navy will discuss the project with the Air Force
  - Navy Utilities prepared a briefing package for a meeting with the NAVFACMAR CO – Captain Dan Turner. He is on board and will brief the General at Andersen Air Force Base, but it may take 3 weeks to set the meeting
- Agat-Santa Rita WWTP
  - Maria Lewis stated the fee of $16k per annum in the Agat easement letter to GWA was supposed to be a one-time fee so the letter will be changed
  - The Grant of Easement will be amended to state Wastewater & Water
- OEA Projects
  - Observation Well coordination on-going;
  - Discussion on ownership of wells and maintenance responsibilities on going; MOU will be prepared to address maintenance cost sharing
- Training and Collaboration
  - GWA witnessed Navy "Smart Sahara" demonstration for Route 16 waterline: CCTV and sonic analysis for water pipes and leak detection
  - GWA offering CIPP training; DoD and their operators will be attending the training

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	79	2	9	3	97.8%



Status Information

- 2 items delayed
  - Meters
  - Baza Gardens Sewer Line
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
  - 07-26-18 RT-16 Tsai Building sewer back up – FOG – major – 10,000 gallons (90% recovered by GWA Operations)
  - 07-27-2018-Umatac Lower Lagoon Bypass (from 07/08/2018) Ends (2.4 MG bypassed – I&I – Weather Related)
  - 08-13-2018, Alupang street, Tamuning, MH overflow -- Rain
  - 08-16-2018, Rt Vietnam Veterans Highway, MH overflow - Rain
  - 08-16-2018, Umatac-Merizo PS 17 overflow - Rain
  - 08-16-2018, Umatac-Merizo Lagoon starts overflowing again – Rain
  - 08-20-2018, Harmon Lift Station - Rain

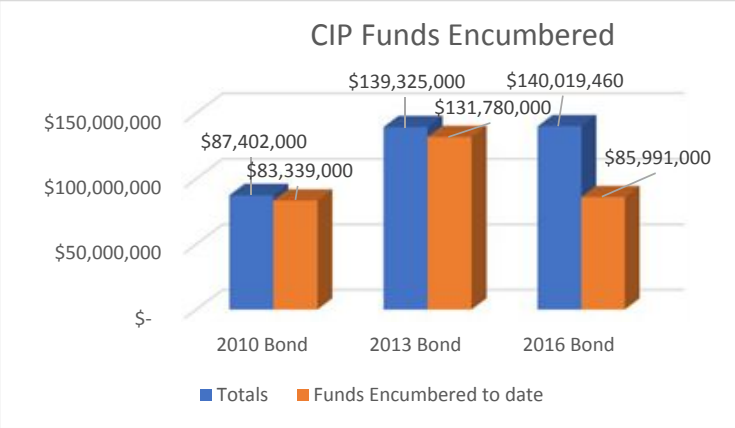
CIP Summary

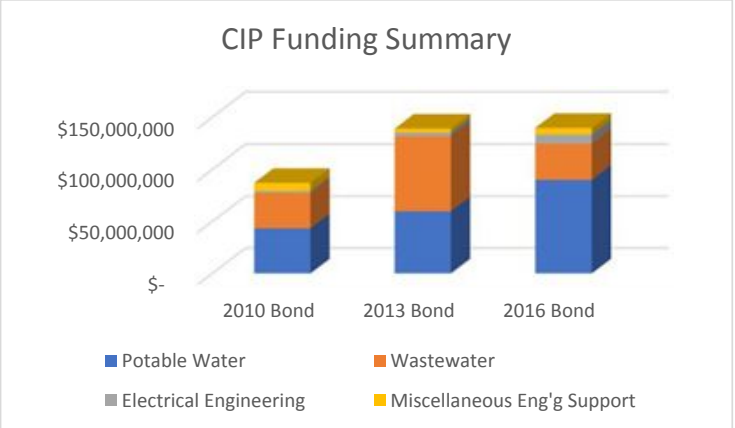
CIP Summary - Project Encumbrance

	2010 Bond		2013 Bond		2016 Bond			
	Funded	Complete	Funded	Complete	Funded	Complete	Total CIP Projects	%
Potable Water	28	17	21	8	20	1	35	49%
Wastewater	16	13	7	4	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%
Totals	51	35	37	14	37	3	71	100%
% of Total CIP by Fund Source	72%		52%		52%			

CIP Summary - Project Amounts

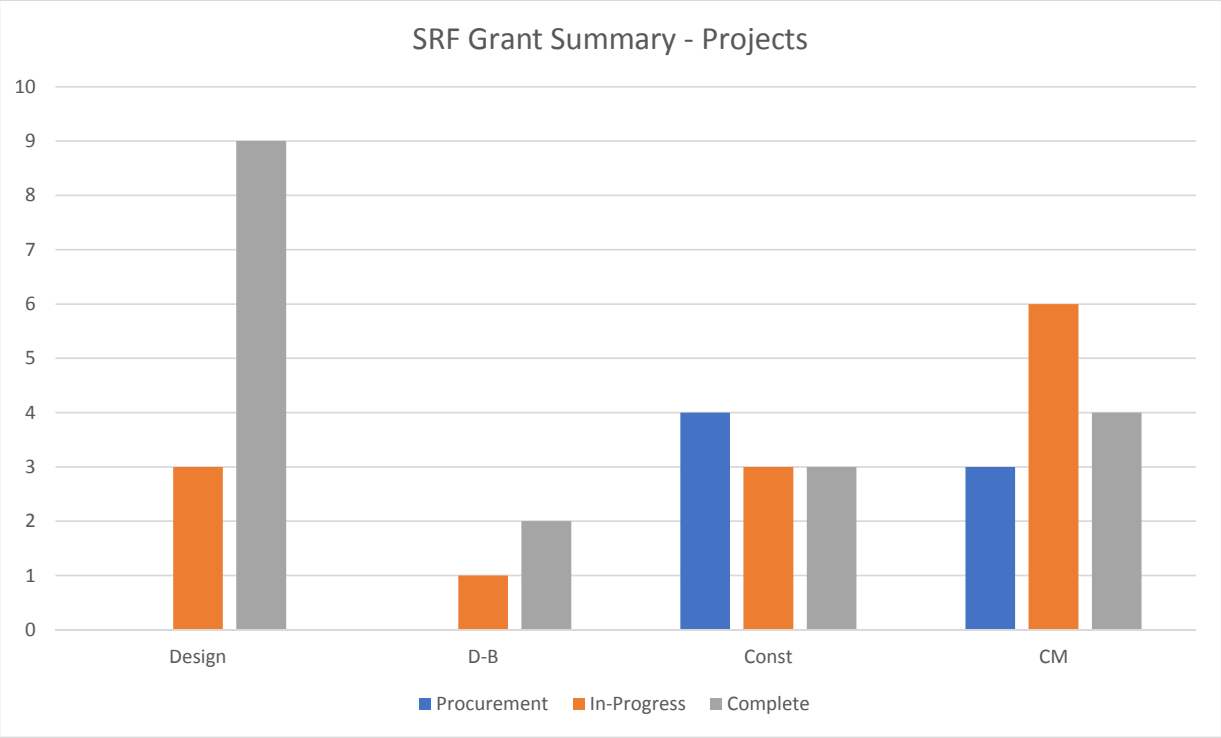
	2010 Bond		2013 Bond		2016 Bond			
	Funded	%	Funded	%	Funded	%	Total CIP Projects	%
Potable Water	$ 41,903,305	48%	$ 58,317,117	42%	$ 64,647,830	46%	$ 164,868,252	45%
Wastewater	$ 36,009,577	41%	$ 73,837,883	53%	$ 60,227,170	43%	$ 170,074,630	46%
Electrical Engineering	$ 1,748,118	2%	$ 3,395,000	2%	$ 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%
Totals	$ 87,402,000	100%	$ 139,325,000	100%	$ 140,019,460	100%	$ 366,746,460	100%
Funds Encumbered to date	$ 83,339,000	95%	$ 131,780,000	95%	$ 85,991,000	61%		
% of Total CIP Funding	23.8%		38.0%		38.2%			



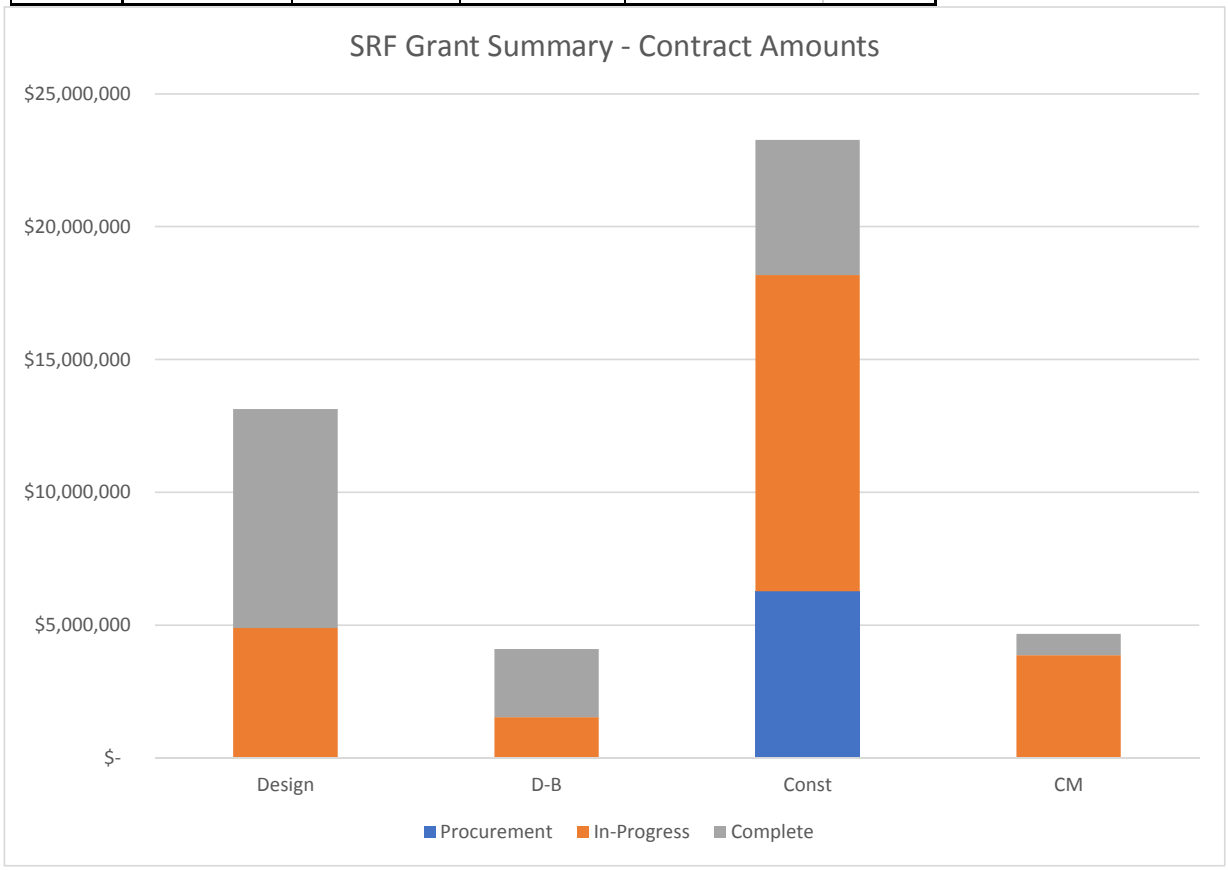


SRF Grant Summary

SRF Grant Summary - Projects					
	Procurement	**In-Progress**	**Complete**	**Totals**	**%**
Design	0	3	9	12	32%
D-B	0	1	2	3	8%
Const	4	3	3	10	26%
CM	3	6	4	13	34%
Totals	7	13	18	38	
%	18%	34%	47%		



SRF Grant Summary - Contract Amounts					
	Procurement	In-Progress	Complete	Totals	%
Design	$ -	$ 4,892,286	8,249,328	$ 13,141,614	29%
D-B	$ -	$ 1,542,979	$ 2,565,238	$ 4,108,217	9%
Const	$ 6,275,783	$ 11,902,507	$ 5,086,130	$ 23,264,420	51%
CM	$ -	$ 3,877,036	$ 802,243	$ 4,679,279	10%
Totals	$ 6,275,783	$ 22,214,808	$ 16,702,939	$ 45,193,530	
%	14%	49%	37%		



OEA Grant Summary

- NDWWTP Upgrades
  - 60% design submittal scheduled for Sep 24th.
  - Sitework bid package to be issued Sep 12th
  - Workshop on 60% Design – October 18th – 19th
  - Vertical bid package planned for issuance Mar 2019

- Outfall Diffuser:
  - Re-bid package issued
  - Pre-bid Conference August 22nd
  - Bids expected September 11th

- Sewer Line Interceptor Design-Build
  - Contract Award / NTP issued
  - Design and prep work have started
  - Design submittal expected in October
  - Construction start expected in January

- NGLA Observation wells – Design work completed
  - Bid package drawings and specs under review by GWA
  - Permitting issues being resolved and permits being obtained by PM/CM
  - Bid package to be issued once permits approved – expected in Mar 2019

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

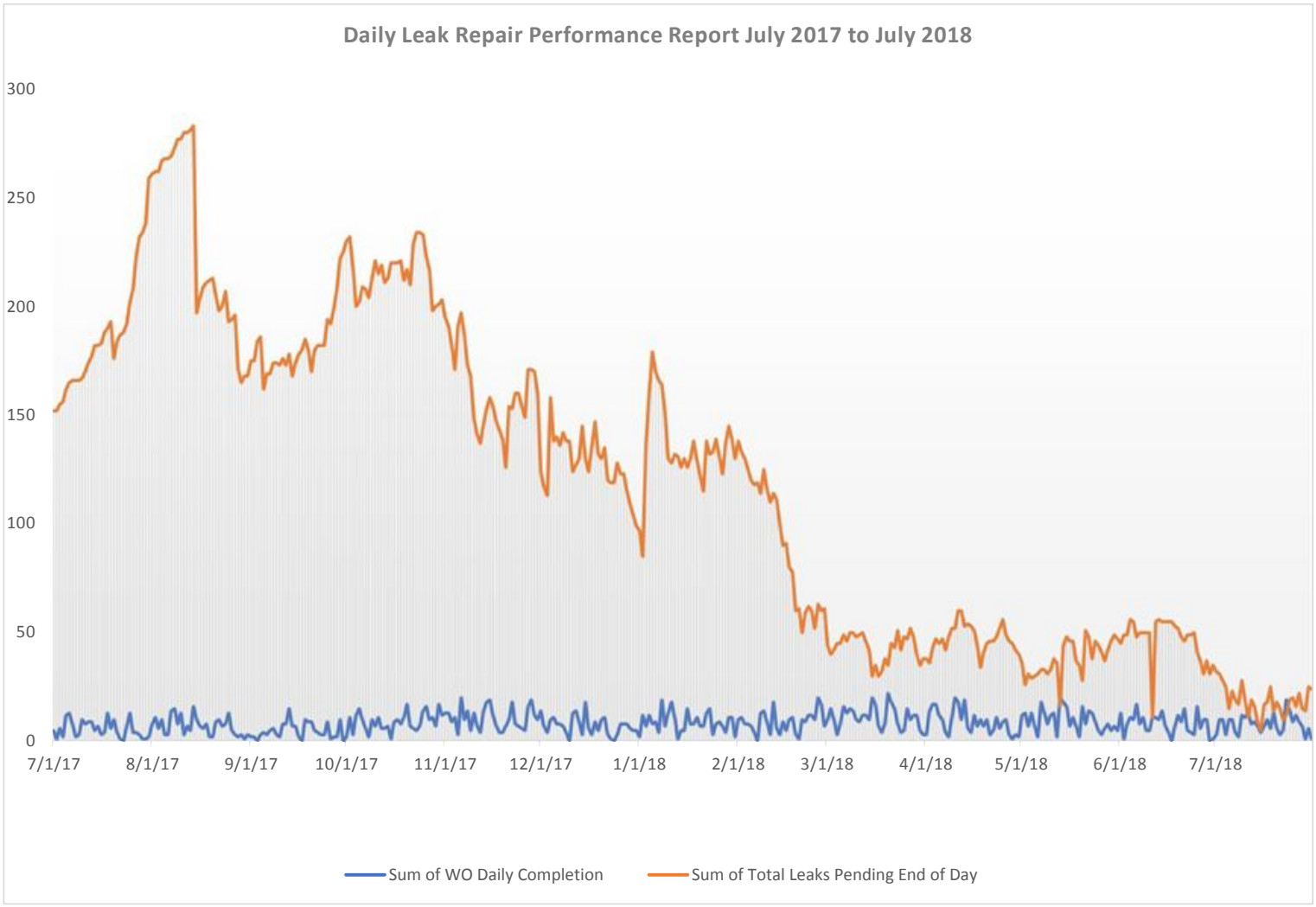
Land Acquisition Summary

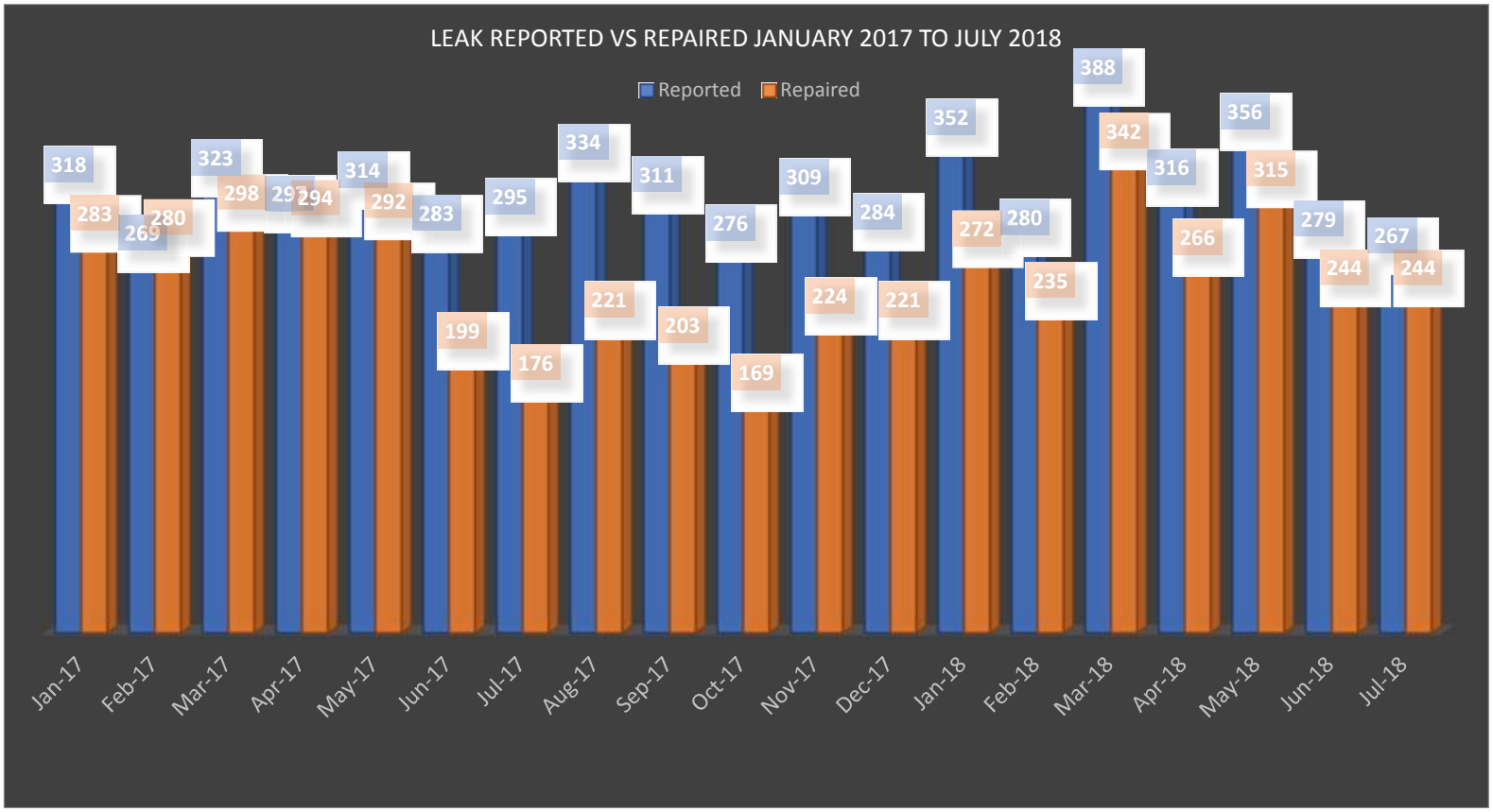
GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	Ugum	Private	Appraisal Services completed 05/09/18.
	Astumbo	Gov't. - CLTC	GWA and DLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DLM
	Piti	Private	Preliminary geotechnical investigation and archaeological investigation in the process 05/01/18
Expansion of the Northern District Wastewater Treatment Plant (NDWWTP)	Dededo	Gov't - GALC	Grant Deed submitted to DLM for AG & Governor signature 08/01/18
Deep Well	A-12	Private	Property ownership vested in GWA 10/16/17
	AG-12	Dept. of Agriculture/Manhita Farms	Land Registration has been approved by Superior Court of Guam. Pending release and recordation of the Decree Establishing Title at DLM. DCA will be submitting Retracement Survey Check Print Map to DLM for review and comments 07/13/18
	Y-8	Gov't. - CLTC	Deed of Dedication approved by legal counsel 07/03/18
Booster Pump Station	Agfayan	Private	Denial Letter received from private property owner on Lot 61-R2, Inarajan 06/07/18. Sent 2nd follow up request to DLM Director on request for authorization on archeological testing for L28, B19, T3734, Inarajan 08/13/18
Sewer Pump Stations	Southern Link SPS	Private	GWA started acquisition process on 12/23/2016. Property ownership vested in GWA 08/11/2017
Asan Springs	Asan	Gov't/Private	GWA request currently is still under GHURA management review 08/07/18

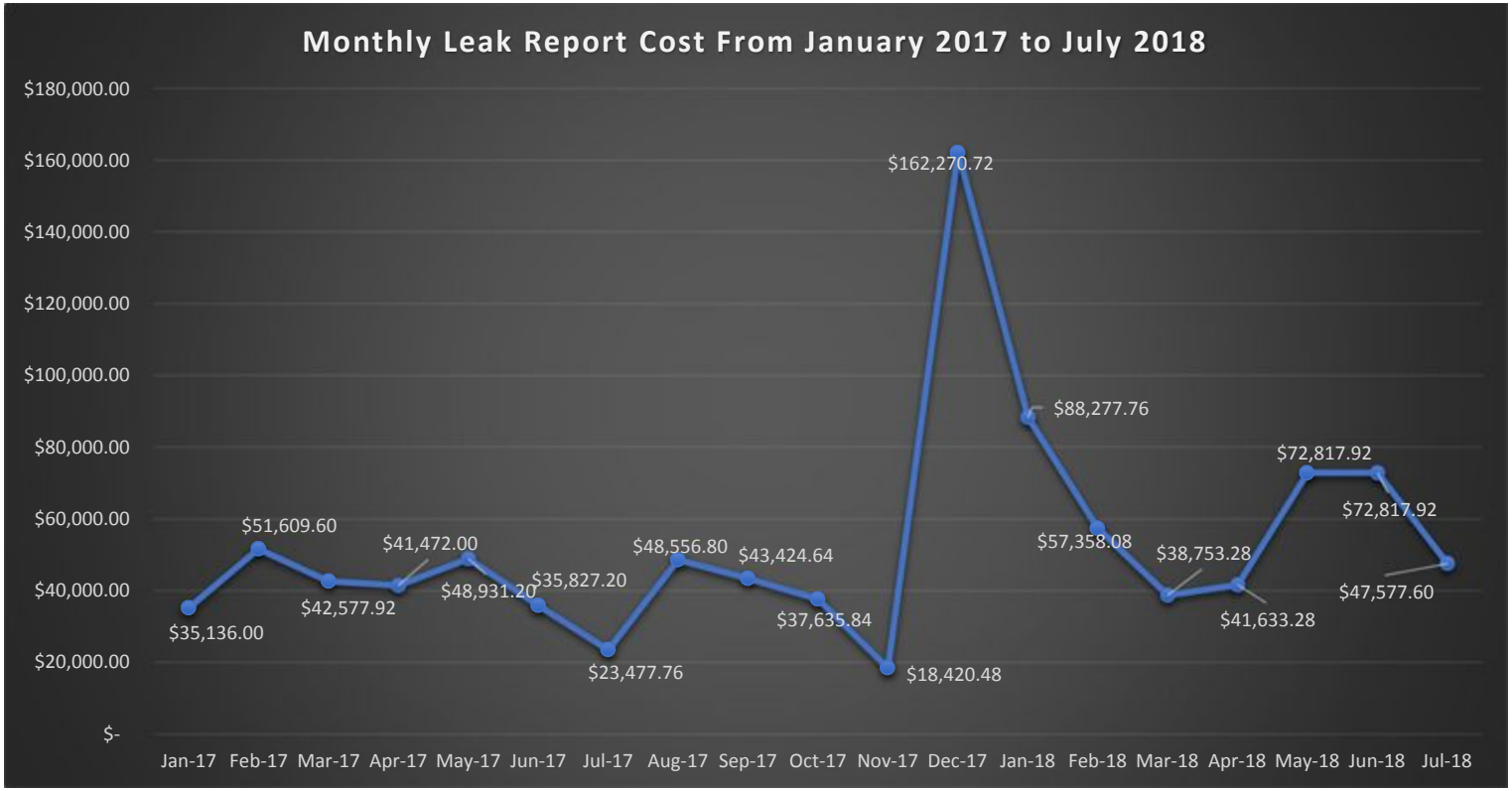
NRW – Update

- Water Loss Control Program activities are on-going
    - Review of latest numbers is underway.
    - Production meter replacement program is under design for 65 well sites. Portable flow meter is being procured to calibrate existing meters.
    - District Metering Areas are currently being developed for pilot project. Locations have been identified. Grant application was submitted for this pilot project
    - DOI Grant application has been approved for training and equipment.

Leak Repair Summary for July 2018




LEAK REPORTED VS REPAIRED JANUARY 2017 TO JULY 2018
Reported
Repaired
318
283
269
280
323
298
294
314
292
283
199
295
176
334
221
311
203
276
169
309
224
284
221
352
272
280
235
388
342
316
266
356
315
279
244
267
244
Jan-17
Feb-17
Mar-17
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18
Jul-18



Assumptions:

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

GUAM WATERWORKS AUTHORITY
JULY 31, 2018
FINANCIAL AND RELATED REPORTS
TABLE OF CONTENTS

	SCHEDULES	PAGE
BALANCE SHEET	A	2
INCOME STATEMENT MTD ACTUALS VS MTD BUDGET	B	3
INCOME STATEMENT MTD ACTUALS FY18 VS FY17	C	4
INCOME STATEMENT YTD ACTUALS VS YTD BUDGET	D	5
INCOME STATEMENT YTD ACTUALS FY18 VS FY17	E	6
BOND COMPLIANCE	F	7
SCHEDULE OF CASH RESTRICTED/UNRESTRICTED	G	8
STATEMENT OF CASH FLOWS	H	9
AGING REPORT - GOVERNMENT ACCOUNTS	I	10
SCHEDULE OF SERIES 2013 BOND STATUS	J	11
SCHEDULE OF SERIES 2014 REFUNDED BOND STATUS	K	12
SCHEDULE OF SERIES 2016 BOND STATUS	L	13
SCHEDULE OF SERIES 2017 REFUNDED BOND STATUS	M	14

GUAM WATERWORKS AUTHORITY
Balance Sheet
July 31, 2018

SCHEDULE A

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	Unaudited July 31, 2018	Audited September 30, 2017	Increase (Decrease)
Current Assets:			
Cash:			
Unrestricted (Schedule G)	1,844,859	4,873,275	(3,028,416)
Restricted Funds (Schedule G)	69,200,580	65,124,400	4,076,179
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of $13,716,031 at Jul 31, 2018 and $12,619,034 at Sep 30, 2017	15,729,788	15,450,733	279,055
Other Receivable	2,176,641	8,433,446	(6,256,804)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of $457,370 at Jul 31, 2018 and Sep 30, 2017	3,490,355	2,166,557	1,323,798
Total Current Assets	92,442,223	96,048,411	(3,606,188)
Property, Plant and Equipment			
Utility plant in service:			
Water system	334,789,099	327,484,191	7,304,908
Wastewater system	290,040,866	286,394,940	3,645,926
Non-utility property	19,115,656	18,938,255	177,401
Total property	643,945,621	632,817,387	11,128,235
Less Accumulated Depreciation	(301,315,079)	(286,043,580)	(15,271,499)
Land	1,163,298	1,110,998	52,300
Construction Work in Progress	173,679,989	111,695,887	61,984,103
Property, Plant and Equipment, net	517,473,829	459,580,691	57,893,138
Other noncurrent assets			
Restricted cash (Schedule G)	185,716,541	236,550,002	(50,833,461)
Investments (Schedule G)	37,779,974	41,042,038	(3,262,064)
Other Prepaid Expenses	1,000,616	551,128	449,487
Total other noncurrent assets	224,497,131	278,143,169	(53,646,038)
Total Assets	834,413,183	833,772,271	640,912
Deferred outflows of resources:			
Debt defeasance due to bond refunding	13,430,873	1,695,981	11,734,892
Deferred outflows from pension	4,940,338	4,943,777	(3,439)
Total Assets and Deferred Outflows of Resources	**852,784,394**	**840,412,029**	**12,372,365**
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET ASSETS			
Current Liabilities:			
Current maturities of long-term debt			
-Series 2010 Bond	1,800,000	1,725,000	75,000
-Series 2014 Refunding	3,620,000	3,475,000	145,000
-Series 2017 Refunding	295,000	-	295,000
-Notes Payable	3,145,406	3,037,569	107,837
Accounts Payable -Trade	4,540,612	5,390,256	(849,644)
Interest Payable	2,137,785	6,656,499	(4,518,715)
Accrued Payroll and Employee Benefits	2,093,203	2,604,471	(511,269)
Accrued Annual Leave	1,082,311	1,729,291	(646,980)
Current portion of employee annual leave	411,887	567,057	(155,170)
Contractors' Payable	9,760,619	13,950,287	(4,189,668)
Customer and Other Deposits	1,988,983	2,014,435	(25,452)
Other Liabilities	72,817	72,772	45
Total Current Liabilities	30,948,623	41,222,638	(10,274,015)
Long Term Debt, less current maturities			
Series 2010 Revenue Bond	1,895,000	112,800,000	(110,905,000)
Series 2013 Revenue Bond	172,630,000	172,630,000	-
Series 2014 Refunding	68,900,000	72,520,000	(3,620,000)
Series 2016 Revenue Bond	143,310,000	143,310,000	-
Series 2017 Refunding Bond	107,365,000	-	107,365,000
Unamortized Discount - Bond 2010	-	(1,867,525)	1,867,525
Unamortized Discount - Bond 2013	(1,296,168)	(1,338,751)	42,583
Unamortized Premium - Bond 2014	4,582,516	4,804,694	(222,178)
Unamortized Premium - Bond 2016	16,756,730	17,262,975	(506,246)
Unamortized Premium - Bond 2017	13,102,457	-	13,102,457
Notes Payable	2,899,281	5,533,918	(2,634,637)
Unfunded Ret Liability (GASB 67/68)	49,243,798	49,243,798	-
Employee Annual Leave, Less Current Portion	1,021,974	783,992	237,982
Total Liabilities	611,359,211	616,905,739	(5,546,528)
Deferred inflows of resources:			
Deferred inflows from pension	235,155	564,514	(329,359)
Total Liabilities and Deferred Inflows of Resources	611,594,366	617,470,253	(5,875,887)
Net Assets	**241,190,028**	**222,941,776**	**18,248,252**
Total Liabilities, Deferred Inflows of Resources and Net Assets	**852,784,394**	**840,412,029**	**12,372,365**

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE B**
Comparative Budget vs. Actual for the period ending July 31, 2018

	Month to Date		Variance
	Budget July-18	Actual (Unaudited) July-18	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,743,160	5,160,754	(582,406)
Wastewater Revenues	3,228,257	3,205,892	(22,365)
Legislative Surcharge	291,896	296,790	4,894
Other Revenues	57,638	24,273	(33,365)
System Development Charge	46,136	131,810	85,674
Total Operating Revenues	9,367,087	8,819,520	(547,567)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	668,113	648,721	19,392
Power Purchases	1,317,997	1,308,740	9,257
Total Utility Costs	1,986,110	1,957,462	28,649
Salaries and Wages	1,625,056	1,636,313	(11,257)
Pension and Benefits	584,558	686,271	(101,713)
Total Salaries and Benefits	2,209,614	2,322,584	(112,970)
Capitalized Labor and Benefits	(208,333)	(208,333)	(0)
Net Salaries and Benefits	2,001,281	2,114,251	(112,970)
Administrative and General Expenses			
Sludge removal	104,514	102,974	1,540
Chemicals	104,997	90,727	14,270
Materials & Supplies	277,900	275,218	2,682
Transportation	72,370	64,393	7,978
Communications	16,182	16,131	51
Claims	37,100	37,009	91
Insurance	78,757	75,172	3,585
Training & Travel	11,814	6,060	5,754
Advertising	13,910	10,935	2,975
Miscellaneous	108,515	78,761	29,754
Regulatory Expense	29,086	28,287	799
Bad Debts Provision	110,103	109,693	409
Total Administrative and General Expense	965,248	895,360	69,889
Depreciation Expense	1,528,175	1,528,175	(0)
Contractual Expense			
Audit & Computer Maint.	38,630	35,368	3,262
Building rental	37,955	36,262	1,693
Equipment rental	47,375	46,089	1,286
Legal	4,167	600	3,567
Laboratory	4,752	4,005	747
Other	140,363	138,714	1,649
Total Contractual Expense	273,241	261,038	12,203
Retiree Supp. Annuities and health care costs	240,008	234,003	6,006
Contribution to Government of Guam	49,500	49,833	(333)
Total Retiree Benefits	289,508	283,836	5,672
Total Operating Expenses	7,043,563	7,040,121	3,442
Earnings (Loss) from Operations	2,323,524	1,779,399	(544,125)
Interest Income-2010/13/14/16/17 Series Bond	15,727	293,949	278,223
Interest Income-Other Funds	2,935	54,950	52,015
Interest Income-SDC	2,414	12,382	9,968
Interest Expense- 2010/13/14/16/17 Series Bond	(2,625,587)	(2,137,785)	487,803
Interest Expense- ST BOG	(33,288)	(26,293)	6,995
Federal Expenditures	(51,332)	(81,913)	(30,581)
Loss on Asset Disposal	-	-	-
AFUDC	625,000	625,000	-
Amortization of Discount, Premium and Issuance Costs	(61,861)	(77,542)	(15,681)
Defeasance due to bond refunding	(15,218)	(12,444)	2,775
Deferred outflows from pension	(105,281)	32,592	137,873
Prior Year Adjustment	-	-	-
Total non-operating revenues (expenses)	(2,246,492)	(1,317,103)	929,389
Net Income (Loss) before capital contributions	77,032	462,296	385,264
Capital Contributions			
Grants from US Government	873,108	1,408,716	535,608
Grants from GovGuam & Others	-	-	-
Other Contributions	-	-	-
Total Capital Contributions	873,108	1,408,716	535,608
Change in Net Assets	950,140	1,871,012	920,872
Debt Service Calculation			
Earnings From Operations	2,323,524	1,779,399	
System Development Charge	(46,136)	(131,810)	
Retiree COLA	49,500	49,833	
Interest/Investment Income	2,935	54,950	
Depreciation	1,528,175	1,528,175	
Balance Available for Debt Service per Section 6.12	3,857,998	3,280,547	
Working Capital Reserve Available for Debt Service	932,265	935,321	
Transfer to Working Capital- Debt Service Reserve	(150,000)	-	
Transfer to Working Capital- O&M Reserve	(266,667)	-	
Balance Available for Debt Service inclusive of reserves	4,373,596	4,215,868	
Debt Service			
Principal	433,333	433,333	
Interest	2,063,402	1,794,910	
Total	2,496,736	2,228,243	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.55	1.47	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.75	1.89	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE C**
Comparative for the period ending July 31, 2018 and 2017

	Month to Date		Variance
	Actual (Unaudited) July-18	Actual (Audited) July-17	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,160,754	5,331,404	(170,649)
Wastewater Revenues	3,205,892	3,099,528	106,364
Legislative Surcharge	296,790	267,269	29,521
Other Revenues	24,273	36,293	(12,019)
System Development Charge	131,810	72,662	59,148
Total Operating Revenues	8,819,520	8,807,155	12,365
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	648,721	609,094	(39,627)
Power Purchases	1,308,740	1,006,355	(302,385)
Total Utility Costs	1,957,462	1,615,449	(342,013)
Salaries and Wages	1,636,313	1,413,608	(222,704)
Pension and Benefits	686,271	490,400	(195,871)
Total Salaries and Benefits	2,322,584	1,904,009	(418,575)
Capitalized Labor and Benefits	(208,333)	(262,516)	(54,183)
Net Salaries and Benefits	2,114,251	1,641,493	(472,758)
Administrative and General Expenses			
Sludge removal	102,974	140,487	37,513
Chemicals	90,727	174,001	83,274
Materials & Supplies	275,218	128,788	(146,430)
Transportation	64,393	53,744	(10,648)
Communications	16,131	10,884	(5,247)
Claims	37,009	22,151	(14,858)
Insurance	75,172	90,603	15,431
Training & Travel	6,060	23,055	16,994
Advertising	10,935	8,988	(1,947)
Miscellaneous	78,761	71,997	(6,765)
Regulatory Expense	28,287	24,134	(4,153)
Bad Debts Provision	109,693	109,700	6
Total Administrative and General Expense	895,360	858,530	(36,829)
Depreciation Expense	1,528,175	1,402,038	(126,137)
Contractual Expense			
Audit & Computer Maint.	35,368	76,901	41,533
Building rental	36,262	36,557	295
Equipment rental	46,089	59,374	13,285
Legal	600	414	(186)
Laboratory	4,005	10,627	6,622
Other	138,714	156,747	18,033
Total Contractual Expense	261,038	340,619	79,581
Retiree Supp. Annuities and health care costs	234,003	231,895	(2,107)
Contribution to Government of Guam	49,833	49,500	(333)
Total Retiree Benefits	283,836	281,395	(2,441)
Total Operating Expenses	7,040,121	6,139,525	(900,596)
Earnings (Loss) from Operations	1,779,399	2,667,630	(888,231)
Interest Income-2010/13/14/16/17 Series Bond	293,949	65,354	228,595
Interest Income-Other Funds	54,950	10,032	44,918
Interest Income-SDC	12,382	1,060	11,322
Interest Expense- 2010/13/14/16/17 Series Bond	(2,137,785)	(2,220,744)	82,959
Interest Expense- ST BOG	(26,293)	(43,736)	17,443
Federal Expenditures	(81,913)	(42,501)	(39,412)
Loss on Asset Disposal	-	(81,105)	81,105
AFUDC	625,000	1,172,241	(547,241)
Amortization of Discount, Premium and Issuance Costs	(77,542)	61,861	(139,403)
Defeasance due to bond refunding	(12,444)	(15,218)	2,775
Deferred outflows from pension	32,592	-	32,592
Prior Year Adjustment	-	(26,756)	26,756
Total non-operating revenues (expenses)	(1,317,103)	(1,119,512)	(197,590)
Net Income (Loss) before capital contributions	462,296	1,548,118	(1,085,822)
Capital Contributions			
Grants from US Government	1,408,716	1,815,921	(407,205)
Grants from GovGuam & Others	-	1,664	(1,664)
Other Contributions	-	-	-
Total Capital Contributions	1,408,716	1,817,586	(408,870)
Change in Net Assets	1,871,012	3,365,704	(1,494,691)
Debt Service Calculation			
Earnings From Operations	1,779,399	2,667,630	
System Development Charge	(131,810)	(72,662)	
Retiree COLA	49,833	49,500	
Interest/Investment Income	54,950	10,032	
Depreciation	1,528,175	1,402,038	
Balance Available for Debt Service per Section 6.12	3,280,547	4,056,538	
Working Capital Reserve Available for Debt Service	935,321	932,134	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	4,215,868	4,988,672	
Debt Service			
Principal	433,333	420,000	
Interest	1,794,910	1,626,858	
Total	2,228,243	2,046,858	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.47	1.98	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.89	2.44	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE D**
Comparative Budget vs. Actual for the period ending July 31, 2018

	Budget July-18	Year to Date Actual (Unaudited) July-18	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	57,431,601	54,347,086	(3,084,515)
Wastewater Revenues	32,282,573	31,978,862	(303,711)
Legislative Surcharge	2,918,960	2,816,274	(102,687)
Other Revenues	576,380	362,380	(214,000)
System Development Charge	461,358	956,455	495,097
Total Operating Revenues	93,670,872	90,461,056	(3,209,816)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	7,351,132	7,351,566	(434)
Power Purchases	12,128,369	12,241,869	(113,500)
Total Utility Costs	19,479,500	19,593,435	(113,935)
Salaries and Wages	16,250,559	14,779,464	1,471,095
Pension and Benefits	5,845,583	5,035,636	809,947
Total Salaries and Benefits	22,096,142	19,815,100	2,281,042
Capitalized Labor and Benefits	(2,083,333)	(2,197,613)	114,279
Net Salaries and Benefits	20,012,809	17,617,487	2,395,322
Administrative and General Expenses			
Sludge removal	1,295,140	1,292,445	2,695
Chemicals	1,754,968	1,753,154	1,814
Materials & Supplies	1,931,998	1,930,244	1,754
Transportation	538,705	538,629	76
Communications	151,819	151,528	291
Claims	108,500	108,301	199
Insurance	758,566	758,031	535
Training & Travel	124,142	124,141	1
Advertising	116,601	116,165	435
Miscellaneous	860,154	859,656	498
Regulatory Expense	174,863	174,562	302
Bad Debts Provision	1,097,026	1,096,953	73
Total Administrative and General Expense	8,912,481	8,903,809	8,672
Depreciation Expense	15,281,747	15,281,750	(3)
Contractual Expense			
Audit & Computer Maint.	600,803	600,527	276
Building rental	387,650	387,590	60
Equipment rental	755,746	755,735	11
Legal	31,667	31,525	141
Laboratory	361,516	360,733	783
Other	1,716,631	1,716,221	410
Total Contractual Expense	3,854,012	3,852,331	1,681
Retiree Supp. Annuities and health care costs	2,400,083	2,374,388	25,695
Contribution to Government of Guam	495,000	498,333	(3,333)
Total Retiree Benefits	2,895,083	2,872,722	22,362
Total Operating Expenses	70,435,633	68,121,534	2,314,099
Earnings (Loss) from Operations	23,235,240	22,339,522	(895,718)
Interest Income-2010/13/14/16/17 Series Bond	157,266	2,162,528	2,005,262
Interest Income-Other Funds	29,347	368,643	339,296
Interest Income-SDC	24,143	79,857	55,714
Interest Expense- 2010/13/14/16/17 Series Bond	(26,255,872)	(21,854,044)	4,401,828
Interest Expense- ST BOG	(332,882)	(299,775)	33,106
Federal Expenditures	(513,322)	(550,432)	(37,110)
Loss on Asset Disposal	-	-	-
AFUDC	6,250,000	6,250,000	-
Amortization of Discount, Premium and Issuance Costs	(618,608)	(357,211)	261,397
Defeasance due to bond refunding	(152,184)	(124,436)	27,748
Deferred outflows from pension	(1,052,806)	325,920	1,378,726
Prior Year Adjustment	-	44,314	44,314
Total non-operating revenues (expenses)	(22,464,918)	(13,954,636)	8,510,283
Net Income (Loss) before capital contributions	770,321	8,384,886	7,614,565
Capital Contributions			
Grants from US Government	8,731,082	9,863,365	1,132,283
Grants from GovGuam & Others	-	-	-
Other Contributions	-	-	-
Total Capital Contributions	8,731,082	9,863,365	1,132,283
Change in Net Assets	9,501,403	18,248,251	8,746,848
Debt Service Calculation			
Earnings From Operations	23,235,240	22,339,522	
System Development Charge	(461,358)	(956,455)	
Retiree COLA	495,000	498,333	
Interest/Investment Income	29,347	368,643	
Depreciation	15,281,747	15,281,750	
Balance Available for Debt Service per Section 6.12	38,579,976	37,531,794	
Working Capital Reserve Available for Debt Service	9,322,650	9,321,342	
Transfer to Working Capital- Debt Service Reserve	(1,500,000)	-	
Transfer to Working Capital- O&M Reserve	(2,666,667)	-	
Balance Available for Debt Service inclusive of reserves	43,735,959	46,853,135	
Debt Service			
Principal	4,333,333	4,333,333	
Interest	20,634,022	17,949,100	
Total	24,967,355	22,282,433	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.55	1.68	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.75	2.10	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited)
Comparative for the period ending July 31, 2018 and 2017

SCHEDULE E

	Year to Date ACTUAL (Unaudited) July-18	ACTUAL (Audited) July-17	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	54,347,086	53,314,035	1,033,050
Wastewater Revenues	31,978,862	30,995,277	983,585
Legislative Surcharge	2,816,274	2,672,689	143,585
Other Revenues	362,380	362,929	(548)
System Development Charge	956,455	726,622	229,833
Total Operating Revenues	90,461,056	88,071,551	2,389,505
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	7,351,566	6,090,937	(1,260,629)
Power Purchases	12,241,869	10,063,552	(2,178,317)
Total Utility Costs	19,593,435	16,154,489	(3,438,946)
Salaries and Wages	14,779,464	14,136,085	(643,379)
Pension and Benefits	5,035,636	4,904,003	(131,633)
Total Salaries and Benefits	19,815,100	19,040,088	(775,012)
Capitalized Labor and Benefits	(2,197,613)	(2,625,158)	(427,545)
Net Salaries and Benefits	17,617,487	16,414,931	(1,202,557)
Administrative and General Expenses			
Sludge removal	1,292,445	1,404,868	112,423
Chemicals	1,753,154	1,740,011	(13,143)
Materials & Supplies	1,930,244	1,287,877	(642,367)
Transportation	538,629	537,444	(1,185)
Communications	151,528	108,838	(42,690)
Claims	108,301	221,510	113,209
Insurance	758,031	906,027	147,997
Training & Travel	124,141	230,545	106,404
Advertising	116,165	89,878	(26,288)
Miscellaneous	859,656	719,966	(139,690)
Regulatory Expense	174,562	241,344	66,782
Bad Debts Provision	1,096,953	1,096,997	44
Total Administrative and General Expense	8,903,809	8,585,304	(318,505)
Depreciation Expense	15,281,750	14,020,379	(1,261,371)
Contractual Expense			
Audit & Computer Maint.	600,527	769,010	168,483
Building rental	387,590	365,565	(22,025)
Equipment rental	755,735	593,739	(161,996)
Legal	31,525	4,140	(27,385)
Laboratory	360,733	106,265	(254,468)
Other	1,716,221	1,567,471	(148,749)
Total Contractual Expense	3,852,331	3,406,191	(446,140)
Retiree Supp. Annuities and health care costs	2,374,388	2,318,954	(55,434)
Contribution to Government of Guam	498,333	495,000	(3,333)
Total Retiree Benefits	2,872,722	2,813,954	(58,768)
Total Operating Expenses	68,121,534	61,395,248	(6,726,286)
Earnings (Loss) from Operations	22,339,522	26,676,303	(4,336,781)
Interest Income-2010/13/14/16/17 Series Bond	2,162,528	653,544	1,508,985
Interest Income-Other Funds	368,643	100,318	268,325
Interest Income-SDC	79,857	10,598	69,259
Interest Expense- 2010/13/14/16/17 Series Bond	(21,854,044)	(22,207,438)	353,394
Interest Expense- ST BOG	(299,775)	(437,363)	137,587
Federal Expenditures	(550,432)	(425,014)	(125,418)
Loss on Asset Disposal	-	(811,046)	811,046
AFUDC	6,250,000	11,722,410	(5,472,410)
Amortization of Discount, Premium and Issuance Costs	(357,211)	618,607	(975,818)
Defeasance due to bond refunding	(124,436)	(152,184)	27,748
Deferred outflows from pension	325,920	-	325,920
Prior Year Adjustment	44,314	(267,557)	311,871
Total non-operating revenues (expenses)	(13,954,636)	(11,195,125)	(2,759,511)
Net Income (Loss) before capital contributions	8,384,886	15,481,178	(7,096,292)
Capital Contributions			
Grants from US Government	9,863,365	18,159,215	(8,295,850)
Grants from GovGuam & Others	-	16,644	(16,644)
Other Contributions	-	-	-
Total Capital Contributions	9,863,365	18,175,859	(8,312,494)
Change in Net Assets	18,248,251	33,657,037	(15,408,785)
Debt Service Calculation			
Earnings From Operations	22,339,522	26,676,303	
System Development Charge	(956,455)	(726,622)	
Retiree COLA	498,333	495,000	
Interest/Investment Income	368,643	100,318	
Depreciation	15,281,750	14,020,379	
Balance Available for Debt Service per Section 6.12	37,531,794	40,565,378	
Working Capital Reserve Available for Debt Service	9,321,342	9,321,342	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	46,853,135	49,886,720	
Debt Service			
Principal	4,333,333	4,200,000	
Interest	17,949,100	16,268,584	
Total	22,282,433	20,468,584	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.68	1.98	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	2.10	2.44	

SCHEDULE F

Bond Compliance

		($$$) Per Indenture	As of 7/31/18 ($$$) Bond 2013/2014/2016/2017
• Operation and Maintenance Fund-BOG	*Equivalent to 55 days of the annual O&M budget less depreciation*	$10.5M	$10.5M
• Bond Reserve Fund - US Bank	*Fully funded- Principal and Interest (Bond Series 2010, 2013, 2014 Refunding and 2016)*	$34.9M	$34.9M
• Operation, Maintenance, Renewal and Replacement Reserve Fund-BOG Trust	*Equivalent to 1/4 of the annual O&M budget & CIP budget to be funded in 5 years ($2M/year)*	$17.4M	$17.4M
• Capital Improvement Fund	*Balance remaining in the Revenue Fund after the foregoing deposits*	$3.9K	$5.6K

GUAM WATERWORKS AUTHORITY
Restricted and Unrestricted Cash Summary
FY 2018

SCHEDULE G

Description	Unaudited July 31, 2018	Audited September 30, 2017	Increase (Decrease)
UNRESTRICTED			
Change Fund	2,000	2,000	-
Petty Cash	5,000	5,000	-
BOG - Deposit Accounts	1,837,859	4,866,275	(3,028,416)
Sub-total Unrestricted	1,844,859	4,873,275	(3,028,416)
RESTRICTED			
Collection Accounts	58,842	163,466	(104,624)
BOG Deposit Accounts	7,478,641	6,051,064	1,427,577
BP Deposit Accounts	791,208	944,282	(153,074)
BOG Revenue Trust Fund	6,772,080	7,782,227	(1,010,147)
BOG O & M Reserve	13,629,968	13,516,540	113,428
BOG Debt Service Reserve	11,311,972	11,217,733	94,239
BOG CAPEX Fund	18,116,285	15,462,869	2,653,416
	58,158,997	55,138,182	3,020,815
BOG - SDC Deposit	3,291,583	1,486,219	1,805,365
BOG - SDC CDs	7,750,000	8,500,000	(750,000)
Total Restricted	69,200,580	65,124,400	4,076,179
Reserve Funds			
BOG Series 05 OMRRRF Fund	17,423,213	17,423,213	-
BOG Series 13 Construction Fund	41,199,847	74,461,765	(33,261,918)
BOG Series 14 Refunding Construction Fund	739,933	771,281	(31,348)
BOG Series 16 Construction Fund	118,656,846	132,811,449	(14,154,603)
BOG Series 16 Cap Int Fund	-	1,782,982	(1,782,982)
BOG Series 17 Refunding Construction Fund	7,696,702	9,299,311	(1,602,610)
Total Restricted - Held by Trustee	185,716,541	236,550,002	(50,833,461)
USB Series 2013 Debt Service Fund	802,420	2,336,754	(1,534,334)
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	-
USB Series 2014 Refunding Debt Service Fund	629,634	1,796,559	(1,166,925)
USB Series 2014 Refunding Debt Service Reserve Fund	7,891,693	7,707,602	184,091
USB Series 2016 Debt Service Fund	609,209	130	609,079
USB Series 2016 Debt Service Reserve Fund	7,594,597	7,582,725	11,872
USB Series 2010 Debt Service Fund	172,323	2,020,121	(1,847,798)
USB Series 2017 Refunding Debt Service Reserve Fund	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	481,951	-	481,951
Total Investments	37,779,974	41,042,038	(3,262,064)
Total Restricted and Unrestricted Cash	294,541,954	347,589,716	(53,047,762)

SCHEDULE H

Guam Waterworks Authority **Statement of Cash Flows (Unaudited)** **FY 2018**	**YTD** **Jul-18**
Increase (decrease) in cash	
Cash flows from operating activities:	
Cash received from trade and others	89,242,750
Cash payments to suppliers/contractors for goods and services	(33,861,450)
Cash payments to employees for services	(21,891,565)
Net cash provided by operating activities	33,489,735
Cash flows from capital and related financing activities:	
Contributed capital received (grants)	15,386,628
Acquisition of utility plant	(71,128,657)
Repayment of Long Term Debt	7,639,142
Interest expense	(29,310,747)
Net cash provided by (used in) capital and related financing activities	(77,413,634)
Cash flows from investing activities:	
Transfers from (to) restricted fund	38,284,455
Interest income received	2,611,028
Net cash provided by investing activities	40,895,483
Net increase (decrease) in cash	(3,028,416)
Unrestricted cash at beginning of the period	4,873,275
Unrestricted cash at end of period	1,844,859
Reconciliation of operating loss to net cash provided by operating activities:	
Operating Income (loss)	21,775,355
Adjustments to reconcile to net cash provided by operating activities:	
Depreciation expense	15,281,750
Other Expense/income	771,034
(Increase) decrease in assets:	
Accounts receivable	(1,192,899)
Materials and supplies inventory	(1,323,798)
Other Assets	(449,488)
Increase (decrease) in liabilities:	
Accounts payable, Contractors, Retention & Escrow Deposit	(835,543)
Accrued payroll	(511,269)
Customer deposits	(25,407)
Net cash provided by operating activities	33,489,735

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

SCHEDULE I

		AGING				
Customer Name	**No of Accounts**	**Current Balance**	**31-60 days**	**61-90 days**	**91-120 days**	**Over 120 days**	**Outstanding Bal.**
Guam Int'l Airport Authority	4	32,430	42,397	18,700	42,341	160,509	296,377
Guam Memorial Hospital Authority	3	37,564	32,512	38,480	36,415	-	144,970
Port Authority of Guam	2	39,233	40,716	20,845	-	-	100,794
Guam Power Authority	22	60,088	-	-	-	-	60,088
Guam Community College	3	4,390	5,724	4,920	4,590	39,563	59,188
University of Guam	3	16,350	-	-	-	-	16,350
Guam Housing & Urban Renewal Authority	8	5,248	-	-	-	-	5,248
Guam Housing Corporation	1	31	-	-	-	-	31
AUTONOMOUS AGENCIES	**46**	**195,334**	**121,349**	**82,945**	**83,346**	**200,072**	**683,046**
Department of Parks & Recreation	17	96,733	67,809	51,188	38,449	489,352	743,532
Department of Education	48	148,442	162,993	61,070	11,829	121,409	505,743
Department of Corrections	8	90,756	35,536	40,129	23,937	-	190,359
Department of Public Health & Social Services	6	2,757	2,086	1,032	398	102,295	108,567
Mayors' Council of Guam	47	14,799	121	61	107	-	15,088
Guam Fire Department	8	6,792	1,930	-	-	-	8,722
Office of the Governor	2	5,508	-	-	-	-	5,508
Department of Youth Affairs	3	1,012	23	23	23	3,873	4,956
Department of Agriculture	1	1,534	1,400	-	-	-	2,934
Department of Public Works	9	1,488	-	-	-	-	1,488
Sanctuary Inc.	1	1,164	-	-	-	-	1,164
Guam Police Department	2	1,114	-	-	-	-	1,114
Division of Senior Citizens, DPH&SS	2	434	161	164	26	-	785
Guam Veterans' Affairs Office	2	483	-	-	-	-	483
Department of Mental Health & Substance Abuse	1	320	-	-	-	-	320
Department of Administration	1	305	-	-	-	-	305
Guam Public Library	4	228	-	-	-	-	228
The Office of the Dededo Mayor	1	177	-	-	-	-	177
Merizo Mayor	1	34	-	-	-	-	34
Guam Solid Waste Authority	1	23	-	-	-	-	23
LINE AGENCIES	**165**	**374,104**	**272,060**	**153,669**	**74,769**	**716,929**	**1,591,531**
TOTAL July 31, 2018	**211**	**569,438**	**393,409**	**236,614**	**158,115**	**917,002**	**2,274,577**
TOTAL September 30, 2017	**253**	**715,578**	**442,522**	**169,120**	**72,476**	**396,347**	**1,796,043**
% INCREASE/ (DECREASE)	**-17%**	**-20%**	**-11%**	**40%**	**118%**	**131%**	**27%**

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

SCHEDULE J

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 07/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 07/31/18
Santa Rita Springs Booster Pump Rehab Phase II	$ 100,000	$ 100,000	90,163	9,837	$ 100,000	$ -	$ 9,837
"A" Series Well Transmission Line	$ 400,000	$ 400,000	369,846	(0)	$ 369,846	$ 30,154	$ 30,154
Water Booster Pump Station	$ 6,000,000	$ 1,861,000	1,656,428	23,536	$ 1,679,964	$ 181,036	$ 204,572
Meter Replacement Program		$ 999,000	996,532	-	$ 996,532	$ 2,468	$ 2,468
Barrigada Tank Repair/Replacement	$ 6,000,000	$ 4,987,000	4,924,959	62,041	$ 4,987,000	$ 0	$ 62,041
Leak Detection	$ 100,000	$ 20,000	16,916	-	$ 16,916	$ 3,084	$ 3,084
Potable Water System Planning	$ 800,000	$ 624,000	603,390	20,610	$ 624,000	$ -	$ 20,610
Implement Ground Water Rule	$ 1,000,000	$ 1,000,000	1,000,000	-	$ 1,000,000	$ -	$ -
Deep Well Rehabilitation	$ 800,000	$ 200,000	189,930	10,071	$ 200,000	$ (0)	$ 10,070
New Deep Wells at Down Hard	$ 2,000,000	$ 810,000			$ -	$ 810,000	$ 810,000
Master Meters	$ 4,000,000	$ 784,000	531,188	180,872	$ 712,060	$ 71,940	$ 252,812
Ugum Water Treatment Plant Intake	$ 1,000,000	$ 982,000	578,858	280,943	$ 859,801	$ 122,199	$ 403,142
Water Wells	$ 4,200,000	$ 4,200,000	2,284,474	745,555	$ 3,030,029	$ 1,169,971	$ 1,915,527
Water Distribution System	$ 12,000,000	$ 11,151,000	7,159,766	3,752,687	$ 10,912,453	$ 238,547	$ 3,991,234
Pressure Zone Realignment /	$ 1,000,000	$ 431,000	336,036	1,074	$ 337,110	$ 93,890	$ 94,964
Mechanical/Electrical Equipment	$ 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	10,897,321	2,980,680	$ 13,878,000	$ (0)	$ 2,980,679
Ugum Water Treatment Plant Reservoir	$ 7,000,000	$ 90,000			$ -	$ 90,000	$ 90,000
Agana Heights & Chaot Tanks	$ 4,500,000	$ 3,280,000	241,603	1,088,684	$ 1,330,287	$ 1,949,713	$ 3,038,397
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 13,500,000	$ 11,605,000	9,024,195	2,580,805	$ 11,605,000	$ 0	$ 2,580,805
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 8,000,000	$ -			$ -	$ -	$ -
Assessment of malojloj Elevetad & Yigo Elevated	$ 500,000	$ 485,117	461,813	23,304	$ 485,117	$ -	$ 23,304
Fire Hydrant Replacement Program	$ -	$ -			$ -	$ -	$ -
Wastewater System Planning	$ 800,000	$ 651,000	566,364	84,536	$ 650,900	$ 100	$ 84,636
Lift Station Upgrades	$ 5,000,000	$ 946,000	562,785	363	$ 563,149	$ 382,852	$ 383,215
Wastewater Collection System Repl/Rehab	$ 6,500,000	$ 780,000	578,438	81,875	$ 660,314	$ 119,687	$ 201,562
Baza Gardens STP Replacement		$ 3,114,883	2,688,166	426,703	$ 3,114,869	$ 14	$ 426,717
Facilities Plan/Design for Umatac-Merizo WWTP		$ 473,000	341,226	30,473	$ 371,699	$ 101,301	$ 131,774
Agat/Santa Rita STP Replacement	$ 19,000,000	$ 67,200,000	47,621,200	19,262,992	$ 66,884,192	$ 315,808	$ 19,578,800
Agana WWTP Interim Measures		$ 673,000	611,247	61,753	$ 673,000	$ (0)	$ 61,753
Umatac Merizo Replacement	$ 2,000,000	$ -			$ -	$ -	$ -
Wastewater Pump Station Electrical Upgrade	$ 620,000	$ 620,000	91,348	8,513	$ 99,861	$ 520,139	$ 528,652
Electrical Upgrade - Water Wells	$ 1,500,000	$ 1,500,000	1,480,769	19,230	$ 1,500,000	$ 0	$ 19,231
Electrical Upgrade - Water Booster	$ 325,000	$ 2,000			$ -	$ 2,000	$ 2,000
Electrical Upgrade -Water Booster	$ 350,000	$ 200,000	977	-	$ 977	$ 199,023	$ 199,023
Electrical Upgrade - Other Water	$ 250,000	$ 150,000	60,700	-	$ 60,700	$ 89,300	$ 89,300
SCADA Improvements – Phase 3	$ 1,850,000	$ 923,000	445,447	276,912	$ 722,359	$ 200,641	$ 477,553
SCADA Improvements – Phase 4	$ 500,000	$ -			$ -	$ -	$ -
Laboratory Modernization	$ 1,500,000	$ 1,173,000	1,163,037	8,428	$ 1,171,465	$ 1,535	$ 9,963
Land Survey	$ 2,000,000	$ 2,000	1,038	15	$ 1,053	$ 948	$ 963
General Plant Improvements / Water	$ 2,000,000	$ 2,600,000	1,265,043	1,176,695	$ 2,441,737	$ 158,263	$ 1,334,957
Allowance for COI							$ 275,005
Interest Earned							$ 769,729
Total Construction Fund (2013 Series Revenue Bond)	**$ 139,325,000**	**$ 139,325,000**	**$ 99,169,887**	**$ 33,297,300**	**$ 132,467,187**	**$ 6,857,813**	**$ 41,199,847**

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

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

SCHEDULE K

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 07/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	20% PUC AS OF 07/31/18	CONSTRUCTION FUND BALANCE AS OF 07/31/18
Agana Treatment Plant	$ 10,475,000	$ 11,065,512	11,065,512	$ -	$ 11,065,512	$ (0)	$ 2,095,000	$ (0)
Agana Outfall	$ 5,030,000	$ 10,127,198	10,127,198	$ -	$ 10,127,198	$ 0	$ 1,006,000	$ 0
Northern District (Outfall)	$ 4,700,000	$ 10,251,423	10,251,423	$ -	$ 10,251,423	$ 0	$ 940,000	$ 0
Northern District WWTP Upgrade		$ 173,681	173,681		$ 173,681	$ -		$ -
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 Reductic	$ 2,155,000	$ 1,931,659	1,931,659	$ -	$ 1,931,659	$ (0)	$ 431,000	$ (0)
Chaot WW Pump Station/Collection System	$ 410,000	$ 399,120	399,120	$ -	$ 399,120	$ -	$ 82,000	$ -
Lift Station Upgrades	$ 230,000	$ 149,895	149,895	$ -	$ 149,895	$ 0	$ 46,000	$ 0
Collection Line Upgrades	$ 200,000	$ 62,755	62,755	$ -	$ 62,755	$ 0	$ 40,000	$ 0
"A" Well Transmission Line	$ 2,413,000	$ 3,833,175	3,818,088	$ 15,087	$ 3,833,175	$ (0)	$ 482,600	$ 15,087
Santa Rita Springs - Booster Pump Rehab.	$ 648,000	$ 306,841	306,841	-	$ 306,841	$ (0)	$ 129,600	$ (0)
Fena Bypass Transmission line		$ 160,913	160,913	$ -	$ 160,913	$ (0)	$ -	$ (0)
Storage Additions	$ 950,000	$ -			$ -	$ -	$ 190,000	$ -
Booster Station Upgrades	$ 390,000	$ 66,734	66,734	$ -	$ 66,734	$ -	$ 78,000	$ -
Mangilao Tank Repair	$ 800,000	$ 398,367	397,933	$ 434	$ 398,367	$ (0)	$ 160,000	$ 434
Ugum Tank Replacement	$ 2,500,000	$ -			$ -	$ -	$ 500,000	$ -
Ugum WTPlant Refurbishment ($1.724,970EPA)		$ 6,588,473	6,531,525	$ 56,949	$ 6,588,473	$ (0)		$ 56,948
Barrigada Tank Repair/Replacement	$ 3,000,000	$ 65,019	65,019	$ -	$ 65,019	$ 0	$ 600,000	$ 0
Water Reservoir Condition Assessment		$ 1,250,000	1,249,227.16	$ 772	$ 1,250,000	$ 0	$ -	$ 773
EarthTech Well Buyout	$ 5,000,000	$ 5,975,000	5,975,000	$ -	$ 5,975,000	$ -	$ 1,000,000	$ -
Water Wastewater Master Plan	$ 4,900,000	$ 4,881,308	4,881,308	$ -	$ 4,881,308	$ 0	$ 980,000	$ 0
Laboratory Modernization	$ 800,000	$ 135,055	135,055	$ -	$ 135,055	$ 0	$ 160,000	$ 0
Land Survey	$ 800,000	$ 577,836	576,134	$ 1,702	$ 577,836	$ 0	$ 160,000	$ 1,702
Ground Water Disinfection		$ -				$ -		$ -
GWUDI Study		$ 262,234	260,430	1,804	$ 262,234	$ -		$ 1,804
Contingency	$ 12,276,023	$ 154	-	$ -	$ -	$ -		$ 732
Vehicles	$ 1,100,000	$ 1,280,000	2,130,305	$ (850,305)	$ 1,280,000	$ -	$ 220,000	$ -
Generation Equipment	$ 700,000	$ 880,000	2,712	$ 877,288	$ 880,000	$ 0		$ 27,033
Leak Detection/Line Replacement	$ 8,200,000	$ 5,988,494	5,988,494	$ -	$ 5,988,494	$ -	$ 1,640,000	$ -
Automated Meter Reading	$ 12,572,063	$ 17,468,359	16,870,522	$ 537,157	$ 17,468,359.32	$ 0	$ 2,514,413	$ 597,837
Total Construction Fund (2014 Series Refu	$ 82,930,086	$ 89,711,698	$ 88,981,263	$ 669,600	$ 89,711,543	$ 1	$ 13,990,813	$ 731,063
Interest Earned	$ 6,781,612	$ (0)				$ (0)		$ 8,871
Total Project Cost Funding	**$ 89,711,698**	**$ 89,711,698**	**$ 88,981,263**	**$ 669,600**	**$ 89,711,543**	**$ 1**	**$ 13,990,813**	**$ 739,934**

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

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 07/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 07/31/18
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	64,531	85,469.44	$ 150,000	$ 4,351,000	$ 4,436,469
Barrigada 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	260,131	616,163.05	$ 876,294	$ 1,399,706	$ 2,015,869
Deep Well Rehabilitation	$ 250,000	$ 250,000		110,013.00	$ 110,013	$ 139,987	$ 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	$ 3,464,461
Ugum 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		741,000.20	$ 741,000	$ 400,000	$ 1,141,000
Mechanical/Electrical Equipment	$ 100,000	$ 100,000			$ -	$ 100,000	$ 100,000
Water Reservoir Internal/External	$ 800,000	$ 800,000		800,000.00	$ 800,000	$ -	$ 800,000
Water System Reservoirs 2005 Improvements	$ 42,350,000	$ 28,350,000	2,008,486	14,118,396.31	$ 16,126,882	$ 12,223,118	$ 26,341,514
Ugum Water Treatment Plant Reservoir	$ 6,410,000	$ -			$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan	$ 1,000,000	$ 1,000,000		389,561.70	$ 389,562	$ 610,438	$ 1,000,000
Agana Heights & Chaot Tanks	$ 1,220,000	$ 1,220,000		500,000.00	$ 500,000	$ 720,000	$ 1,220,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 1,895,000	$ 1,895,000		1,822,132.80	$ 1,822,133	$ 72,867	$ 1,895,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 10,500,000	$ 7,409,830		7,300,000.00	$ 7,300,000	$ 109,830	$ 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	193,899	119,084.26	$ 312,983	$ 36,017	$ 155,101
Lift Station Upgrades	$ 2,404,000	$ 2,404,000	222,568	42,186.67	$ 264,755	$ 2,139,245	$ 2,181,432
Wastewater Collection System Repl/Rehab	$ 2,920,000	$ 2,920,000	911.46	554,566.54	$ 555,478	$ 2,364,522	$ 2,919,089
Baza Gardens STP Replacement	$ 16,700,000	$ 29,400,170	12,108,603	17,097,178.90	$ 29,205,782	$ 194,388	$ 17,291,567
Facilities Plan/Design for Umatac-Merizo WWTP	$ 527,000	$ 527,000	239,045	13,060.42	$ 252,105	$ 274,895	$ 287,955
Agat/Santa Rita STP Replacement	$ 3,000,000	$ 3,000,000	1,273,611	271,477.03	$ 1,545,088	$ 1,454,912	$ 1,726,389
Agana WWTP Interim Measures	$ 827,000	$ 827,000			$ -	$ 827,000	$ 827,000
Umatac Merizo Replacement	$ 8,000,000	$ 20,800,000	4,028,214	16,574,040.38	$ 20,602,254	$ 197,746	$ 16,771,786
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	18,000	599,496.51	$ 617,497	$ 559,503	$ 1,159,000
SCADA Improvements – Phase 4	$ 6,500,000	$ 6,500,000		2,883,117.85	$ 2,883,118	$ 3,616,882	$ 6,500,000
Laboratory Modernization	$ 1,127,000	$ 1,127,000	1,127,000	-	$ 1,127,000	$ -	$ -
Land Survey	$ 1,998,000	$ 1,998,000	130,370	1,130,153.37	$ 1,260,524	$ 737,476	$ 1,867,630
General Plant Improvements / Water	$ 2,769,463	$ 2,769,463	716,554	827,205.38	$ 1,543,760	$ 1,225,703	$ 2,052,909
Information Technology Integration Improvements	$ 500,000	$ 500,000	244,068	-	$ 244,068	$ 255,932	$ 255,932
Interest Earned		$ -					$ 1,424,912
Total Construction Fund (2016 Series Revenue Bond)	**$ 140,019,463**	**$ 140,019,463**	**$ 22,787,530**	**$ 66,594,304**	**$ 89,381,834**	**$ 50,637,629**	**$ 118,656,845**

GUAM WATERWORKS AUTHORITY
2010 Series Bond Project Status
As of July 31, 2018

SCHEDULE M

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 07/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 07/31/18
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	$ 10,255,079	$ 18,549	$ 10,273,628	$ 26,372	$ 44,921
Barrigada Tank Repair/Replacement	$ -	$ 5,450,000	$ 5,442,302	$ 7,698	$ 5,450,000	$ 0	$ 7,698
Leak Detection		$ 200,000	$ -	$ 200,000	$ 200,000	$ -	$ 200,000
Potable Water System Planning	$ 200,000	$ 200,000	$ 180,927	$ 19,073	$ 200,000	$ -	$ 19,073
Implement Ground Water Rule		$ 1,700,000	$ 1,499,464	$ 200,535	$ 1,700,000	$ 1	$ 200,536
Brigade II (Ugum Lift) BPS Upgrade	$ 1,200,000	$ 1,700,000	$ 251,134	$ 86,760	$ 337,895	$ 1,362,105	$ 1,448,866
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	$ 730,182	$ 44,820	$ 775,002	$ 124,998	$ 169,818
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	$ 1,083,817	$ 425,567	$ 1,509,384	$ 490,616	$ 916,183
Water Reservoir Internal/External	$ 2,400,000	$ -	$ -		$ -	$ -	$ -
Water System Reservoirs 2005 Improvements	$ 11,697,000	$ 1,050,000	$ 1,050,000		$ 1,050,000	$ 0	$ 0
Distribution System Upgrades	$ 3,182,000	$ 474,160	$ 456,678	$ 17,481	$ 474,160	$ 0	$ 17,482
Ugum Water Treatment Plant Reservoir	$ 3,672,000	$ -	$ -		$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan		$ 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 Asessment of Tank		$ 500,000	$ 497,004	$ 2,996	$ 500,000	$ -	$ 2,996
Agana Heights & Chaot Tanks		$ 4,700,000	$ 4,350,014	$ 349,986	$ 4,700,000	$ -	$ 349,986
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 malojloj Elevetad & Yigo Elevated		$ 200,000	$ 200,000	$ -	$ 200,000	$ -	$ -
Public Water System Asser Inventory/Condition Assesment		$ 100,000	$ 98,414	$ 1,586	$ 100,000	$ -	$ 1,586
Public Water System GIS & Mapping		$ 50,000	$ 50,000	$ -	$ 50,000	$ -	$ -
Wastewater System Planning	$ 1,500,000	$ 1,500,000	$ 1,468,176	$ 5,824	$ 1,474,000	$ 26,000	$ 31,824
Wastewater Vehicles	$ 235,000	$ 235,000	$ 209,795	$ 25,205	$ 235,000	$ 0	$ 25,205
NDWWTP - Chlorine Tanks	$ 250,000	$ 250,000	$ 250,000		$ 250,000	$ -	$ -
Tumon Bay Sewer Upgrades	$ 100,000	$ -	$ -		$ -	$ -	$ -
Wastewater Collection System Repl/Rehab		$ 1,105,000	$ 723,591	$ 283,287	$ 1,006,878	$ 98,122	$ 381,409
Facilities Plan/Design for Baza Gardens WWTP	$ 1,250,000	$ 1,250,000	$ 1,245,244	$ 4,756	$ 1,250,000	$ -	$ 4,756
Facilities Plan/Design for Agat-Santa Rita WWTP	$ 900,000	$ 899,630	$ 891,702	$ 7,928	$ 899,630	$ -	$ 7,928
Priority 1 Sewer Upgrades – Baza Gardens WWTP	$ 650,000	$ -	$ -		$ -	$ -	$ -
Baza Gardens STP Replacement	$ 3,567,000	$ 1,301,947	$ 1,151,947	$ 314	$ 1,152,261	$ 149,686	$ 150,000
Facilities Plan/Design for Umatac Merizo WWTP		$ 900,000	$ 760,845	$ 93,013	$ 853,858	$ 46,142	$ 139,155
Agat/Santa Rita STP Replacement	$ 2,968,000	$ 2,218,000	$ 2,217,314	$ 387	$ 2,217,701	$ 300	$ 686
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	$ 11,254,925	$ 45,075	$ 11,300,000	$ 200,000	$ 245,075
I&I SSES Southern		$ 800,000	$ 794,722	$ 5,278	$ 800,000	$ (0)	$ 5,278
I&I SSES Central		$ 850,000	$ 794,325	$ 55,675	$ 850,000	$ -	$ 55,675
I&I SSES Northern		$ -			$ -	$ -	$ -
Umatac Merizo Replacement		$ 250,000	$ 247,431	$ 2,569	$ 250,000	$ -	$ 2,569
Northern District WWTP Secondary Treatment Upgrades		$ 1,000,000	$ -	$ 1,000,000	$ 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	$ 339,948	$ 14,278	$ 354,227	$ 0	$ 14,279
Electrical Upgrade - Water Booster	$ 325,000	$ -	$ -		$ -	$ -	$ -
Electrical Upgrade -Water Booster	$ 350,000	$ -	$ -		$ -	$ -	$ -
Electrical Upgrade - Other Water	$ 250,000	$ -			$ -	$ -	$ -
SCADA Improvements – Phase 1	$ 250,000	$ 250,000	$ 194,849	$ 55,151	$ 250,000	$ -	$ 55,151
SCADA Improvements – Phase 2	$ 1,100,000	$ 1,056,986	$ 1,028,284	$ 28,702	$ 1,056,986	$ -	$ 28,702
SCADA Improvements – Phase 3	$ 2,500,000	$ 24,956	$ 24,956	$ -	$ 24,956	$ 0	$ 0
SCADA Improvements – Phase 4	$ 850,000	$ -	$ -		$ -	$ -	$ -
Laboratory Modernization	$ 1,200,000	$ -	$ -		$ -	$ -	$ -
Land Survey	$ 1,500,000	$ 500,000	$ 471,450	$ 28,237	$ 499,687	$ 313	$ 28,550
General Plant Improvements / Water	$ 14,370,000	$ 7,241,000	$ 7,241,000	$ 0	$ 7,241,000	$ 0	$ 0
Interest Earned							$ 131,430
Total Construction Fund (2010 Series Revenue Bond)	**$ 87,402,000**	**$ 87,402,000**	**$ 79,836,728**	**$ 4,096,454**	**$ 83,933,182**	**$ 3,468,818**	**$ 7,696,702**

1.) PUC's Docket 11-01 $29,000,000.00 dated 09/19/11authorized GWA for reallocation
2) PUC's Docket 11-01 Reallocation of $23,246,000.00 dated 07/30/12
3) PUC's Dockect Reallocation dated February 2013

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. 42-FY2017
Relative to the Approval of the Contract with JMI-Edison for the Purchase of Vacuum Regulators and Parts for Island Wide Water Production Chlorination Systems.

What is the project's objective and is it necessary and urgent?
This approval requested in this resolution will authorize the purchase water chlorination parts, materials and maintenance kits to improve the reliability and safety of chlorination systems employed throughout GWA's production facilities and decrease the downtime of deep well chlorination system due to corrective maintenance required.

The existing chlorination systems are showing signs of wear, with some components reaching the end of useful service life. If not properly repaired or replaced, these parts can fail, leading to an increased potential of chlorine gas leak or system malfunction. Such occurrences pose a safety hazard to employees and to the public if proper chlorination of our drinking water is not achieved.

The proposed purchase is necessary and urgent to establish a good working inventory of replacement parts to keep systems operational, and maintenance kits to extend the useful life of our existing systems. Maintenance kits can potentially double the useful life of essential chlorination system parts.

Where is the location?
GWA Island-wide Deep-well Production Facilities / Chlorination Sites.

How much will it cost?
Eight Hundred Seventeen Thousand, Four Hundred Twenty-Three and Thirty-Two Cents. ($817,423.32)

Description	Product Number	IFB 2018-22	Bid Qty (est'd)	IFB 2018-22 Unit Cost	Bid Cost
		Item No		EA	
NXT 3000 CLs Cylinder Mounted 500 PPD Max Cap	VR3000C021XX	1.0	50	$1,717.80	$85,890.00
Remote Multi-purpose Ejector Check	EJ17C101XX	2.0	224	$1,012.38	$226,773.12
Meter Assembly w/ Manual Rate Valve	MA3001C04XX	2.1	112	$809.62	$90,677.44
CR 3-10 A-FGJ-E-HQQE	Product No.: 96083216				$0.00
Flowmeter Maintenance Kit	PN 614S096U01	2.2	112	$54.91	$6,149.92
Regulator Maintenance Kit	PN 614S090U01	2.3	112	$129.54	$14,508.48
Ejector Maintenance Kit	PN 614S092U01	2.4	112	$98.56	$11,038.72
Inlet Valve Kit Double O Ring	PN 27385-1	2.5	112	$283.02	$31,698.24
Reducing Bushing, ½"MNPT x ¼"FNPT	Part# R-246	2.6	150	$9.86	$1,479.00
¼" NPT x 3/8" Tubing connector	Part# F-100-1	2.7	150	$14.08	$2,112.00
Plate, Inlet Fitting Support	Part# 22952	2.8	30	$83.08	$2,492.40
Retainer Ring	Part# U-1830	2.9	30	$15.49	$464.70
Fitting, Gas inlet	Part# 27100	3.0	30	$426.64	$12,799.20
Meter Tube Assemblies 25ppd	Part#600B060U04	3.1	30	$439.31	$13,179.30
Meter Tubes 25ppd	Part# 21496	3.2	30	$439.31	$13,179.30
					$512,441.82
Description	**Product Number**			**IFB 2018-22 Unit Cost**	**Bid Cost**
				EA	
Capital Controls Gas Detector Series 1610B Single Point Gas Detectors	P/N: 1610B-01-01-01-XX	3.3	50	$2,559.81	$127,990.50
Battery Backup Model 1640 for 1610B	P/N: 1640-01-01-XX	3.4	50	$2,365.50	$118,275.00
Gas Sensor Test Kit Part No BM-4709	BM-4709	3.5	75	$184.46	$13,834.50
Sensor for 1610B Single Point Gas Detectors Part No A-1387 (for Chlorine)	A-1387 (for Chlorine)	3.6	75	$598.42	$44,881.50
					$304,981.50

IFB 2018-22 Total	$817,423.32

When will it be completed?
The indefinite quantity contract will be in place for an initial term of 3 years and two (2) years one-year option to renew. Purchases will be ongoing on an as-needed basis over the life of the contract term.

What is the funding source(s)?
FY 2018 / FY 2019 GWA Water Production and Treatment Operations and Maintenance Budget.

The RFP / Bid Responses
IFB 2018-22 Vacuum Regulators and Parts (Re-Bid).

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. 42-FY2018

RELATIVE TO APPROVAL OF THE CONTRACT WITH JMI-EDISON FOR THE PURCHASE OF VACUUM REGULATORS AND PARTS FOR ISLANDWIDE WATER PRODUCTION CHLORINATION SYSTEMS

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 advertised an Invitation for Bid (IFB) 2018-22 soliciting bid proposals from experienced and responsive bidders to provide island wide GWA Water Production Chlorination systems with vacuum regulators, ejectors, flow meters, maintenance kits and parts to provide adequate stock replenishment when needed to continue to operate and maintain chlorination systems required under Safe Water Drinking Act; and

WHEREAS, six entities registered for the bid procurement, and there was one responsive and responsible bidder who met the bid requirements of IFB 2018-22; and

WHEREAS, the IFB 2018-22 offers were evaluated by GWA's review committee, who determined that the offer for Vacuum Regulators and Parts made by JMI-Edison is fair and reasonable on the basis of comparison to historical procurement data [EXHIBIT A]; and

WHEREAS, GWA accepted JMI-Edison's indefinite quantity bid proposal for Vacuum Regulators and Parts [EXHIBIT B] at an estimated total amount of Eight Hundred Seventeen

Thousand Four Hundred Twenty-Three Dollars and Thirty-Two Cents ($ 817,423.32) [EXHIBIT B]; and

WHEREAS, GWA Management seeks CCU Approval of the Contract amount of Eight Hundred Seventeen Thousand Four Hundred Twenty-Three Dollars and Thirty-Two Cents ($817,423.32) for the purchase of Water Production Chlorination System Vacuum Regulators and Parts; and

WHEREAS, the source of funding for the Vacuum Regulators and Parts Bid will be from FY 2018 / FY 2019 GWA Water Production and Treatment Operations and Maintenance Budget.

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 bid proposal submitted by "JMI-Edison" are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to proceed based on the notice of award to "JMI-Edison" attached hereto as EXHIBIT B, and which is incorporated into this Resolution in its entirety.
4. The CCU hereby further authorizes the management of GWA to enter into a contract with "JMI Edison", to purchase up to Eight Hundred Seventeen Thousand Four Hundred Twenty-Three Dollars and Thirty-Two Cents ($ 817,423.32) worth of Vacuum Regulators and Parts, on as needed basis for the contract amount on IFB 2018-22, for the duration of the initial contract term of three (3) years as specified in the IFB 2018-22 "Indefinite Quantity Bid", and two (2) one-year options to renew, subject to availability of funds and agreement between the parties.
5. The CCU hereby approves the funding total of Eight Hundred Seventeen Thousand Four Hundred Twenty-Three Dollars and Thirty-Two Cents ($ 817,423.32) [EXHIBIT B];

6. GWA Management is hereby authorized to seek PUC approval in the event the contract value exceeds One Million Dollars ($1,000,000.00) as required by Docket 00-04.

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

DULY AND REGULARLY ADOPTED, this 28th day of August, 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson Secretary

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

EXHIBIT A

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives."
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao GU, 96913
Tel: 671.300.6032/30 Fax: 671.649.3750

NOTICE OF CONDITIONAL AWARD

JMI Edison
125 North Marine Drive
P.O. Box 6577
Tamuning, Guam 96931

Date:

Re: Invitation for Bid Number: IFB 2018-22 (RE-BID) Vacuum Regulators and Parts

Hafa Adai Mr. Romeo I. Oriondo,

The Guam Waterworks Authority ("GWA") has considered the bid submitted by JMI Edison for the above described reference in response to its Advertisement for Bids dated May 08, 2018 and you are hereby notified that the bid price for all line Items Nos has been accepted by GWA. Please be advised that you must now deliver all other documents required by the bid, including, but not limited to, proof of insurance and the Performance and Payment Bond (which must remain in full force and effect until all performance has ended, which includes all warranty periods).

You are also advised that any obligation incurred by your firm prior to execution of the contract is entirely at your own risk and GWA shall have no obligation to reimburse costs incurred prior to execution of the contract.

Please note this Notice of Award is conditional on obtaining the approval of the Guam Consolidated Commission on Utilities for any award over $250,000 and the approval of the Guam Public Utilities Commission where the total value over the life of the contract could exceed $1M. Also, award is conditional upon providing any documents such as proof of licensure, proof of insurance or other documents required to be submitted to GWA under the Bid or Guam law.

You are required to return an acknowledged copy of this Conditional Notice of Award to the Procurement Administrator.

Sincerely,

Miguel C. Bordallo, P.E.
General Manager

REF: IFB 2018-22 Vacuum Regulators and Parts

ACCEPTANCE OF CONDITIONAL NOTICE OF AWARD

Receipt of the above Notice of Conditional Award for GWA Bid No. 2018-22 (RE-BID) is hereby acknowledged

By: Mr delosreyes Title: OFFICE MANAGER

Signature (please print)

Dated this 1st day of August, 2018.

******** END OF CONDITIONAL NOTICE OF AWARD *******

REF: IFB 2018-22 Vacuum Regulators and Parts

EXHIBIT B

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913

MEMORANDUM

TO: General Manager

VIA: Supply Management Administrator

FROM: Evaluation Committee Members

SUBJECT: Invitation to Bid No. GWA 2018-22
Ref: (RE-BID) Vacuum Regulators and Parts

REF: Recommendation of Award

DATE: July 9, 2018

Invitation to Bid No. GWA 2018-22 was officially announced and advertised in the Pacific Daily News, Marianas Variety and Guam Waterworks Authority Website on May 08, 2018 and open as scheduled on May 24, 2018 @ 10:00 am. Six (6) prospective bidders expressed their interests by acknowledging receipt of the bid package thru GWA's website.

Bidders Register:

1. Compacific
2. Benson Guam Ent. Inc.
3. JMI Edison
4. A
5. ONVIA
6. Guam Pacific Enterprise

Of the Six (6) only One (1) submitted their bid package, namely:

- JMI Edison

An evaluation committee was formally assembled and met on May 31, 2018 @ 10:00 am to review/discuss and evaluate bid submittal. Completing the evaluation, the committee members have determined JMI Edison bid proposal is deemed responsive and have complied with all terms & conditions and requirements set for in the IFB with their cost proposal as follows:

I. BID ITEM(s)

Indefinite Quantity Bid

Item No	Description	Est. Qty	Unit Cost	Total Cost
1.0	Vacuum Regulator Series NXT3000 PPD Max Cap (Cylinder Mounted) w/Standard Accessories	50 each	$1,717.80	$85,890.00

BIDDING ON:

MFG: Denora
Brand: Denora
Place: of Origin: USA
Date of Delivery: 90 DAYS
(After Receipt of Purchase Order)

Item No	Description	Est. Qty	Unit Cost	Total Cost
2.0	Remote Multi-Purpose Ejector Check Part # EJ17C101XX	224 each	$1,012.38	$226,773.12
2.1	Flow Meter Assembly w/ Manual Rate Valve Part # MA3001C04XX	112 each	$809.62	$90,677.44
2.2	Flowmeter Maintenance Kit Part # 614S096U01	112 each	$54.91	$6,149.92
2.3	Regulator Maintenance Kit Parts # 614S090U01	112 each	$129.54	$14,508.48
2.4	Ejector Maintenance Kit Parts # 614S092U01	112 each	$98.56	$11,038.72
2.5	Inlet Valve Kit Double O Ring Parts # 27385-1	112 each	$283.02	$31,698.24
2.6	Reducing Bushing, ½" MNPT x ¼" FNPT Part # R-246	150 each	$9.86	$1,479.00

2.7	Tubing connector ¼" NPT x 3/8" Parts # F-100-1	150 each	$14.08	$2,112.00
2.8	Plate, Inlet Fitting Support Part# 22952	30 each	$83.08	$2,492.40
2.9	Retainer Ring Part # U-1830	30 each	$15.49	$464.70
3.0	Fitting, Gas inlet Part # 27100	30 each	$426.64	$12,799.20
3.1	Meter Tube Assemblies 25ppd Part # 600B060U04	30 each	$439.31	$13,179.30
3.2	Meter Tubes 25ppd	30 each	$439.31	$13,179.30
3.3	Capital Controls Gas Detector Series 1610B Single Point Gas Detectors Part # 1610B-01-01-01-XX	50 each	$2,559.81	$127,990.50
3.4	Battery Backup Model 1640 for 1610B Part # 1640-01-01-XX	50 each	$2,365.50	$118,275.00
3.5	Gas Sensor Test Kit. Part # BM-4709	75 each	$184.46	$13,834.50
3.6	Sensor for 1610B Single Point Gas Detectors Part #1387 (for Chlorine)	75 each	$598.42	$44,881.50

BIDDING ON:

MFG: Denora
Brand: Denora
Place: of Origin: USA
Date of Delivery: 90 DAYS
(After Receipt of Purchase Order)

Summary:

The Date of Delivery has been amended to 90 days stated on Response to Inquiries No. 1

Delivery:

The vendor will be responsible for all cost and all risks associated with the provision of these goods until delivery is made and the items are formally accepted by GWA. All goods shall be delivered to Guam Waterworks Authority at GWA's warehouse at Tamuning, Guam. Delivery time is **90 Days** from the date on the Notice to Proceed.

Warranty:

The successful bidder shall warrant that all goods and services to be provided hereunder are fit for the intended purpose stated in this Bid, are manufactured in the United States and meet the standards set forth in this Bid. The bidder shall also warrant all goods and services provided under this Bid to be free from manufacturer's defects for a period of not less than 3 years after receipt of goods unless the manufacturer provides for a longer standard warranty, in which case, the longer term shall apply. The warranty shall require the vendor to bear all costs to provide replacement goods within a reasonable period.

Contract Term:

GWA and the lowest responsible bidder may enter into a contract (which may be in the form of a Purchase Order) on terms acceptable to GWA which shall commence upon vendor's acknowledged receipt of a Notice to Proceed from GWA. The initial term of the contract is two (2) years, with option to renew for an additional 1-year term.

Concurred and accepted by the committee members:

7/9/2018
Ron Top, Operations and Maintenance Manager

7/9/2018
Karen Cheryl O. Grape, Management Analyst III

July 9, 2018
Mary D. Torres, Buyer II

Antonio C. Camacho, Buyer II

Your approval is greatly appreciated.

In consideration of the foregoing, please indicate your approval of this recommendation by your signature below.

[✓] CONCURRED [ ] UNCONCURRED

VINCENT ED. GUERRERO, SMA

[✓] APPROVED [ ] DISAPPROVED

7.11.18

MIGUEL C. BORDALLO, P.E. GENERAL MANAGER

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. 43- FY2018
Relative to Approval of GWA's 2018 Water Resource Master Plan (WRMP) Update

What is the project's objective and is it necessary and urgent?
The Water Resource Master Plan update is a 20-year long-term planning document. The objectives and goals of the WRMP Update are to Improve water quality and system reliability, reduce number of water outages, replace asbestos cement and galvanized steel water lines, rehabilitate/replace sewer lines and sewer pump stations, upgrade WW treatment plants to achieve Federal Permit compliance, and reduce wastewater overflows. In addition, the WRMP will guide GWA towards improving operational sustainability to maintain all assets by expanding programmatic efforts in the areas of asset management, water loss control, fire hydrant repair/replacement and hydraulic modeling.

Where is the location?
WRMP Update impacts the water and wastewater systems island-wide

How much will it cost?
The 2018 WRMP Update characterizes and quantifies the cost of the water and wastewater needs from 2018 through 2037 as; 1) court order related at an estimated One Hundred Nine Million Dollars ($109,000,000); 2) improvements for system reliability/quality at an estimated Ninety-Six Million Dollars ($96,000,000.00), upgrades associated with rehabilitating the systems or increasing capacity at an estimated Eight Hundred Thirty-Two Million Dollars ($832,000,000), and overall systems expansion at an estimated Two Hundred Eighteen Million Dollars ($218,000,000).

When will it be completed?
The WRMP covers a 20-year period.

What is the funding source?
Funding for the proposed WRMP Update projects will come primarily from bonds that will be paid through rate payer revenues as well as with funds from USEPA State Revolving Fund (SRF), Internally Funded CIP (IFCIP), Federal Grants and possibly Federal Loans.

If the WRMP Update is adopted, specific funding needs and proposed sources will be developed and presented to the CCU at a later time in 5-year Capital Improvement Plans.

The RFP/BID responses (if applicable):
Not Applicable.

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

RESOLUTION NO. 43–FY2018

RELATIVE TO APPROVAL OF GWA's 2018 WATER RESOURCE MASTER PLAN (WRMP) UPDATE

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

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

WHEREAS, in 2006 the Guam Waterworks Authority completed a Water Resource Master Plan that attempted to document and assess GWA's water and wastewater system at the time and made certain assumptions of the systems capacity and operability to meet the Safe Drinking Water and Clean Water Acts from which recommendations for capital improvements were made and projected out over a 20-year period; and

WHEREAS, GWA's 2006 Water Resource Mater Plan was past due for updating thus GWA initiated steps in October 2015 to engage its Program Management Office through "Work Authorization 2015-07" to update the 2006 WRMP which was funded from USEPA State Revolving Fund; and

WHEREAS, the purpose of updating the WRMP was to give GWA an opportunity to review and document progress since 2006 plan, recognize that GWA infrastructure has since aged 10 years, account for impacts resulting from the US-Japan Security Consultative Committee's "2012 Roadmap Adjustment" that outlined the relocation of 5,000 Marines to Guam by 2023, evaluate the impacts of an increasing population, address new regulations that

require higher treatment levels for GWAs wastewater treatment plants as well as advance GWA's goals to continuously improve GWA's level of service from the 2006 levels; and

WHEREAS, the objectives and goals the WRMP Update intends to establish for GWA are to improve water quality and system capacity and reliability, reduce number of water outages, replace asbestos cement and galvanized steel water lines, rehabilitate/replace sewer lines and sewer lift stations, upgrade WW treatment plants to achieve Federal Permit compliance, and reduce wastewater overflows; and

WHEREAS, the 2018 WRMP Update also reviewed and assessed GWA's operational sustainability to maintain all assets, and recommended measures to accomplish this sustainability through expanding programmatic efforts in the areas of asset management, water loss control, fire hydrant repair/replacement and hydraulic modeling, just to name a few; and

WHEREAS, the WRMP Update summarizes that there are one hundred twenty four (124) new CIP projects recommended with an estimated total cost of Nine Hundred Eighty-Two Million Two Hundred Forty-Two Thousand Dollars ($982,242,000.00) along with twenty nine (29) existing CIP projects that are estimated to cost Two Hundred Seventy-Eight Million One Hundred Nineteen Thousand Dollars ($278,119,000.00) for a total capital cost for the next 20 year period of One Billion Two Hundred Sixty Million Three Hundred Sixty-One Thousand Dollars ($1,260,361,000.00) in 2018 dollars (See Exhibit A) ; and

WHEREAS, the 2018 WRMP Update further characterizes and quantifies the cost of the water and wastewater needs as; 1) court order related at an estimated One Hundred Nine Million Dollars ($109,000,000), 2) improvements for system reliability/quality at an estimated Ninety-Six Million Dollars ($96,000,000), upgrades associated with rehabilitating the systems or increasing capacity at an estimated Eight Hundred Thirty-Two Million Dollars ($832,000,000), and overall systems expansion at an estimated Two Hundred Eighteen Million Dollars ($218,000,000) in 2018 dollars (see Exhibit B); and

WHEREAS, the costs associated with the 2018 WRMP Update was further analyzed with experts in municipal financial planning from which the WRMP Update recommended

annual rate increases averaging 4-4.5% for the first seven years of the plan, then reducing to 3% throughout the remainder of the plan; and

WHEREAS, in an effort to bring awareness of the 2018 WRMP Update to the rate payers on Guam, GWA management along with support from GWA staff and Program Management Office personnel held village meetings in Dededo, Tamuning and Agat, made presentations in industry forums such as the Guam Contractor Association (GCA), Guam Society of Professional Engineer (GSPE) and Guam Hotel and Restaurant Association (GHRA), made presentation to legislative, Mayors Council members, and administrative government officials as well as provided the complete draft document on the GWA website, GWA offices, and village Mayor's offices for review and comment; and

WHEREAS, GWA management has compiled all questions or comments made during each of the awareness presentations (see summary in Exhibit C) and have determined there are no questions or comments that impacted the contents of the WRMP Update therefore the WRMP Update as prepared is being submitted for CCU approval; and

WHEREAS, GWA management will prepare an updated 5-Year Capital Improvements Plan (CIP), once the 2018 WRMP Update is approved, that details each of the capital projects and the funding sources which GWA management anticipates will come primarily from bonds that will be paid through rate payer revenues as well as with USEPA State Revolving Funds (SRF), Internally Funded CIP Funds (IFCIP), Federal Grants and possibly Federal Loans; 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 approves the 2018 Water Resources Master Plan Update that will be identified with "Final August 2018".
3. The CCU hereby further authorizes GWA management to implement the projects and programs called for in the plan in a manner consistent with the plan.

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

DULY AND REGULARLY ADOPTED, this 28th day of August 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson Secretary

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

///

///

///

Exhibit A (1 of 1)

Capital Improvement Projects Summary

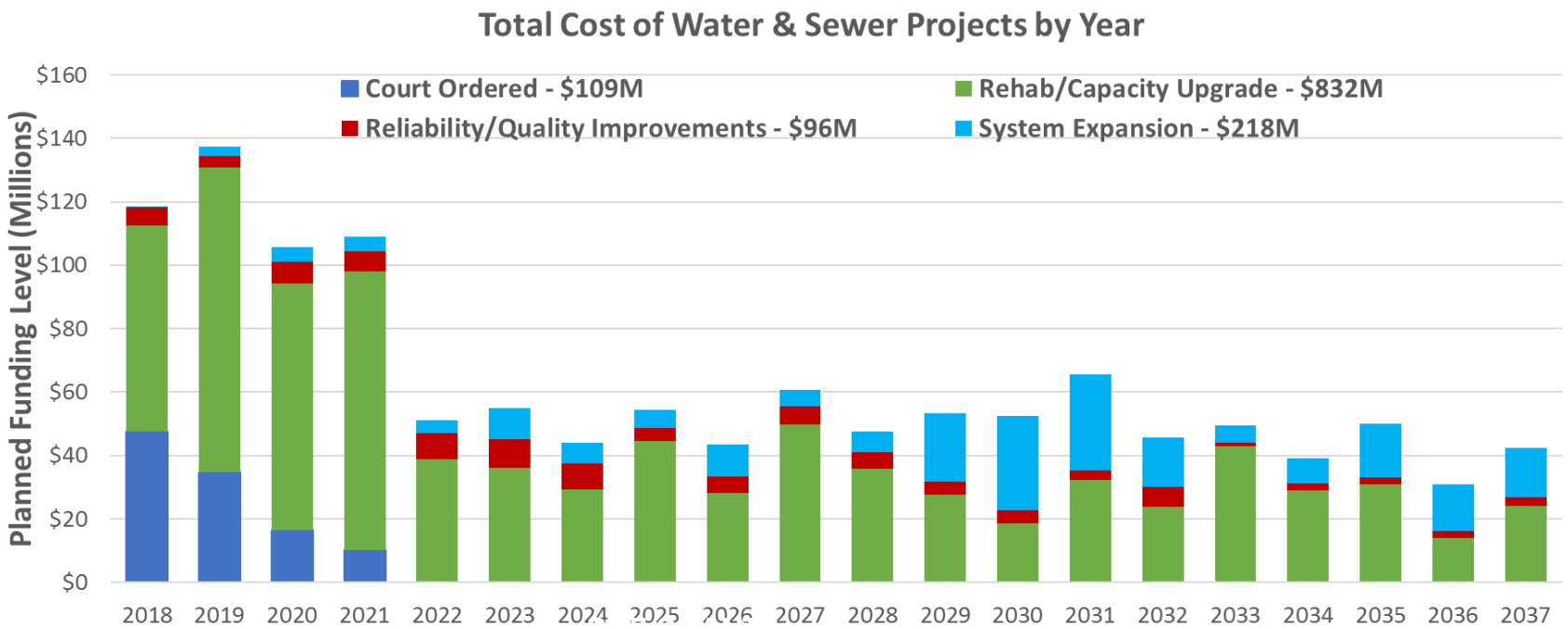
Project Category	Number of New Projects	Estimated Cost WRMPU Proposed CIP	Number of Ongoing Projects	Estimated Cost Current/Ongoing CIP
Water System Improvements				
Pipeline Projects	17	$204,402,000	2	$2,500,000
Storage Tank and BPS Projects	30	$120,082,000	5	$30,808,000
Water Production Projects	10	$123,216,000	3	$8,667,000
Other Water System Projects/Studies	5	$14,449,000	4	$5,500,000
Total Water System Improvements	62	$462,149,000	14	$47,475,000
Wastewater System Improvements				
Gravity Sewer Projects	27	$250,247,000	7	$69,230,000
Force main Projects	4	$22,498,000		
Lift Station Projects	3	$68,156,000	2	$4,293,000
Wastewater Treatment Facilities	9	$71,238,000	3	$151,946,000
Other Wastewater System Projects/Studies	5	$10,978,000		
Total Wastewater System Improvements	48	$423,117,000	12	$225,469,000
General Systems Improvements				
General Facilities / Equipment Improvements	10	$59,800,000	1	
SCADA / Electrical	4	$37,176,000	2	$5,175,000
Total General System Improvements	14	96,976,000	3	$5,175,000
Total (rounded)	124	$982,242,000	29	$278,119,000

Total Capital Improvement Program 2018 – 2037 = $ 1.26 billion

GUAM WATERWORKS AUTHORITY

Exhibit B (1 of 1)

Funding needed for improvements



Average Annual Funding
$118M/year for first 4 years
w/ ~ $40M/year DOD funding

Average Annual Funding
$49M/year

GUAM WATERWORKS AUTHORITY

EXHIBIT C
Water Resources Master Plan Update
Public Outreach Summary
June 26th to July 27th, 2018

Meeting 1 **June 26th Northern Village Meeting, Yigo Senior Center**

Number of attendees: 35
Questions / Comments: 3
Responses: 3
Summary:

- Status of Gill-Breeze subdivision
- Cost of water connection for new customers
- Change of use for existing customers on septic

Recommended Changes to WRMPU:

- No changes recommended

Meeting 2 **June 27th Southern Village Meeting, Agat Community Center**

Number of attendees: 5
Questions / Comments: 17
Responses: 17
Summary:

- Water supply issues to Talafofo
- Progress towards meeting the Stipulated Order requirements
- Issues with water outages in various areas
- Elimination of septic tanks
- Linking of GWA and DoD systems

Recommended Changes to WRMPU:

- No changes recommended

Meeting 3 **June 28th Guam Hotel and Restaurant Association (GHRA), Outrigger Resort**

Number of attendees: 85
Questions / Comments: 4
Responses: 4
Summary:

- Extent of water loss in GWA system
- Quality of pavement repair work
- Capacity of the Aquifer with respect to new development and military build-up

Recommended Changes to WRMPU:

- No changes recommended

Meeting 4 **June 28th Central Village Meeting, Tamuning Community Center**

Number of attendees: 15
Questions / Comments: 0
Responses: 0
Summary:

- No Questions/Comments received

Recommended Changes to WRMPU:

- No changes recommended

Meeting 5 **July 9th Legislature Meeting, CCU Board Room**

Number of attendees: 5
Questions / Comments: 11
Responses: 8
Summary:

- Plans for elimination of 2" water lines
- Impact of H2 visas on current project delivery
- Funding sources for proposed capital improvement projects
- Status of land issues for ongoing and proposed improvement projects
- Pace of increases in water and sewer bills
- Investigations into the use of bio-gas from GWA facilities

Recommended Changes to WRMPU:

- No changes recommended

Meeting 6 **July 17th Guam EPA, Department of Public Works and Governor's Chief of Staff, CCU Board Room**

Number of attendees: 5
Questions / Comments: 58
Responses: 46
Summary:

- Septic Tank Elimination Program
- Financial assistance with sewer connection fees
- Discussion on accomplishments with respect to 2006 Master Plan
- Current use and cost of water supplied by the Navy
- Current and planned integration of DoD facilities into the GWA network
- Water system sources and supply pressures
- Population growth and water use

Recommended Changes to WRMPU:

- No changes recommended

Meeting 7 **July 25th Guam Society of Professional Engineers, Westin Resort**

Number of attendees: 32
Questions / Comments: 14
Responses: 12
Summary:

- Potential water shortages and water supply
- Planned methods for CIP project delivery
- Leak detection and leakage reduction
- Current court orders and potential for future court orders
- Water and Sewer Rate comparison
- Upgrade of Hagatna Wastewater Treatment Plant

Recommended Changes to WRMPU:

- No changes recommended

Meeting 8 **July 26th Governor's Office / Cabinet, Adelup**

Number of attendees: ~ 20
Questions / Comments: 19
Responses: 15
Summary:

- Water Supply with respect to Ugum SWTP, water loss and new DoD production wells
- GWA projects and issues with pavement restoration
- Physical and cyber security of GWA facilities and systems
- Funding sources for proposed capital improvement projects
- Planned schedule for upgrade of the HWWTP

Recommended Changes to WRMPU:

- No changes recommended

Meeting 9 **July 27th Mayor's Council, CCU Board Room**

Number of attendees: ~ 17
Questions / Comments: 41
Responses: 21
Summary:

- Water tank construction, scheduling, type of construction (new or refurbishment)
- Change of use for existing customers on septic
- Plans for the upgrade of the HWWTP
- GWA projects and issues with pavement restoration
- Status of the existing Asan Springs water source
- GWA emergency communication SMS system

Recommended Changes to WRMPU:

- No changes recommended

Guam Waterworks Authority
Master Plan Update 2018
Download Summary

April 24, 2018- Tuesday	**April 25, 2018 - Wednesday**
1 - RE: 2018 Water Resources Master Plan From: manny apuron Email: mpapuron@guamwaterworks.org Company: Phone: 3006833 Date: April 23, 2018 2- RE: 2018 Water Resources Master Plan From: Andrew Foust Email: andrew.foust@mackayshields.com Company: MacKay Phone: 6097508371 Date: April 24, 2018 3- RE: 2018 Water Resources Master Plan From: Kurt Bilz Email: kbilz@brwncald.com Company: Brown and Caldwell Phone: 671 300 4221 Date: April 24, 2018 4- RE: 2018 Water Resources Master Plan From: Steve Limtiaco Email: slimtiaco@guampdn.com Company: Phone: 488-1419 Date: April 24, 2018 5 - RE: 2018 Water Resources Master Plan From: Manami eguchi Email: eg_manami@icloud.com Company: Phone: 3863383 6- RE: 2018 Water Resources Master Plan From: Francis Santos Email: fesantos57@gmail.com Company: Phone: 6714829355	7- RE: 2018 Water Resources Master Plan From: Clint Huntington Email: clintwhii@guam.net Company: private Phone: 671 686 3109 8 - RE: 2018 Water Resources Master Plan From: Chip Brown Email: cbrown@eaest.com Company: EA Engineering, Science, and Technology, Inc., PBC Phone: 671-646-5231 9 - RE: 2018 Water Resources Master Plan From: MICHAEL BORJA Email: MICHAEL.BORJA@LAND.GUAM.GOV Company: DEPARTMENT OF LAND MANAGEMENT, CHAMORRO LAND TRUST COMMISSION Phone: (671) 649-5381

April 26, 2018 - Thursday

10 - RE: 2018 Water Resources Master Plan
From: Shannon Groff
Email: shannon.groff@fitchratings.com
Company: Fitch Ratings
Phone: 415-732-5628

11 - RE: 2018 Water Resources Master Plan
From: Stephen Field
Email: stephen.field@citi.com
Company: Citigroup
Phone: 2068306002

12 - RE: 2018 Water Resources Master Plan
From: Stephen Field
Email: field.a.stephen@gmail.com
Company: Citi
Phone: 206-830-6002

13 - RE: 2018 Water Resources Master Plan
From: John I. Borja
Email: reporter4@glimpsesofguam.com
Company: Marianas Business Journal
Phone: 649-0883 ext. 125

April 27, 2018 - Friday

14 - RE: 2018 Water Resources Master Plan
From: Pete Diaz
Email: pete.diaz@aecom.com
Company: AECOM
Phone: 6174778327

15 - RE: 2018 Water Resources Master Plan
From: Tony Hughes
Email: tony.hughes@barclays.com
Company: Barclays
Phone: 415-274-5355

April 30, 2018 - Monday

16 - RE: 2018 Water Resources Master Plan
From: Tria Paulino
Email: tria.paulino@investguam.com
Company: GEDA
Phone: 671.647.4332

May 1, 2018 - Tuesday

17 - RE: 2018 Water Resources Master Plan
From: Jason Jaskowiak
Email: jjaskowiak@eaest.com
Company: EA Engineering
Phone: 671-929-9354

May 8, 2018 – Tuesday

18 - RE: 2018 Water Resources Master Plan
From: Esther Camacho
Email: esther.camacho@bsp.guam.gov
Company: Bureau of Statistics and Plans
Phone: 6714759680

May 10, 2018 – Thursday

19 - RE: 2018 Water Resources Master Plan
From: April Manibusan
Email: april.manibusan@bsp.guam.gov
Company: Bureau of Statistics and Plans
Phone: 671-475-9680

20 - RE: 2018 Water Resources Master Plan
From: Esther Camacho
Email: esther.camacho@bsp.guam.gov
Company: Bureau of Statistics and Plans
Phone: 6714759680

May 14, 2018 – Monday

21 - RE: 2018 Water Resources Master Plan
From: Nick Manley
Email: nmanley@hdrinc.com
Company: HDR, Inc.
Phone: 671-686-6425

May 15, 2018 – Tuesday
22 - RE: 2018 Water Resources Master Plan
From: Thomas Cruz
Email: thomas@guamwaterworks.org
Company: GWA
Phone: 300-6036

May 23, 2018 – Wednesday
23 - RE: 2018 Water Resources Master Plan
From: JOSEPHINE EVANGELISTA
Email: jevangelista@guamwaterworks.org
Company: GWA
Phone: 300-6037

24 - RE: 2018 Water Resources Master Plan
From: Barbara Cruz
Email: bccruz@guamwaterworks.org
Company: Guam Waterworks Authority
Phone: 300-6039

May 24, 2018 – Thursday
25 - RE: 2018 Water Resources Master Plan
From: Lynden Kobayashi
Email: lynden.kobayashi@wsp.com
Company: WSP USA Inc.
Phone: 646-6872

June 5, 2018 – Tuesday
26 - RE: 2018 Water Resources Master Plan
From: Dr. Joseph David L.G. Shimizu
Email: dlgshimizu@yahoo.com
Company:
Phone: 688-1946

27 - RE: 2018 Water Resources Master Plan
From: Dr. Joseph David L.G. Shimizu
Email: dlgshimizu@yahoo.com
Company:
Phone: 688-1946

June 11, 2018 – Monday
28 - RE: 2018 Water Resources Master Plan
From: jude calvo
Email: judecalvo@guamwaterworks.org
Company:
Phone: 300-6066

June 14, 2018 – Thursday
29 - RE: 2018 Water Resources Master Plan
From: Jeffrey Boblick
Email: jeffrey.boblick@gmail.com
Company:
Phone: 708-655-0103

30 - RE: 2018 Water Resources Master Plan
From: Jennifer Louise Dulla
Email: jenniferdulla@gmail.com
Company:
Phone: (671) 482-5556

June 15, 2018 – Friday
31 - RE: 2018 Water Resources Master Plan
From: Raeann Lefever
Email: rlefever@investguam.com
Company: Guam Economic Development Authority
Phone: 671-472-8931 . Ext. 377

June 18, 2018 – Monday
32 - RE: 2018 Water Resources Master Plan
From: Tricee Limtiaco
Email: tlimtiaco@gpagwa.com
Company: Guam Power Authority
Phone: 6716483222

June 20, 2018 – Wednesday
33 - RE: 2018 Water Resources Master Plan
From: Kevin Bock
Email: kevin.bock@macquarie.com
Company: Macquarie Investment Management
Phone: 215-255-8556

June 22, 2018 – Friday
34 - RE: 2018 Water Resources Master Plan
From: M. Noel DelRosario
Email: ndelrosario@hawaiienergysystems.com
Company: Hawaii Energy Systems
Phone: 6717875309

35 - RE: 2018 Water Resources Master Plan
From: M. Noel DelRosario
Email: ndelrosario@hawaiienergysystems.com
Company: Hawaii Energy Systems
Phone: 6717875309

June 25, 2018 – Monday
36 - RE: 2018 Water Resources Master Plan
From: Mary Jane T. Perez
Email: mjperez504@gmail.com
Company:
Phone: 864-1864

June 28, 2018 – Thursday
37 - RE: 2018 Water Resources Master Plan
From: Senator Tom Ada
Email: tom@senatorada.org
Company: Guam Legislature
Phone: 473-3301

July 4, 2018 – Wednesday
38 - RE: 2018 Water Resources Master Plan
From: Robert Young
Email: robert@economists.com
Company: Economists.com
Phone: 503-274-0689

July 7, 2018 – Saturday
39 - RE: 2018 Water Resources Master Plan
From: Senator Tom Ada
Email: tom@senatorada.org
Company: Guam Legislature
Phone: 473-3301

July 12, 2018 – Thursday
40 - RE: 2018 Water Resources Master Plan
From: Brett Railey
Email: brett@guamwaterworks.org
Company: GWA
Phone: 671-300-6040

July 16, 2018 – Monday
41 - RE: 2018 Water Resources Master Plan
From: jude calvo
Email: judecalvo@guamwaterworks.org
Company: Guam Waterworks Authority
Phone: 300-6066

July 18, 2018 – Wednesday
42 - RE: 2018 Water Resources Master Plan
From: Mark Anthony Ancheta
Email: m.ancheta@smccguam.com
Company: Sumitomo Mitsui Construction Co., Ltd.
Phone: 671-649-7521

July 25, 2018 – Wednesday
43 - RE: 2018 Water Resources Master Plan
From: Walter B. Perry
Email: perry@guam.net
Company: Pernix Guam, LLC.
Phone: (671) 888-0801

44 - RE: 2018 Water Resources Master Plan
From: AJ Layson
Email: andrewl@tg-engr.com
Company: TG Engineers PC
Phone: 6716470808

July 27, 2018 – Friday
45 - RE: 2018 Water Resources Master Plan
From: Mike Walworth
Email: mwalworth@aqua-aerobic.com
Company: Aqua-Aerobic Systems
Phone: 815-218-9045

July 31, 2018 – Tuesday
46 - RE: 2018 Water Resources Master Plan
From: Glen Davies
Email: gdavies@hdcc.com
Company: HDCC Guam, LLC
Phone: 6718980057

47 - RE: 2018 Water Resources Master Plan
From: Ken Rekdahl
Email: kmrekdahl@dcaguam.com
Company: DCA
Phone: 671-477-7991

August 23, 2018 – Thursday
48 -RE: 2018 Water Resources Master Plan
From: Mariano Cruz
Email: marianofcruz@yahoo.com
Company:
Phone: 472-5965

Guam Waterworks Authority
Master Plan Update 2018
Download Summary

Total number of Downloaded copies	48
Comments received via email/Website submittal	0
Recommended Changes to WRMPU:	No changes recommended

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 Discussion

Resolution 44-FY2018

Relative to Contract Approval for the Asan-Adelup-Hagatna, Route 1 Sewerline Rehabilitation and Replacement Project

What is the project's objective and is it necessary and urgent?
The objective of this project is to improve the sewer collection system, which included rehabilitating, repairing and/or replacing sewer manholes and over 5,000 linear feet of gravity sewer line along Route 1 in the village of Asan and Hagatna. These sewer infrastructure elements have been identified by GWA, through an SSES investigation, as requiring significant improvement to prevent adverse impact to the subsurface environment and to operation of the collection system. Successful completion of this project will result in restoring this part of the collection system to proper operation, and improve maintenance of the sewer collection system. USEPA agree that efforts to rehabilitate, repair or replace the sewer line are urgent and necessary.

Where is the project located?
This project is located along Route 1, from the Asan "War in the Pacific" National Historic Park to the Fonte River in Hagatna. Construction activities will be limited to the sewer infrastructure elements within the established government easements.

How much will it cost?
The construction services contract was proposed by Infratech at a total of Six Million Two Hundred Seventy-Five Thousand Seven Hundred Eighty-Two Dollars and Eighty-Eight Cents **(**$6,275,782.88). This contract amount, which is primarily based on unit pricing, includes the furnishing of all labor, tools, equipment and materials, and agency coordination needed to complete the sewer infrastructure replacement in the aforementioned locations.

GWA management is also seeking a 10% contingency in the amount of Six Hundred Twenty-Seven Thousand Five Hundred Seventy-Eight Dollars and Twenty-Nine Cents **(**$627,578.29), which brings the total authorized funding amount to Six Million Nine Hundred Three Thousand Three Hundred Sixty-One Dollars and Seventeen Cents ($6,903,361.17) for the project.

When will it be completed?
The construction contract duration for this project is 450 calendar days. Estimated completion of construction is beginning of 2020.

What is the funding source?
The funding for this project will be from USEPA SRF Grant Funds and, if necessary, GWA Bond Funds with a maximum project budget of Six Million Nine Hundred Three Thousand Three Hundred Sixty-One Dollars and Seventeen Cents ($6,903,361.17).

The RFP/BID responses (if applicable):
Seven (7) bid packages were picked up, only two (2) bids were received.

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

RESOLUTION NO. 44–FY2018

RELATIVE TO CONTRACT APPROVAL FOR THE ASAN-ADELUP-HAGATNA, ROUTE 1 SEWER LINE REHABILITATION AND REPLACEMENT PROJECT S15-002-EPA

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

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

WHEREAS, GWA has received a grant from USEPA under the State Revolving Fund program to improve the sewer collection system, which included 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, which included over 3,600 linear feet of gravity sewer line along Route 1 in Asan, and over 1,400 liner feet in Adelup, and the intent of this project is to rehabilitate, repair or replace these sections; and

WHEREAS, GWA and USEPA agreed that efforts to rehabilitate, repair or replace these sewer lines are necessary to properly operate and improve the maintenance of the sewer collection system, and the first order of business in doing so was through a scope of design services that includes general civil engineering, geotechnical engineering, and archeological investigation for wastewater collection system evaluation, analysis and design; and

WHEREAS, in June 2015 GWA Management began the procurement process to find a consulting engineering team to design the sewer rehabilitation and replacement, and via Resolution No. 02-FY2016, approved by the CCU in October 2015, GWA Management was authorized to enter into a contract with HDR Engineering, Inc. (HDR) to design the sewer rehabilitation and replacement; and

WHEREAS, in December of 2015 GWA Management entered into a contract with HDR to design the sewer rehabilitation and replacement, and in April of 2017 the final design was completed; and

WHEREAS, on May 12, 2017, GWA advertised the Invitation to Bid (IFB-06-ENG-2017) for the Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement soliciting bid proposals from experienced and responsive bidders to repair and/or replace segments of gravity sewer lines and manholes in the villages of Asan and Hagatna, but ultimately received no responsive and responsible bids; and

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

WHEREAS, following the Invitation to Re-Bid, GWA discussed with contractors the challenges that may have prevented them from bidding, reviewed all the available information, and developed two separate bids for the contractors to bid on, Schedule A which involved Cured In Place Pipe (CIPP) and Schedule B which involved open cut trenching; and

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

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

WHEREAS, IFB packages were obtained by multiple interested parties, from which GWA received bid proposals from two (2) parties (SEE EXHIBIT A – Abstract of Bids) before the bid proposal deadline, with both parties submitting a proposal for Schedule A, and no bids received for Schedule B; and

WHEREAS, the project Design Engineer, in conjunction with GWA, analyzed the bid proposal received on July 13, 2018 and determined that Infratech International, LLC (Infratech) for Schedule A submitted the lowest responsive and responsible bids and met all the bid requirements set forth by GWA (SEE EXHIBIT B – Evaluation); and

WHEREAS, GWA Management finds Infratech's bid proposal for Schedule A in the amount of Five Million Nine Hundred Twenty Thousand Dollars and Zero Cents ($5,920,000.00), as well as Additive Bid No. 2 in the amount of Three Hundred Fifty-Five Thousand Seven Hundred Eighty-Two Dollars and Eighty-Eight Cents ($355,782.88), acceptable (SEE EXHIBIT C – Bid Proposal); and

WHEREAS, GWA Management seeks CCU approval of the total fee proposal for Schedule A and Additive Bid No. 2 in the amount of Six Million Two Hundred Seventy-Five Thousand Seven Hundred Eighty-Two Dollars and Eighty-Eight Cents **(**$6,275,782.88); and

WHEREAS, GWA Management further seeks CCU approval of the total fee proposal for Schedule A and Additive Bid No. 2 in the amount of Six Million Two Hundred Seventy-Five Thousand Seven Hundred Eighty-Two Dollars and Eighty-Eight Cents ($6,275,782.88) plus a ten percent (10%) contingency of Six Hundred Twenty-Seven Thousand Five Hundred Seventy-Eight Dollars and Twenty-Nine Cents **(**$627,578.29), to bring the total authorized funding amount to Six Million Nine Hundred Three Thousand Three Hundred Sixty-One Dollars and Seventeen Cents ($6,903,361.17); and

WHEREAS, funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds applicable to the project; and

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms and conditions set by GWA relative to commencement of work activities are fair and reasonable and serve as a measure of Quality Assurance/Quality Control (QA/QC).
3. The CCU hereby authorizes the management of GWA to accept the bid proposal from "Infratech International, LLC." For Schedule A and Additive Bid No. 2.
4. The CCU hereby further authorizes the management of GWA to enter into a contract with "Infratech International, LLC" in the amount of Six Million Two Hundred Seventy-Five Thousand Seven Hundred Eighty-Two Dollars and Eighty-Eight Cents **(**$6,275,782.88).
5. The CCU hereby further approves the funding total of Six Million Two Hundred Seventy-Five Thousand Seven Hundred Eighty-Two Dollars and Eighty-Eight Cents **(**$6,275,782.88), plus a ten percent (10%) contingency of Six Hundred Twenty-Seven Thousand Five Hundred Seventy-Eight Dollars and Twenty-Nine Cents **(**$627,578.29), for a total authorized funding amount of Six Million Nine Hundred Three Thousand Three Hundred Sixty-One Dollars and Seventeen Cents ($6,903,361.17).
6. The CCU hereby further approves the funding for this project 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 28th day of August, 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson 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: _____

///

///

Exhibit A (1 of 1)

ORIGINAL

GUAM WATERWORKS AUTHORITY
ABSTRACT OF BIDS

Project Name: **ASAN-ADELUP-HAGATNA, ROUTE 1 SEWERLINE REHABILITATION AND REPLACEMENT (RE-BID2)**

Bid Opening Date: July 13, 2018
Time: 3:00 pm

Project Number: S15-002-EPA IFB NO.: IFB-05-ENG-2018

	Qualified Bidders Name	Section A-5 Bid Bond	CERTIFICATIONS														SCHEDULE A			SCHEDULE B		
			Bidder Qualification Statement	Non-Collusion Affidavit	Equal Employment Opportunity	Non-Segregated Facilities	Non-Employment of Sexual Offender	Wage & Benefit Determination	Major Shareholders Affidavit	Special Instruction to Bidders	Addendum 1	Addendum 2	Addendum 3	Addendum 4	Addendum 5	BASE BID	ADDITIVE BID NO. 1	ADDITIVE BID NO. 2	BASE BID	ADDITIVE BID NO. 1	ADDITIVE BID NO. 2
1.	IAN CORPORATION																					
2.	CORE TECH INTERNATIONAL CORP.	FIDELITY AND DEPOSIT COMPANY OF MARYLAND, 15%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$8,754,800.00	$2,632,500.00	$272,500.00	No Bid	No Bid	No Bid
3.	GIANT CONSTRUCTION CORP.																					
4.	MCCONNELL DOWELL CONSTRUCTORS, LTD																					
5.	PROPACIFIC BUILDER CORP.																					
6.	PACIFIC DEVELOPMENT/INSITUFORM																					
7.	INFRATECH INTL., INC.	PACIFIC INDEMNITY INSURANCE COMPANY, 15%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$5,920,000.00	$2,898,797.80	$355,782.98	No Bid	No Bid	No Bid
	GWA Estimate															$6,542,177.40	$1,171,708.05	$284,129.80				

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

Tabulated by:
GEORGE WATSON
(Name and Signature)

GWA Procurement Representative:
Victoria Hecocke
(Name and Signature)

Witnesses:
K. Naresh Kumar

CCU Regular Meeting Aug 28, 2018 - GWA

Doc. No. 34GL-18-2268.*

Exhibit B (1 of 15)

July 24, 2018

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

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

Dear Mr. Cruz,

HDR has reviewed the two (2) bid submissions submitted for the second re-bid attempt for the Asan-Adelup-Hagatna Sewer Line Rehabilitation and Replacement project from the following construction contractors:

1. Infratech International, LLC
2. Core-Tech/Hawaiian Dredging

All bid submissions included all of the required bidding forms to be submitted as part of the bid package. All bonding requirements have been met by both contractors. There were two bid schedules, Bid Schedule “A” and Bid Schedule “B”, that were advertised as part of this bid solicitation. There were no bids provided for Schedule “B”, therefore any further reference in this letter to the bid schedule is to the Schedule “A” that was submitted by both contractors.

The bid schedules for both contractors were tabulated, reviewed and are included herein with this letter for your review. The following observations were made while tabulating each Contractor’s bid:

Infratech, International, LLC:

1. Overall, the pricing for the base bid line items were close to the engineer’s estimate, however the following items were noted for GWA to be aware of, due to their significant variance from the engineer’s estimate: Bid Item No. 2 (Unclassified Trench Excavation, 0-10’), Bid Item No. 3 (Unclassified Trench Excavation, 10-20’) and Bid Item No. 17 (A.C. Pavement Resurfacing). The engineer’s estimate for these prices were based upon review of the previous bids received by other contractor’s during the bidding of the Asan Sewer Break Repair, therefore these unit costs provided are much lower.

hdrinc.com

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

Exhibit B (2 of 15)

2. On the base bid, line item 28, the unit price provided on the bid schedule is typed as $970/LF, however after reviewing the total price and the quantity provided, it was determined that the unit cost should have been $9.70/LF.
3. The summary totals found on page 21 of the bid schedule, the total listed for the base bid is shown to be $5,224,389.99, which is incorrect and should read $5,920,000.00 as shown on page 13 of the bid schedule. This matches what was tabulated using the unit prices given in the bid schedule.
4. For Additive Bid #1, the following bid items have a significant variance from the engineer's estimate: Bid Item No. 2 (10-20'), Bid Item No. 7 (A.C. Pavement Resurfacing), Bid Item No. 8 (Milling Asphalt) and Bid Item No. 9 (Asphalt Friction Course). The engineer's estimate for these prices were based upon review of the previous bids received by other contractor's during the bidding of the Asan Sewer Break Repair, therefore these unit costs provided are much lower. For Bid Item No. 8 & 9, it was noticed that the unit price for these varies drastically lower than from the same bid line items provided under the base bid.

Coretech/Hawaiian Dredging, LLC:

1. The bid proposal had most of the unit prices to the nearest $0.0001 of accuracy. Even with this level of accuracy on the bid items unit prices and multiplying them against the unit quantities, there were some total bid item prices that did not match the totals provided on the bid schedule. These amounts were off by one to a few cents and caused the bid tabulation sum total for Coretech/Hawaiian Dredging to not match their submitted bid schedule totals.
2. For the base bid, the following items were noted due to their significant variance from the engineer's estimate: Bid Item No. 2 (Unclassified Trench Excavation, 0-10'). As stated earlier the engineer's estimate for these prices were based upon review of the previous bids received by other contractor's during the bidding of the Asan Sewer Break Repair, therefore these unit costs provided are much lower.
3. For additive bid #1, the following items were noted due to their significant variance from the engineer's estimate: Bid Item No. 2 (Unclassified Trench Excavation, 10-20'). As stated earlier the engineer's estimate for these prices were based upon review of the previous bids received by other contractor's during the bidding of the Asan Sewer Break Repair, therefore these unit costs provided are much lower.

Additional project reference verification was made on Infratech International, LLC and specifically with their proposed subconsultant, Allied Trenchless. Contact was attempted with all of the listed past project clients that Cured in Place Piping (CIPP) was conducted, but only one project reference was able to be verified. That project was with the Federal Highway Administration (FHWA) and was the WA PRA OLYM 12(2) Hurricane Ridge Rd, Phase II project. This project is still currently under construction and consists of CIPP on 18-24 in Corrugated Metal Pipe and 36-48 inch concrete pipe using UV cured in place method. I spoke with Mr. Mike Nemy with FHWA and he without hesitation gave a high recommendation for Allied Trenchless. No other client contacts returned my calls to verify the others projects and their satisfaction with the work.

Exhibit B (3 of 15)

A request was made of Infratech International, LLC and Allied Trenchless for them to provide resumes for both the CIPP Work Supervisor, CIPP work crew member and the lateral reinstatement personnel to verify they meet the minimum requirements as listed in the Contractor qualifications found in Specification Section 33 01 30.72 or Section 33 01 30.73. These resumes were provided and are included herein for your reference. Allied Trenchless meets the minimum project linear footage requirements of the CIPP Work Supervisor and the CIPP Work crew member. The CIPP Work crew member is the lateral reinstatement person, however from the resume it was not able to be determined if they meet the minimum requirements, but it is expected from the listing of the projects that they do.

Listed below is a summary table of the various bid options and their respective totals for both bidders:

	Infratech International, LLC	Coretech/Hawaiian Dredging, LLC
Base Bid (Basis of Award)	**$5,920,000.00**	**$8,754,800.00**
Base Bid + Additive Bid #1	$8,818,797.81	$11,387,300.00
Base Bid + Additive Bid #2	$6,275,782.88	$9,027,300.00
Base Bid + Additive Bid #1 + Additive Bid #2	$9,174,580.69	$11,659,800.00

The basis of award for this project was the base bid, which resulted in the lowest bidder to be Infratech International, LLC. After reviewing the two bid options, Additive Bid #1 by Infratech International is $1.8 million higher from the engineer's estimate and therefore is not recommended to be included in this award. Additive Bid #2, although higher than the engineer's estimate, is recommended to be considered at this time, if it is within the overall budget that GWA has for this project. This additive bid would allow for GWA to have a good look at the condition of the siphon that is under the Fonte River and then be able to decide what needs to be done, if anything, in any future project(s) that will continue the repair or replacement of the rest of the overall Route 1 project limits that were excluded from this contract package, but are within the overall design project.

If you should have further questions, please feel free to call me.

Sincerely,

HDR Engineering, Inc.

Nick Manley
Project Manager

Exhibit B (4 of 15)

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

HDR Project No. 10053963
7/24/2018

Bid Tabulation

SCHEDULE A - Base Bid Description of Work:

Line A Work (SMH 1399Asan to Asan Pump Station)

Work consists of replacement of 18-inch and 20-inch diameter asbestos cement pipe (ACP) gravity sewer lines with new 18-inch and 20-inch diameter polyvinyl chloride (PVC) sewer lines, respectively, reconnecting sewer laterals after new pipe installation is complete, removing and disposing of 18-inch and 20-inch diameter ACP, abandoning 12-inch PVC sewer lines, cleaning existing 14-inch, 16-inch, 18-inch, and 20-inch diameter gravity sewer lines and rehabilitating those lines with cured-in-place pipe (CIPP) liner, reinstating sewer laterals after CIPP rehabilitation is complete, rehabilitating manholes, and providing temporary bypassing and traffic control as necessary to complete the replacement and rehabilitation work.

			Engineer's Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
Item No.	Description	Unit	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
1	Mobilization and Demobilization	Lump Sum	$ 594,743.40	1	$ 594,743.40	$ 911,001.55	1	$ 911,001.55	$ 346,337.14	1	$ 346,337.14	$ 1,475,665.9669	1	$ 1,475,665.97
2	Unclassified Trench Excavation for Pipe Repair Work, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (0'-10' Depth)	Lin. Ft.	$ 2,500.00	458	$ 1,145,000.00	$ 478.41	458	$ 219,112.97	348.69	458	159,700.02	608.1352	458	278,525.92
3	Unclassified Trench Excavation for Pipe Repair Work, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (10'-20' Depth)	Lin. Ft.	$ 3,000.00	223	$ 669,000.00	$ 1,471.67	223	$ 328,182.27	810.64	223	180,772.72	2,132.6987	223	475,591.81
4	Dewatering and dewatering effluent disposal	Lump Sum	$ 135,000.00	1	$ 135,000.00	$ 128,110.11	1	$ 128,110.11	$ 154,423.87	1	$ 154,423.87	$ 101,796.3459	1	$ 101,796.35
5	Removal and disposal of existing 12-inch diameter asbestos cement pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 127.00	458	$ 58,166.00	$ 311.93	458	$ 142,865.27	379.80	458	173,948.40	244.0658	458	111,782.14
6	Removal and disposal of existing 12-inch diameter polyvinyl chloride pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 20.00	152	$ 3,040.00	$ 37.01	152	$ 5,625.88	68.65	152	10,434.80	5.3748	152	816.97
7	Removal and disposal of existing 18-inch diameter asbestos cement pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 253.00	157	$ 39,721.00	$ 396.23	157	$ 62,207.98	461.43	157	72,444.51	331.0284	157	51,971.46
8	Removal and disposal of existing 20-inch diameter asbestos cement pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 329.00	66	$ 21,714.00	$ 451.34	66	$ 29,788.48	483.18	66	31,889.88	419.5012	66	27,687.08
9	Abandonment of 12-inch diameter PVC pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 8.00	321	$ 2,568.00	$ 55.04	321	$ 17,668.35	77.63	321	24,919.23	32.4532	321	10,417.48
10	Abandonment of sewer manhole and all incidentals required to complete the work.	Ea.	$ 1,300.00	2	$ 2,600.00	$ 2,293.10	2	$ 4,586.20	3,768.31	2	7,536.62	817.8855	2	1,635.77
11	Crushed rock bedding including compaction and woven geotextile fabric for 16-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 63.00	458	$ 28,854.00	$ 52.17	458	$ 23,895.37	44.10	458	20,197.80	60.2466	458	27,592.94
12	Crushed rock bedding including compaction and woven geotextile fabric for 18-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 76.00	157	$ 11,932.00	$ 53.82	157	$ 8,449.58	45.24	157	7,102.68	62.3979	157	9,796.47
13	Crushed rock bedding including compaction and woven geotextile fabric for 20-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 83.00	66	$ 5,478.00	$ 71.28	66	$ 4,704.40	49.38	66	3,259.08	93.1776	66	6,149.72
14	Pipe Repair; install new 16" PVC pipe (AWWA C-905, DR 25) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in place complete. (0'-10' Depth)	Lin. Ft.	$ 86.00	458	$ 39,388.00	$ 230.48	458	$ 105,560.37	199.85	458	91,531.30	261.1123	458	119,589.43
15	Pipe Repair; install new 18" PVC pipe (AWWA C-905, DR 18) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in place complete. (10'-20' Depth)	Lin. Ft.	$ 101.00	157	$ 15,857.00	$ 1,004.75	157	$ 157,746.15	366.99	157	57,617.43	1,642.5151	157	257,874.87
16	Pipe Repair; install new 20" PVC pipe (AWWA C-905, DR 18) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in place complete. (10'-20' Depth)	Lin. Ft.	$ 127.00	66	$ 8,382.00	$ 369.61	66	$ 24,394.22	453.65	66	29,940.90	285.5688	66	18,847.54
17	A.C. Pavement Resurfacing, including pavement transitions, prime coat, tack coat, traffic striping, miscellaneous restoration, and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 202.00	450	$ 90,900.00	$ 265.67	450	$ 119,552.18	90.09	450	40,540.50	441.2530	450	198,563.85
18	Milling Asphalt Friction Course, including all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 100.00	126	$ 12,600.00	$ 317.83	126	$ 40,046.11	141.99	126	17,890.74	493.6625	126	62,201.48

HDR

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

Exhibit B (5 of 15)

HDR Project: 10026963
7/24/2018

Item No.	Description	Unit	Engineer's Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
			Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
19	Asphalt Friction Course, including pavement transitions and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 140.00	261	$ 36,540.00	$ 229.49	261	$ 59,897.62	108.42	261	28,297.62	350.5656	261	91,497.62
20	Sewer Line Cleaning of existing 14-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 22.00	1,153	$ 25,366.00	$ 13.13	1,153	$ 15,140.91	18.95	1,153	21,849.35	7.3135	1,153	8,432.47
21	Sewer Line Cleaning of existing 16-inch Asbestos Cement Pipe (ACP) and 16-inch Polyvinyl Chloride (PVC) pipe sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 22.00	815	$ 17,930.00	$ 14.34	815	$ 11,685.55	19.90	815	16,218.50	8.7762	815	7,152.60
22	Sewer Line Cleaning of existing 18-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 33.00	915	$ 30,195.00	$ 15.63	915	$ 14,297.61	19.55	915	17,888.25	11.7016	915	10,706.96
23	Sewer Line Cleaning of existing 20-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 39.00	35	$ 1,365.00	$ 41.60	35	$ 1,455.91	32.00	35	1,120.00	51.1946	35	1,791.81
24	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 14" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	1,153	$ 13,836.00	$ 8.94	1,153	$ 10,302.52	12.02	1,153	13,859.06	5.8508	1,153	6,745.97
25	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	815	$ 9,780.00	$ 10.14	815	$ 8,265.53	12.97	815	10,570.55	7.3135	815	5,960.50
26	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 18" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	915	$ 10,980.00	$ 10.69	915	$ 9,784.19	12.61	915	11,538.15	8.7762	915	8,030.22
27	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 20" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	35	$ 420.00	$ 30.69	35	$ 1,074.11	24.81	35	868.35	36.5676	35	1,279.87
28	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 14" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	2,306	$ 27,672.00	$ 8.51	2,306	$ 19,616.57	9.70	2,306	22,368.20	7.3135	2,306	16,864.93
29	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	1,630	$ 19,560.00	$ 9.71	1,630	$ 15,832.35	10.65	1,630	17,359.50	8.7762	1,630	14,305.21
30	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 18" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	1,830	$ 21,960.00	$ 10.26	1,830	$ 18,783.94	10.29	1,830	18,830.70	10.2389	1,830	18,737.19
31	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 20" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	70	$ 840.00	$ 18.45	70	$ 1,291.17	14.95	70	1,046.50	21.9406	70	1,535.84
32	Installation of cured-in-place pipe (CIPP) lining in existing 14-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 320.00	1,153	$ 368,960.00	$ 301.25	1,153	$ 347,339.00	361.15	1,153	416,405.95	241.3461	1,153	278,272.05
33	Installation of cured-in-place pipe (CIPP) lining in existing 16-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 330.00	815	$ 268,950.00	$ 346.76	815	$ 282,608.26	408.29	815	332,756.35	285.2272	815	232,460.17
34	Installation of cured-in-place pipe (CIPP) lining in existing 18-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 367.00	915	$ 335,805.00	$ 373.17	915	$ 341,453.62	483.06	915	441,999.90	263.2867	915	240,907.33

Exhibit B (6 of 15)

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

HDR Project: 10026963
7/24/2018

Item No.	Description	Unit	Engineer's Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
			Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
35	Installation of cured-in-place pipe (CIPP) lining in existing 20-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 405.00	35	$ 14,175.00	$ 796.43	35	$ 27,875.17	788.38	35	27,593.30	804.4871	35	28,157.05
36	Reinstatement of existing sewer laterals upon completion of CIPP lining installation, and all incidentals, in place complete.	Ea.	$ 1,012.00	20	$ 20,240.00	$ 2,534.51	20	$ 50,690.22	$ 4,337.67	20	$ 86,753.40	$ 731.3519	20	$ 14,627.04
37	Rehabilitation of Sewer Manholes with epoxy coating, including cleaning of manhole, bench repair, surface preparation, cementitious underlayment, epoxy topcoat, testing, and other items as necessary to complete the work.	Vert. Ft.	$ 1,100.00	18	$ 19,800.00	$ 4,222.83	18	$ 76,010.90	766.46	18	13,796.28	7,679.1951	18	138,225.51
38	Rehabilitation of Sewer Manholes; patching surface defects and other items as necessary to complete the work.	Ea.	$ 5,500.00	4	$ 22,000.00	$ 4,044.41	4	$ 16,177.64	$ 4,578.33	4	$ 18,313.32	$ 3,510.4892	4	$ 14,041.96
39	Cast iron manhole frame and cover, 25-inch diameter, including grade adjustment rings where required, and other items as necessary to complete the work.	Ea.	$ 900.00	18	$ 16,200.00	$ 3,146.80	18	$ 56,642.32	$ 4,747.44	18	$ 85,453.92	$ 1,546.1511	18	$ 27,830.72
40	Cast iron manhole frame and cover, 30-inch diameter, including grade adjustment rings where required, and other items as necessary to complete the work.	Ea.	$ 1,020.00	1	$ 1,020.00	$ 4,009.92	1	$ 4,009.92	$ 5,895.33	1	$ 5,895.33	$ 2,124.5115	1	$ 2,124.51
41	Sewer manhole concrete collar, including reinforcing steel, borrow material where required, and other items as necessary to complete the work.	Ea.	$ 900.00	19	$ 17,100.00	$ 3,146.04	19	$ 59,774.67	$ 5,251.09	19	$ 99,770.71	$ 1,040.9807	19	$ 19,778.63
42	Sewer Flow Control, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Lump Sum	$ 380,000.00	1	$ 380,000.00	$ 1,023,176.95	1	$ 1,023,176.95	294,146.34	1	294,146.34	1,752,207.5657	1	1,752,207.57
43	Traffic Control Work, including obtaining approvals, redesign/modification of traffic control plans for the contractor's convenience, traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Lump Sum	$ 391,000.00	1	$ 391,000.00	$ 226,703.42	1	$ 226,703.42	145,982.52	1	145,982.52	307,424.3218	1	307,424.32
44	Point Repair for 14-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (4 LF pipe section or less, per line segment) (0'-10' Depth)	Ea.	$ 4,950.00	5	$ 24,750.00	$ 16,359.22	5	$ 81,796.09	23,602.76	5	118,013.80	9,115.6755	5	45,578.38
45	Extra Length Point Repair for 14-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,320.00	321	$ 423,720.00	$ 1,262.99	321	$ 405,420.98	$ 1,568.59	321	$ 503,517.39	$ 957.3974	321	$ 307,324.57
46	Point Repair for 16-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (4 LF pipe section or less, per line segment) (0'-10' Depth)	Ea.	$ 5,060.00	4	$ 20,240.00	$ 14,764.01	4	$ 59,056.03	13,747.56	4	54,990.24	15,780.4554	4	63,121.82
47	Extra Length Point Repair for 16-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,320.00	305	$ 402,600.00	$ 1,424.55	305	$ 434,488.73	$ 1,705.88	305	$ 520,293.40	$ 1,143.2264	305	$ 348,684.05
48	Point Repair for 18-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (4 LF pipe section or less, per line segment) (0'-10' Depth)	Ea.	$ 5,500.00	5	$ 27,500.00	$ 46,334.60	5	$ 231,673.00	33,399.22	5	166,996.10	59,269.9800	5	296,349.90
49	Extra Length Point Repair for 18-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,430.00	351	$ 501,930.00	$ 2,063.82	351	$ 724,400.40	$ 1,670.24	351	$ 586,254.24	$ 2,457.3976	351	$ 862,546.56

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

Exhibit B (7 of 15)

HDR Project: 10026963
7/24/2018

Item No.	Description	Unit	Engineer's Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
			Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
50	Sewer Flow Control for Point Repairs of 14-inch, 16-inch, and 18-inch sewer pipe for every 4 LF of point repair, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Ea.	$ 11,000.00	14	$ 154,000.00	$ 15,734.58	14	$ 220,284.10	14,582.88	14	204,160.32	16,886.2776	14	236,407.89
51	Traffic Control Work for Point Repairs, including traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Ea.	$ 2,200.00	14	$ 30,800.00	$ 10,492.36	14	$ 146,893.04	13,186.06	14	184,604.84	7,798.6604	14	109,181.25
	SCHEDULE A - BASE BID (TOTAL Items 1 through 51, inclusive)				**$ 6,542,177.40**			**$ 7,337,399.85**			**$ 5,920,000.00**			**$ 8,754,799.70**
	BASE BID (BASIS OF AWARD) =				**$ 6,542,177.40**			**$ 7,337,399.85**			**$ 5,920,000.00**			**$ 8,754,799.70**
	BASE BID + ADDITIVE BID #1 =				**$ 7,713,885.45**			**$ 8,370,267.78**			**$ 8,818,797.81**			**$ 11,387,299.75**
	BASE BID + ADDITIVE BID #1 + ADDITIVE BID #2 =				**$ 7,948,010.25**			**$ 8,684,409.22**			**$ 9,174,580.69**			**$ 11,659,799.75**

Exhibit B (8 of 15)

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

HDR Project: 10026963
7/24/2018

Bid Tabulation

SCHEDULE A - Additive Bid #1 Description of Work:

Line B Work (SMH 13ASAN to SMH 350AHAGA)

Work consists of cleaning existing 16-inch and 24-inch diameter gravity sewer lines, rehabilitating approximately 16-inch and 24-inch diameter sewer lines with cured-in-place pipe (CIPP) liner, reinstating sewer laterals after CIPP rehabilitation is complete, replacing sewer manhole concrete collars, and providing temporary bypassing and traffic control as necessary to complete the rehabilitation work.

Line C Work (SMH 398Asan to 355AAsan)

Work consists of abandoning an existing 12-inch ACP sewer line, installing a new 12-inch diameter polyvinyl chloride (PVC) sewer line, and providing temporary bypassing and traffic control as necessary to complete the work.

			Engineers Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
Item No.	Description	Unit	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
1	Mobilization (For costs associated with bonding, insurance and permits for Additive Bid #1)	Lump Sum	$ 98,387.05	1	$ 98,387.05	$ 109,640.79	1	$ 109,640.79	$ 96,843.00	1	$ 96,843.00	$ 122,438.5700	1	$ 122,438.57
2	Unclassified Trench Excavation for Pipe Repair Work, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (10'-20' Depth)	Lin. Ft.	$ 3,000.00	80	$ 240,000.00	$ 634.83	80	$ 50,786.64	$ 499.16	80	$ 39,932.80	$ 770.5061	80	$ 61,640.49
3	Dewatering and dewatering effluent disposal for Additive Bid #1	Lump Sum	$ 43,000.00	1	$ 43,000.00	$ 33,337.77	1	$ 33,337.77	$ 53,509.26	1	$ 53,509.26	$ 13,166.2882	1	$ 13,166.29
4	Crushed rock bedding including compaction and woven geotextile fabric for 12-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 41.00	80	$ 3,280.00	$ 75.71	80	$ 6,056.83	$ 62.24	80	$ 4,979.20	$ 89.1807	80	$ 7,134.46
5	Abandonment of 12-inch diameter ACP pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 7.00	123	$ 861.00	$ 145.45	123	$ 17,890.69	$ 228.21	123	$ 28,069.83	$ 62.6956	123	$ 7,711.56
6	Pipe Repair; install new 12" PVC pipe (AWWA C-900, DR 25) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in place complete. (10'-20' Depth)	Lin. Ft.	$ 75.00	80	$ 6,000.00	$ 176.07	80	$ 14,085.60	$ 260.46	80	$ 20,836.80	$ 91.6800	80	$ 7,334.40
7	A.C. Pavement Resurfacing, including pavement transitions, prime coat, tack coat, traffic striping, miscellaneous restoration, and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 202.00	74	$ 14,948.00	$ 107.77	74	$ 7,975.13	$ 51.66	74	$ 3,822.84	$ 163.8840	74	$ 12,127.42
8	Milling Asphalt Friction Course, including all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 100.00	109	$ 10,900.00	$ 56.81	109	$ 6,192.59	$ 50.36	109	$ 5,489.24	$ 63.2655	109	$ 6,895.94
9	Asphalt Friction Course, including pavement transitions and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 140.00	183	$ 25,620.00	$ 48.17	183	$ 8,815.23	$ 24.24	183	$ 4,435.92	$ 72.1013	183	$ 13,194.54
10	Sewer Line Cleaning of existing 16-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 20.00	1,324	$ 26,480.00	$ 12.07	1,324	$ 15,979.55	$ 17.16	1,324	$ 22,719.84	$ 6.9783	1,324	$ 9,239.27
11	Sewer Line Cleaning of existing 18-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 30.00	248	$ 7,440.00	$ 15.68	248	$ 3,889.83	$ 21.60	248	$ 5,356.80	$ 9.7696	248	$ 2,422.86
12	Sewer Line Cleaning of existing 24-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 35.00	408	$ 14,280.00	$ 18.09	408	$ 7,382.33	$ 19.44	408	$ 7,931.52	$ 16.7479	408	$ 6,833.14
13	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 10.00	646	$ 6,460.00	$ 11.06	646	$ 7,145.60	$ 16.54	646	$ 10,684.84	$ 5.5826	646	$ 3,606.36
14	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 24" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 10.00	144	$ 1,440.00	$ 12.95	144	$ 1,865.18	$ 14.74	144	$ 2,122.56	$ 11.1653	144	$ 1,607.80
15	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 10.00	1,292	$ 12,920.00	$ 8.45	1,292	$ 10,922.76	$ 9.93	1,292	$ 12,829.56	$ 6.9783	1,292	$ 9,015.96
16	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 24" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 10.00	288	$ 2,880.00	$ 12.93	288	$ 3,724.40	$ 17.49	288	$ 5,037.12	$ 8.3739	288	$ 2,411.68

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

Exhibit B (9 of 15)

HDR Project: 10026963
7/24/2018

Item No.	Description	Unit	Engineers Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
			Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
17	Installation of cured-in-place pipe (CIPP) lining in existing 16-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 300.00	646	$ 193,800.00	$ 278.62	646	$ 179,989.49	$ 285.09	646	$ 184,168.14	$ 272.1530	646	$ 175,810.84
18	Installation of cured-in-place pipe (CIPP) lining in existing 24-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 368.00	144	$ 52,992.00	$ 416.32	144	$ 59,949.76	$ 448.83	144	$ 64,631.52	$ 383.8055	144	$ 55,267.99
19	Reinstatement of existing sewer laterals upon completion of CIPP lining installation, and all incidentals, in place complete.	Ea.	$ 920.00	3	$ 2,760.00	$ 1,438.44	3	$ 4,315.31	$ 2,193.00	3	$ 6,579.00	$ 683.8717	3	$ 2,051.62
20	Sewer manhole concrete collar, including reinforcing steel, borrow material where required, and other items as necessary to complete the work.	Ea.	$ 820.00	3	$ 2,460.00	$ 2,868.49	3	$ 8,605.46	$ 4,743.71	3	$ 14,231.13	$ 993.2643	3	$ 2,979.79
21	Install new Plain Precast Concrete Manhole, including plugging or bypass pumping, excavation and backfill, crushed rock base, reinforced concrete base, precast concrete riser(s) and cone, flexible pipe seals and connectors, grade adjustment ring(s), Type "SA" frame and cover, channelized invert, testing, incidentals, and all necessary labor, materials, and equipment, in place complete.	Ea.	$ 19,000.00	1	$ 19,000.00	$ 43,194.57	1	$ 43,194.57	$ 19,189.50	1	$ 19,189.50	$ 67,199.6499	1	$ 67,199.65
22	Sewer Flow Control for new pipe installation and rehabilitation, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Lump Sum	$ 159,400.00	1	$ 159,400.00	$ 358,824.08	1	$ 358,824.08	$ 154,328.91	1	$ 154,328.91	$ 563,319.2431	1	$ 563,319.24
23	Traffic Control Work for new pipe installation and rehabilitation, including obtaining approvals, redesign/modification of traffic control plans for the contractor's convenience, traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Lump Sum	$ 226,400.00	1	$ 226,400.00	$ 72,298.33	1	$ 72,298.33	$ 115,556.62	1	$ 115,556.62	$ 29,040.0383	1	$ 29,040.04
24	Point Repair for 16-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (4 LF pipe section or less, per line segment) (0'-10' Depth)	Ea.	$ 5,100.00	4	$ 20,400.00	$ 24,992.34	4	$ 99,969.36	$ 37,609.90	4	$ 150,439.60	$ 12,374.7809	4	$ 49,499.12
25	Extra Length Point Repair for 16-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,320.00	311	$ 410,520.00	$ 1,828.99	311	$ 568,816.42	$ 2,322.87	311	$ 722,412.57	$ 1,335.1134	311	$ 415,220.27
26	Point Repair for 24-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (4 LF pipe section or less, per line segment) (0'-10' Depth)	Ea.	$ 6,500.00	3	$ 19,500.00	$ 44,914.76	3	$ 134,744.29	$ 35,207.54	3	$ 105,622.62	$ 54,621.9885	3	$ 163,865.97
27	Extra Length Point Repair for 24-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,430.00	260	$ 371,800.00	$ 2,406.80	260	$ 625,768.18	$ 2,715.02	260	$ 705,905.20	$ 2,098.5814	260	$ 545,631.16
28	Sewer Flow Control for Point Repairs of 16-inch sewer pipe for every 4 LF of point repair, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Ea.	$ 10,000.00	4	$ 40,000.00	$ 34,284.53	4	$ 137,138.10	$ 38,806.19	4	$ 155,224.76	$ 29,762.8608	4	$ 119,051.44

Exhibit B (10 of 15)

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

HDR Project: 10026963
7/24/2018

Item No.	Description	Unit	Engineers Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
			Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
29	Sewer Flow Control for Point Repairs of 24-inch sewer pipe for every 4 LF of point repair, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Ea.	$ 10,000.00	3	$ 30,000.00	$ 29,938.41	3	$ 89,815.23	$ 20,350.75	3	$ 61,052.25	$ 39,526.0681	3	$ 118,578.20
30	Traffic Control Work for Point Repairs, including traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Ea.	$ 2,200.00	1	$ 2,200.00	$ 76,529.42	1	$ 76,529.42	$ 114,854.86	1	$ 114,854.86	$ 38,203.9745	1	$ 38,203.97
	SCHEDULE A - ADDITIVE BID #1 (TOTAL Items 1 through 30, inclusive)				**$ 1,171,708.05**			**$ 1,032,867.93**			**$ 2,898,797.81**			**$ 2,632,500.05**

Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement
IFB-05-ENG-2018
GWA Project No. S15-002-EPA

Exhibit B (11 of 15)

HDR Project: 10026963
7/27/2018

Bid Tabulation

SCHEDULE A - Additive Bid #2 Description of Work:
Line B Work (SMH 350AHAGA to SMH 350BHAGA)
Work consists of cleaning and inspecting one siphon consisting of two (2) - 18-inch barrels and providing temporary bypassing and traffic control as necessary to complete the rehabilitation work.

			Engineer's Estimate			Average Unit Price			Infratech International, LLC			Core-Tech/Hawaiian Dredging, LLC		
Item No.	Description	Unit	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount	Unit Price	Qty	Bid Amount
1	Mobilization (For costs associated with bonding, insurance and permits for Additive Bid #2)	Lump Sum	$ 11,148.80	1	$ 11,148.80	$ 22,402.25	1	$ 22,402.25	$ 27,398.66	1	$ 27,398.66	$ 17,405.8400	1	$ 17,405.84
2	Sewer Line Cleaning of Inverted Siphon (2 - 18" Cast Iron Barrels, approximately 124 linear feet each, 22.5 degree bends), including removal and disposal of debris, and all incidentals necessary to complete work.	Lump Sum	$ 22,000.00	1	$ 22,000.00	$ 40,963.27	1	$ 40,963.27	12,120.19	1	12,120.19	69,806.3400	1	69,806.34
3	Closed-Circuit Television (CCTV) inspections for assessment of existing inverted siphon (2 - 18" Cast Iron Barrels, approximately 124 linear feet each, 22.5 degree bends) and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.00	248	$ 2,976.00	$ 103.33	248	$ 25,625.29	14.45	248	3,583.60	192.2056	248	47,666.99
4	Sewer Flow Control for siphon inspection and cleaning, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Lump Sum	$ 165,000.00	1	$ 165,000.00	$ 188,637.46	1	$ 188,637.46	250,822.56	1	250,822.56	126,452.3600	1	126,452.36
5	Traffic Control Work, including obtaining approvals, redesign/modification of traffic control plans for the contractor's convenience, traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Lump Sum	$ 33,000.00	1	$ 33,000.00	$ 36,513.17	1	$ 36,513.17	61,857.87	1	61,857.87	11,168.4700	1	11,168.47
	SCHEDULE A - ADDITIVE BID #2 (TOTAL Items 1 through 5, inclusive)				**$ 234,124.80**			**$ 314,141.44**			**$ 355,782.88**			**$ 272,500.00**

Exhibit B (12 of 15)

RON SMILEY III

TRENCHLESS CIPP LINING APPLICATION INSTALLER| ALLIED TRENCHLESS

SKILLS

Specializes using the latest technologies, wet out procedures, robotics, cutters and cameras.

EXPERIENCE

TRENCHLESS/CIPP LINING INSTALLER • ALLIED TRENCHLESS • FROM 2012 TO CURRENT

Starting in 2012, we have completed roughly 250 successful CIPP projects. Continuous projects ranging from CIPP gravity, CIPP sewer mains, CIPP forced main distribution lines, CIPP pressurized water mains, CIPP gravity sewer laterals, CIPP irrigation lines, CIPP culverts, and CIPP storm drain lines
Projects sites in Oregon, Washington, and Montana

SAMPLE OF PROJECTS

QUINCY, WA
200 LF of 15 inch CIPP Lining sewer lateral

HOODRIVER, OR
200 LF of 12 inch CIPP Lining with robotic cutter to reinstate multiple laterals.
200 LF of 8 inch CIPP Lining of sewer lines with laterals. Project involved working with extreme grade.

TOPPENISH, WA
2,000 LF of 6 inch CIPP Lining sewer main.

KIRKLAND, WA
300 LF of 4 inch CIPP Lining of main sewer line.
100 LF of 6 inch CIPP Lining of main sewer line.

RENTON, WA
100 LF of 6 inch CIPP Lining of main sewer line.

Exhibit B (13 of 15)

EAST WENATCHEE, WA
600 LF of 6 inch CIPP gravity irrigation lines.
CIPP Lining of sewer pipe to city sewer.

WENATCHEE, WA
200 LF of 8 inch CIPP lining of multiple hospital lines.
400 LF of CIPP Lining of 4 inch cast iron sewer lines.
200 LF of CIPP Lining of 6 inch cast iron and clay sewer lines that are 14 feet deep and travel under the roadway.

MOSES LAKE, WA
500 LF of 4-6 inch CIPP Lining of main sewer line at several locations.

RICHLAND, WA
500 LF of 4-6 inch CIPP Lining of concrete sewer line at various locations.

LEAVENWORTH, WA
350 LF of 4 inch CIPP Lining of sewer lines.

CASHMERE, WA
250 LF of 18 inch CIPP Lining of storm drain
200 LF of 4 inch CIPP Linin of laterals and main sewer line.

YAKIMA, WA
2400 LF of 6 inch CIPP Lining of pressure sewer lines.
350 LF of 4 inch CIPP Lining of gravity sewer lines.

SPOKANE, WA
3000 LF of 8 inch CIPP Lining of sewer lines.
100 LF of 36'' CIPP Lining of culvert

TULALIP, WA
4000 LF of 8 inch CIPP Lining of sewer lines

HURRICANE RIDGE, WA
506 LF of 18'' storm drain lines
1360 LF of 24'' storm drain lines
265 LF of 36'' storm drain lines (will be completed by 8/1/18)
150 LF of 48'' storm drain lines (will be completed by 8/1/18)

Exhibit B (14 of 15)

TYLER ALLEN

TRENCHLESS CIPP LINING APPLICATION INSTALLER| ALLIED TRENCHLESS

SKILLS

Specializes using the latest technologies, wet out procedures, robotics, cutters and cameras.

EXPERIENCE

TRENCHLESS/CIPP LINING INSTALLER • ALLIED TRENCHLESS • FROM 2012 TO CURRENT

Starting in 2012, we have completed roughly 250 successful CIPP projects. Continuous projects ranging from CIPP gravity, CIPP sewer mains, CIPP forced main distribution lines, CIPP pressurized water mains, CIPP gravity sewer laterals, CIPP irrigation lines, CIPP culverts, and CIPP storm drain lines
Projects sites in Oregon, Washington, and Montana

SAMPLE OF PROJECTS

QUINCY, WA
200 LF of 15 inch CIPP Lining sewer lateral

HOODRIVER, OR
200 LF of 12 inch CIPP Lining with robotic cutter to reinstate multiple laterals.
200 LF of 8 inch CIPP Lining of sewer lines with laterals. Project involved working with extreme grade.

TOPPENISH, WA
2,000 LF of 6 inch CIPP Lining sewer main.

KIRKLAND, WA
300 LF of 4 inch CIPP Lining of main sewer line.
100 LF of 6 inch CIPP Lining of main sewer line.

RENTON, WA
100 LF of 6 inch CIPP Lining of main sewer line.

Exhibit B (15 of 15)

EAST WENATCHEE, WA
600 LF of 6 inch CIPP gravity irrigation lines.
CIPP Lining of sewer pipe to city sewer.

WENATCHEE, WA
200 LF of 8 inch CIPP lining of multiple hospital lines.
400 LF of CIPP Lining of 4 inch cast iron sewer lines.
200 LF of CIPP Lining of 6 inch cast iron and clay sewer lines that are 14 feet deep and travel under the roadway.

MOSES LAKE, WA
500 LF of 4-6 inch CIPP Lining of main sewer line at several locations.

RICHLAND, WA
500 LF of 4-6 inch CIPP Lining of concrete sewer line at various locations.

LEAVENWORTH, WA
350 LF of 4 inch CIPP Lining of sewer lines.

CASHMERE, WA
250 LF of 18 inch CIPP Lining of storm drain
200 LF of 4 inch CIPP Linin of laterals and main sewer line.

YAKIMA, WA
2400 LF of 6 inch CIPP Lining of pressure sewer lines.
350 LF of 4 inch CIPP Lining of gravity sewer lines.

SPOKANE, WA
3000 LF of 8 inch CIPP Lining of sewer lines.
100 LF of 36'' CIPP Lining of culvert

TULALIP, WA
4000 LF of 8 inch CIPP Lining of sewer lines

HURRICANE RIDGE, WA
506 LF of 18'' storm drain lines
1360 LF of 24'' storm drain lines
265 LF of 36'' storm drain lines (will be completed by 8/1/18)
150 LF of 48'' storm drain lines (will be completed by 8/1/18)

Addendum No. 5

Exhibit C (1 of 20)

BID FORM

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

Guam Waterworks Authority
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
01	June 04, 2018
02	June 05, 2018
03	June 07, 2018
04	June 22, 2018
05	July 03, 2018

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

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.

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

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

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

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

ARTICLE 4 - BIDDER'S CERTIFICATIONS

4.01 Bidder certifies that:

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

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

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

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

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

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

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

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

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (3 of 20)

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). Bids shall be evaluated on the total amount of the Schedule A Base Bid (which reflects significant installation of CIPP). Award of Schedule A Additive bid items shall depend on fund availability and shall be made at the sole discretion of GWA. The successful bidder shall be the lowest responsive responsible bidder for Schedule A Base Bid. If no bids are received for Schedule A Base Bid (CIPP), GWA reserves the right to then award to the lowest responsive responsible bidder for the Alternate Schedule B Base Bid (non-CIPP Open cut). Award of Schedule B Additive bid items shall depend on fund availability and shall be made at the sole discretion of GWA. Bidders shall insert Schedule A and Schedule B bids in separate envelopes. Bid opening shall include only Schedule A submissions. **If there are no Schedule A submissions,** GWA shall open Schedule B submissions.

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (4 of 20)

Addendum No. 5

SCHEDULE A - Base Bid Description of Work:

Line A Work (SMH 1399Asan to Asan Pump Station)

Work consists of replacement of 18-inch and 20-inch diameter asbestos cement pipe (ACP) gravity sewer lines with new 18-inch and 20-inch diameter polyvinyl chloride (PVC) sewer lines, respectively, reconnecting sewer laterals after new pipe installation is complete, removing and disposing of 18-inch and 20-inch diameter ACP, abandoning 12-inch PVC sewer lines, cleaning existing 14-inch, 16-inch, 18-inch, and 20-inch diameter gravity sewer lines and rehabilitating those lines with cured-in-place pipe (CIPP) liner, reinstating sewer laterals after CIPP rehabilitation is complete, rehabilitating manholes, and providing temporary bypassing and traffic control as necessary to complete the replacement and rehabilitation work.

				Base Bid	
Item No.	Description	Unit	Unit Price	Qty	Bid Amount
1	Mobilization and Demobilization	Lump Sum	$ 346,337.14	1	$ 346,337.14
2	Unclassified Trench Excavation for Pipe Repair Work, including pavement demolition, shoring, or bracing, underpinning, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (0'-10' Depth)	Lin. Ft.	$ 348.69	458	$ 159,700.02
3	Unclassified Trench Excavation for Pipe Repair Work, including pavement demolition, shoring, or bracing, underpinning, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (10'-20' Depth)	Lin. Ft.	$ 810.64	223	$ 180,772.72
4	Dewatering and dewatering effluent disposal	Lump Sum	$ 154,423.87	1	$ 154,423.87
5	Removal and disposal of existing 12-inch diameter asbestos cement pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 379.80	458	$ 173,948.40
6	Removal and disposal of existing 12-inch diameter polyvinyl chloride pipe, and all	Lin. Ft.	$ 68.65	152	$ 10,434.80

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (5 of 20)

	incidentals required to complete the work.				
7	Removal and disposal of existing 18-inch diameter asbestos cement pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 461.43	157	$ 72,444.51
8	Removal and disposal of existing 20-inch diameter asbestos cement pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 483.18	66	$ 31,889.88
9	Abandonment of 12-inch diameter PVC pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 77.63	321	$ 24,919.23
10	Abandonment of sewer manhole and all incidentals required to complete the work.	Ea.	$ 3,768.31	2	$ 7,536.62
11	Crushed rock bedding including compaction and woven geotextile fabric for 16-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 44.10	458	$ 20,197.80
12	Crushed rock bedding including compaction and woven geotextile fabric for 18-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 45.24	157	$ 7,102.68
13	Crushed rock bedding including compaction and woven geotextile fabric for 20-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 49.38	66	$ 3,259.08
14	Pipe Repair; install new 16" PVC pipe (AWWA C-905, DR 25) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in place complete. (0'-10' Depth)	Lin. Ft.	$ 199.85	458	$ 91,531.30
15	Pipe Repair; install new 18" PVC pipe (AWWA C-905, DR 18) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in	Lin. Ft.	$ 366.99	157	$ 57,617.43

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (6 of 20)

	place complete. (10'-20' Depth)				
16	Pipe Repair; install new 20" PVC pipe (AWWA C-905, DR 18) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in place complete. (10'-20' Depth)	Lin. Ft.	$ 453.65	66	$ 29,940.90
17	A.C. Pavement Resurfacing, including pavement transitions, prime coat, tack coat, traffic striping, miscellaneous restoration, and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 90.09	450	$ 40,540.50
18	Milling Asphalt Friction Course, including all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 141.99	126	$ 17,890.74
19	Asphalt Friction Course, including pavement transitions and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 108.42	261	$ 28,297.62
20	Sewer Line Cleaning of existing 14-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 18.95	1,153	$ 21,849.35
21	Sewer Line Cleaning of existing 16-inch Asbestos Cement Pipe (ACP) and 16-inch Polyvinyl Chloride (PVC) pipe sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 19.90	815	$ 16,218.50
22	Sewer Line Cleaning of existing 18-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 19.55	915	$ 17,888.25

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (7 of 20)

Addendum No. 5

23	Sewer Line Cleaning of existing 20-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 32.00	35	$ 1,120.00
24	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 14" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.02	1,153	$ 13,859.06
25	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.97	815	$ 10,570.55
26	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 18" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 12.61	915	$ 11,538.15
27	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 20" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 24.81	35	$ 868.35
28	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 14" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 970	2,306	$ 22,368.20

Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (8 of 20)

29	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 10.65	1,630	$ 17,359.50
30	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 18" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 10.29	1,830	$ 18,830.70
31	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 20" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 14.95	70	$ 1,046.50
32	Installation of cured-in-place pipe (CIPP) lining in existing 14-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 361.15	1,153	$ 416,405.95
33	Installation of cured-in-place pipe (CIPP) lining in existing 16-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 408.29	815	$ 332,756.35
34	Installation of cured-in-place pipe (CIPP) lining in existing 18-inch sewer line, including wet	Lin. Ft.	$ 483.06	915	$ 441,999.90

Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (9 of 20)

	out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.				
35	Installation of cured-in-place pipe (CIPP) lining in existing 20-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 788.38	35	$ 27,593.30
36	Reinstatement of existing sewer laterals upon completion of CIPP lining installation, and all incidentals, in place complete.	Ea.	$ 4,337.67	20	$ 86,753.40
37	Rehabilitation of Sewer Manholes with epoxy coating, including cleaning of manhole, bench repair, surface preparation, cementitious underlayment, epoxy topcoat, testing, and other items as necessary to complete the work.	Vert. Ft.	$ 766.46	18	$ 13,796.28
38	Rehabilitation of Sewer Manholes; patching surface defects and other items as necessary to complete the work.	Ea.	$ 4,578.33	4	$ 18,313.32
39	Cast iron manhole frame and cover, 25-inch diameter, including grade adjustment rings where required, and other items as necessary to complete the work.	Ea.	$ 4,747.44	18	$ 85,453.92
40	Cast iron manhole frame and cover, 30-inch diameter, including grade adjustment rings where required, and other items as necessary to	Ea.	$ 5,895.33	1	$ 5,895.33

Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (10 of 20)

Addendum No. 5

	complete the work.				
41	Sewer manhole concrete collar, including reinforcing steel, borrow material where required, and other items as necessary to complete the work.	Ea.	$ 5,251.09	19	$ 99,770.71
42	Sewer Flow Control, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Lump Sum	$ 294,146.34	1	$ 294,146.34
43	Traffic Control Work, including obtaining approvals, redesign/modification of traffic control plans for the contractor's convenience, traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Lump Sum	$ 145,982.52	1	$ 145,982.52
44	Point Repair for 14-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals	Ea.	$ 23,602.76	5	$ 118,013.80

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (11 of 20)

	required to complete the work. (4 LF pipe section or less, per line segment) (0'-10' Depth)				
45	Extra Length Point Repair for 14-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,568.59	321	$ 503,517.39
46	Point Repair for 16-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (4 foot pipe segment) (0'-10' Depth)	Ea.	$ 13,747.56	4	$ 54,990.24
47	Extra Length Point Repair for 16-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,705.88	305	$ 520,293.40
48	Point Repair for 18-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. Maximum of 20 LF. (10'-20' Depth)	Ea.	$ 33,399.22	5	$ 166,996.10
49	Extra Length Point Repair for 18-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 1,670.24	351	$ 586,254.24

Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (12 of 20)

50	Sewer Flow Control for Point Repairs of 14-inch, 16-inch, and 18-inch sewer pipe for every 4 LF of point repair, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Ea.	$ 14,582.88	14	$ 204,160.32
51	Traffic Control Work for Point Repairs, including traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Ea.	$ 13,186.06	14	$ 184,604.84
BASE BID (TOTAL Items 1 through 51, inclusive)					$ 5,920,000.00

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (13 of 20)

Addendum No. 5

SCHEDULE A - Additive Bid #1 Description of Work:

Line B Work (SMH 13ASAN to SMH 350AHAGA)

Work consists of cleaning existing 16-inch and 24-inch diameter gravity sewer lines, rehabilitating approximately 16-inch and 24-inch diameter sewer lines with cured-in-place pipe (CIPP) liner, reinstating sewer laterals after CIPP rehabilitation is complete, replacing sewer manhole concrete collars, and providing temporary bypassing and traffic control as necessary to complete the rehabilitation work.

Line C Work (SMH 398Asan to 355AAsan)

Work consists of abandoning an existing 12-inch ACP sewer line, installing a new 12-inch diameter polyvinyl chloride (PVC) sewer line, and providing temporary bypassing and traffic control as necessary to complete the work.

Item No.	Description	Unit	Unit Price	Qty	Bid Amount
1	Mobilization (For costs associated with bonding, insurance and permits for Additive Bid #1)	Lump Sum	$ 96,843.00	1	$ 96,843.00
2	Unclassified Trench Excavation for Pipe Repair Work, including pavement demolition, shoring, or bracing, underpinning, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (10'-20' Depth)	Lin. Ft.	$ 499.16	80	$39,932.80
3	Dewatering and dewatering effluent disposal for Additive Bid #1	Lump Sum	$ 53,509.26	1	$ 53,509.26
4	Crushed rock bedding including compaction and woven geotextile fabric for 12-inch PVC sewer pipe, in place complete.	Lin. Ft.	$ 62.24	80	$ 4,979.20
5	Abandonment of 12-inch diameter ACP pipe, and all incidentals required to complete the work.	Lin. Ft.	$ 228.21	123	$ 28,069.83

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (14 of 20)

6	Pipe Repair; install new 12" PVC pipe (AWWA C-900, DR 25) by open trenching, including piping, fittings, testing, warning/identification tape, and all incidentals, in place complete. (10'-20' Depth)	Lin. Ft.	$ 260.46	80	$ 20,836.80
7	A.C. Pavement Resurfacing, including pavement transitions, prime coat, tack coat, traffic striping, miscellaneous restoration, and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 51.66	74	$ 3,822.84
8	Milling Asphalt Friction Course, including all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 50.36	109	$ 5,489.24
9	Asphalt Friction Course, including pavement transitions and all necessary labor, materials and equipment, in place complete.	Sq. Yds.	$ 24.24	183	$ 4,435.92
10	Sewer Line Cleaning of existing 16-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 17.16	1,324	$ 22,719.84
11	Sewer Line Cleaning of existing 18-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to complete the inspection and rehabilitation work.	Lin. Ft.	$ 21.60	248	$ 5,356.80
12	Sewer Line Cleaning of existing 24-inch Asbestos Cement Pipe (ACP) sewer lines, including removal and disposal of debris, and other items as necessary to	Lin. Ft.	$ 19.44	408	$ 7,931.52

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (15 of 20)

Addendum No. 5

	complete the inspection and rehabilitation work.				
13	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 16.54	646	$ 10,684.84
14	Closed-Circuit Television (CCTV) inspections for initial assessment of existing 24" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 14.74	144	$ 2,122.56
15	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 16" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 9.93	1,292	$ 12,829.56
16	Closed-Circuit Television (CCTV) inspections for pre- and post-rehabilitation of existing 24" sewer line and sewer manholes, including reports, documentation, and other items as necessary to complete the work.	Lin. Ft.	$ 17.49	288	$ 5,037.12
17	Installation of cured-in-place pipe (CIPP) lining in existing 16-inch sewer line, including wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.	Lin. Ft.	$ 285.09	646	$ 184,168.14
18	Installation of cured-in-place pipe (CIPP) lining in existing 24-inch sewer line, including	Lin. Ft.	$ 448.83	144	$ 64,631.52

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (16 of 20)

	wet out, preparation, testing of installed liner, sealing at manholes, reconstructing manhole transition sections and benches, and other items as necessary to complete the work.				
19	Reinstatement of existing sewer laterals upon completion of CIPP lining installation, and all incidentals, in place complete.	Ea.	$ 2,193.00	3	$ 6,579.00
20	Sewer manhole concrete collar, including reinforcing steel, borrow material where required, and other items as necessary to complete the work.	Ea.	$ 4,743.71	3	$ 14,231.13
21	Install new Plain Precast Concrete Manhole, including plugging or bypass pumping, excavation and backfill, crushed rock base, reinforced concrete base, precast concrete riser(s) and cone, flexible pipe seals and connectors, grade adjustment ring(s), Type "SA" frame and cover, channelized invert, testing, incidentals, and all necessary labor, materials, and equipment, in place complete.	Ea.	$ 19,189.50	1	$ 19,189.50
22	Sewer Flow Control for new pipe installation and rehabilitation, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and	Lump Sum	$ 154,328.91	1	$ 154,328.91

Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (17 of 20)

	concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.				
23	Traffic Control Work for new pipe installation and rehabilitation, including obtaining approvals, redesign/modification of traffic control plans for the contractor's convenience, traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Lump Sum	$ 115,556.62	1	$ 115,556.62
24	Point Repair with 16-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals required to complete the work. (0'-10' Depth)	Ea.	$ 37,609.90	4	$ 150,439.60
25	Extra Length Point Repair with 16-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 2,322.87	311	$ 722,412.57
26	Point Repair with 24-inch diameter PVC sewer pipe, including pavement demolition, shoring, or bracing, underpinning, positive groundwater control, protection and support of structures and utilities, removal of trench support, select fill, flowable fill, traffic covers, and all incidentals	Ea.	$ 35,207.54	3	$ 105,622.62

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (18 of 20)

	required to complete the work. (0'-10' Depth)				
27	Extra Length Point Repair with 24-inch diameter PVC sewer pipe, all depths; in excess of 4 LF (Typ.)	Lin. Ft.	$ 2,715.02	260	$ 705,905.20
28	Sewer Flow Control for Point Repairs of 16-inch sewer pipe for every 4 LF of point repair, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Ea.	$ 38,806.19	4	$ 155,224.76
29	Sewer Flow Control for Point Repairs of 24-inch sewer pipe for every 4 LF of point repair, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in	Ea.	$ 20,350.75	3	$ 61,052.25

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (19 of 20)

	place complete.				
30	Traffic Control Work for Point Repairs, including obtaining approvals, redesign/modification of traffic control plans for the contractor's convenience, traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Lump Sum	$ 114,854.86	1	$ 114,854.86
			ADDITIVE BID #1 (TOTAL Items 1 through 30, inclusive)		$ 2,898,797.81

SCHEDULE A - Additive Bid #2 Description of Work:
Line B Work (SMH 350AHAGA to SMH 350BHAGA)
Work consists of cleaning and inspecting one siphon consisting of two (2) - 18-inch barrels and providing temporary bypassing and traffic control as necessary to complete the rehabilitation work.

Item No.	Description	Unit	Unit Price	Qty	Bid Amount
1	Mobilization (For costs associated with bonding, insurance and permits for Additive Bid #2)	Lump Sum	$ 27,398.66	1	$ 27,398.66
2	Sewer Line Cleaning of Inverted Siphon (2 - 18" Cast Iron Barrels, approximately 124 linear feet each, 22.5 degree bends), including removal and disposal of debris, and all incidentals necessary to complete work.	Lump Sum	$ 12,120.19	1	$ 12,120.19
3	Closed-Circuit Television (CCTV) inspections for assessment of existing inverted siphon (2 - 18" Cast Iron Barrels, approximately 124 linear feet each, 22.5 degree bends) and sewer manholes, including reports, documentation, and all incidentals necessary to complete the work.	Lin. Ft.	$ 14.45	248	$ 3,583.60

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

Exhibit C (20 of 20)

Addendum No. 5

4	Sewer Flow Control for siphon inspection and cleaning, including diversion and bypass pumping plan, temporary bypass piping and pumps, pipe plugs, bypassing at sewer laterals (including locating and exposing cleanouts), temporary trenches (including pavement demolition, excavation, backfill, trench covers, temporary and permanent AC pavement and concrete pavement), electrical and standby power/pumps, monitoring, spill containment/mitigation, additional traffic control, all related restoration work, in place complete.	Lump Sum	$ 250,822.56	1	$ 250,822.56
5	Traffic Control Work, including obtaining approvals, redesign/modification of traffic control plans for the contractor's convenience, traffic control work, all traffic control devices, placement and removal of devices and detours, cleanup, restoration, and incidentals.	Lump Sum	$ 61,857.87	1	$ 61,857.87
			ADDITIVE BID #2 (TOTAL Items 1 through 5, inclusive)		$ 355,782.88

BASE BID (BASIS OF AWARD) =	$ 5,224,389.99
BASE BID + ADDITIVE BID #1 =	$ 2,898,797.81
BASE BID + ADDITIVE BID #1 + ADDITIVE BID #2 =	$ 355,782.88

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.

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
Copyright © 2010 National Society of Professional Engineers, American Council of Engineering Companies, American Society of Civil Engineers, and Associated General Contractors of America. All rights reserved.

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 45-FY2018

Relative to Contract Modification for the Tumon No. 2, Hyundai, and Chaot No. 2 Reservoir Construction Contract

What is the projects objective and is it necessary and urgent?
The objective of the Contract Modification is to construct the Chaot No. 2 tank, Hyundai Booster Pump Station and water lines on North Sabana Street, South Sabana Street, Corenoso Street, and associated side streets.

Chaot No. 2 Reservoir
The 0.5 MG Chaot No. 2 reservoir will be constructed to bring the total storage onsite back to 1.0 MG. The current Chaot No. 1 is 0.5 MG capacity.

Hyundai Booster Pump Station and Off-Site Water Line Upgrades
The Hyundai Booster Pump Station and line upgrades will serve the Hyundai (705) Pressure Zone Upper. The pump station will serve customer that are outside of the Hyundai Reservoir service area.

This project is a Court Order project falls under the deadline requirements established. Currently under contract with AIC International is the construction of the Tumon No. 2 reservoir, Hyundai reservoir, and off-site system improvements.

Where is the project located?
Chaot No. 2 is located at the end of Dero Road.

Hyundai Booster Pump Station will be located at the Hyundai Reservoir. The water line upgrades will be along North Sabana Street, South Sabana Street, Corenoso Street, and side streets.

How much will it cost?
The additive bid price provided by AIC International was $5,953,963.00.

Breakdown
- Chaot No. 2 Reservoir: $3,728,901.00
- Hyundai Booster Pump Station: $1,213,635.00
- 8-in and 12-in water line on North and South Sabana, Corenoso, and side street: $1,011,427.00

GWA Management also seeks approval of a 10% contingency for the Contract Modification fee proposal in the amount of $595,396.30.

When will it be completed?

1. 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.
2. 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 and PW 12-04: Agana Heights & Chaot Tanks

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. 45-FY2018

RELATIVE TO CONTRACT MODIFICATION FOR THE TUMON NO. 2, HYUNDAI, AND CHAOT NO. 2 RESEVOIRS CONSTRUCTION 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 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, GWA has advertised an Invitation for Bid (IFB-09-ENG-2017) 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 an Additive Bid to construct the Chaot No. 2 reservoir (Bid Schedule Table C – Item No. 5, 6, and 7), Hyundai booster pump station (Bid Schedule Table B – Item No. 8), and Hyundai off site water line improvements (Bid Schedule Table B – Item No. 9) (See Exhibit A – Bid Schedule); and

WHEREAS, Resolution No. 05-FY2018 (See Exhibit B – Resolution No. 05-FY2018) approved GWA to award the contract to AIC International, Inc. for the Base Bid; and

WHEREAS, in compliance with the Court Order, GWA has executed a construction contract with AIC International, Inc. for the Base Bid work 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 seeks to issue a contract modification with AIC International, Inc. for portions of the Additive Bid work as noted in the Bid Schedule Tables above to construct the 0.5 MG Chaot No. 2 Reservoir that will bring the Chaot site capacity back to 1.0 MG capacity, the new Hyundai booster pump station, and the Hyundai off site water line improvements that will service Hyundai (705) Pressure Zone Upper; and

WHEREAS, the contract modification work shall consist of Bid Schedule Table C – Item No. 5, Bid Schedule Table B – Item No. 8, and Bid Schedule Table C – Item No. 9 describe below:

1. Contractor furnishing all labor, tools, equipment and material necessary to complete the construction of the second 0.5 MG pre-stressed concrete tank to include, but not limited to: foundation, earthwork, pipework, retaining wall, storm water detention basin, fences, gates, improves to access roads, protective coatings, disinfection, testing and start-up, under the provision of the bid documents and in accordance with applicable GWA standards; and

2. Contractor furnishing all labor, tools, equipment and material necessary to complete the construction of the Hyundai Booster Pump Station and waterlines on North Sabana Street, South Sabana Street, Corenoso Street, and associated side streets, under the provision of the bid documents and in accordance with applicable GWA standards; and

WHEREAS, the current contract awarded to AIC International, Inc. is in the amount of

Fourteen Million Eight Hundred Twenty-Eight Thousand One Hundred Ninety-Four Dollars and Zero Cents ($14,828,194.00) with a total authorized funding for the awarded Base Bid work is Sixteen Million Three Hundred Eleven Thousand Thirteen Dollars and Forty Cents ($16,311,013.40); and

WHEREAS, GWA management seeks approval to execute Contract Modification No. 1 to include the construction of Chaot No. 2 Reservoir, Hyundai Booster Pump Station, and water lines in the amount of Five Million Nine Hundred Fifty-Three Thousand Nine Hundred Sixty-Three Dollars and Zero Cents ($5,953,963.00), plus a 10% contingency of Five Hundred Ninety-Five Thousand Three Hundred Ninety-Six Dollars and Thirty Cents ($595,396.30), to bring Contract Modification No. 1 authorized funding to Six Million Five Hundred Forty-Nine Thousand Three Hundred Fifty-Nine Dollars and Thirty Cents ($6,549,359.30); and

WHEREAS, GWA management seeks CCU approval to bring the total authorized funding for the construction project with AIC International, Inc. to Twenty-Two Million Eight Hundred Sixty Thousand Three Hundred Seventy-Two Dollars and Seventy Cents ($22,860,372.70); and

WHEREAS, the funding source for the construction project will be from the CIP PW 09-11: Water System Reservoirs 2005 Improvements and PW 12-04: Agana Heights & Chaot 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 GWA management to execute Contract Modification No. 1 in the amount of Five Million Nine Hundred Fifty-Three Thousand Nine Hundred Sixty-Three Dollars and Zero Cents ($5,953,963.00), to bring the total contract amount

to Twenty Million Seven Hundred Eighty-Two Thousand One Hundred Fifty-Seven Dollars and Zero Cents ($20,782,157.00).

4. The CCU hereby approves a 10% contingency for the Contract Modification No. 1 work, which brings the authorized Contract Modification No. 1 funding to Six Million Five Hundred Forty-Nine Thousand Three Hundred Fifty-Nine Dollars and Thirty Cents ($6,549,359.30).
5. The CCU hereby further approves the total authorized construction funding including contingencies to Twenty-Two Million Eight Hundred Sixty Thousand Three Hundred Seventy-Two Dollars and Seventy Cents ($22,860,372.70).
6. The CCU hereby approves the use of Bond funding from CIP PW 09-11: Water System Reservoirs 2005 Improvements and PW 12-04: Agana Heights & Chaot Tanks.

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

DULY AND REGULARLY ADOPTED, this 28th day of August 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson 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: _____

EXHIBIT A (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.

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

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

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

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

ARTICLE 4 - BIDDER'S CERTIFICATIONS

4.01 Bidder certifies that:

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

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

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

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

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

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

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

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 A (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)

Item No.	Description	Quantity	Unit	Extended Amount
1.	Mobilization, as specified in the Contract Documents.	1	LS	$ 331,354.00
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	$ 97,952.00

EXHIBIT A (5 OF 19)

TABLE A
TUMON NO. 2 SITE BID SCHEDULE

(BASE BID ITEMS NO. 1 – 8)

Item No.	Description	Quantity	Unit	Extended Amount
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.			
	Item 3 Breakdown			
	3.1 Earthwork			$ 152,139.00
	3.2 Tank Foundation			$ 149,581.00
	3.3 Tank Piping & Valving			$ 60,904.00
	3.4 Pre-stressed Concrete Tank			$ 3,267,643.00
	3.5 Tank Appurtenances			$ 3,616.00
	3.6 Tank Coating			$ 62,181.00
	3.7 Tank & Piping Disinfection			$ 17,957.00
3.	Item 3 Breakdown (Cont.)			
	3.8 Testing & Startup			$ 2,035.00
	3.9 Electrical System			$ 99,572.00
	3.10 Instrumentation and Control			$ 134,743.00
	3.11 Yard Piping & Valving			$ 371,620.00
	3.12 Five Vaults, Piping, Valving and Overflow Discharge Basin			$ 288,571.00
	3.13 Fencing and Gates			$ 48,237.00
	3.14 All other appurtenant work			$ 245,848.00
	Subtotal	1	LS	$ 4,904,647.00
4.	Site Grading and pavement including curbs, concrete gutters, headwall, sidewalk, stormwater swales, and riprap.	1	LS	$ 355,310.00

EXHIBIT A (6 OF 19)

TABLE A
TUMON NO. 2 SITE BID SCHEDULE

(BASE BID ITEMS NO. 1 – 8)

Item No.	Description	Quantity	Unit	Extended Amount
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	$ 70,008.00
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	$ 359,696.00
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	$ 264,494.00

EXHIBIT A (7 OF 19)

TABLE A
TUMON NO. 2 SITE BID SCHEDULE

(BASE BID ITEMS NO. 1 – 8)

Item No.	Description	Quantity	Unit	Extended Amount
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	$ 314,782.00
Table A Base Bid Subtotal				$ 6,698,243.00

EXHIBIT A (8 OF 19)

TABLE B
HYUNDAI SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
1.	Mobilization, as specified in the Contract Documents.	1	LS	$ 570,933.00
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	$ 294,877.00
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.			
	Item 3 Breakdown			
	3.1 Earthwork			$ 123,071.00
	3.2 Tank Foundation			$ 431,508.00
	3.3 Tank Piping & Valving			$ 53,521.00
	3.4 Pre-stressed Concrete Tank			$ 3,135,529.00
	3.5 Tank Appurtenances			$ 206,711.00
	3.6 Tank Coating			$ 61,605.00

EXHIBIT A (9 OF 19)

TABLE B
HYUNDAI SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
3.	Item 3 Breakdown (Cont.)			
	3.7 Tank & Piping Disinfection			$ 17,968.00
	3.8 Testing & Startup			$ 10,182.00
	3.9 Electrical System			$ 273,146.00
	3.10 Instrumentation and Control			$ 100,681.00
	3.11 Yard Piping & Valving			$ 309,728.00
	3.12 Three Vaults, Piping, Valving, Overflow Discharge Basin and Piping			$ 247,161.00
	3.13 Fencing and Gates			$ 54,659.00
	3.14 All other appurtenant work			$ 50,918.00
	Subtotal	1	LS	$ 5,076,388.00
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	$ 386,009.00
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	$ 501,896.00
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	$ 151,149.00

EXHIBIT A (10 OF 19)

TABLE B
HYUNDAI SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
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	$ 392,056.00

Page 11

EXHIBIT A (11 OF 19)

TABLE B
HYUNDAI SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
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.			
	Item No. 8 Breakdown			
	8.1 Proposed Booster Pump Building			$ 326,235.00
	8.2 Triplex Pump System			$ 71,564.00
	8.3 Fire Pump System			$ 109,398.00
	8.4 Piping and Valving			$ 356,696.00
	8.5 Flow Meters			$ 27,701.00
	8.6 Hoist System			$ 6,971.00
	8.7 Generators			$ 215,122.00
	8.8 Diesel Fuel Tank			$ 70,520.00
	8.9 Electrical System			$ 24,282.00
	8.10 Fire Sprinkler System			$ 44,295.00
	8.11 SCADA System			$ 67,052.00
	8.12 All other appurtenant work			$ 44,948.00
	8.13 Deletion of Control Building			($ 151,149.00)
	Subtotal	1	LS	$ 1,213,635.00

EXHIBIT A (12 OF 19)

TABLE B
HYUNDAI SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
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	$ 1,011,427.00
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	$ 1,864,644.00

EXHIBIT A (13 OF 19)

Table B Base Bid Subtotal	$	7,377,308.00
Table B Base Bid and Additive Bid Subtotal	$	11,467,014.00

EXHIBIT A (14 OF 19)

TABLE C
CHAOT NO. 2 SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
1.	Mobilization, as specified in the Contract Documents.	1	LS	$ 222,631.00
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	$ 106,423.00
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	$ 182,283.00
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	$ 245,306.00

EXHIBIT A (15 OF 19)

TABLE C
CHAOT NO. 2 SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
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.			
	Item 5 Breakdown			
	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
	5.11 Yard Piping & Valving			$ 116,250.00
	5.12 Drain Vault, Inlet Vault, Piping and Overflow Manhole			$ 114,181.00
	5.13 Fencing			$ 15,061.00
	5.14 All other appurtenant work			$ 6,170.00
	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 A (16 OF 19)

TABLE C
CHAOT NO. 2 SITE BID SCHEDULE

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

Item No.	Description	Quantity	Unit	Extended Amount
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	$ 119,712.00
Table C Base Bid Subtotal				$ 756,643.00
Table C Base Bid and Additive Bid Subtotal				$ 4,485,544.00
Table A, B, and C Base Bid Total				$ 14,832,194.00
Table A, B, and C Base Bid and Additive Bid Total				$ 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.

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 A (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

(CORPORATE SEAL)

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 A (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.)

Exhibit B (1 of 4)

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. 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

EXHIBIT B (2 OF 4)

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 1st, 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

EXHIBIT B (3 OF 4)

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, PW 12-06: Tank Replacement Piti and Hyundai Tanks, PW 09-03: Water Distribution System Pipe Replacement and Upgrades; and PW 09-04: Pressure Zone Realignment; 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

EXHIBIT B (4 OF 4)

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, PW 12-06: Tank Replacement Piti and Hyundai Tanks, PW 09-03: Water Distribution System Pipe Replacement and Upgrades; and PW 09-04: Pressure Zone Realignment.

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

DULY AND REGULARLY ADOPTED, this 22nd day of November 2017.

Certified by:

JOSEPH T. DUENAS
Chairperson

Attested by:

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: 5

NAYS: 0

ABSTENTIONS: 0

ABSENT: 0

///

///

4

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. 46-FY2018
Relative to Funding Source Approval for the Baza Gardens Wastewater Cross-Island Pumping and Conveyance Construction Contracts

What is the project's objective and is it necessary and urgent?
The objective of the resolution is to seek CCU approval to expand the available funding sources for the construction contracts related to the Baza Gardens Wastewater Cross-Island Pumping and Conveyance Construction project. CCU resolutions that previously authorized and approved the construction contracts for the subject project may have had language relative to a single funding source, or specific funding sources (relevant to the Baza Gardens WWTP), but have omitted funding sources applicable to the improvements contemplated under the project (sewer pump stations, wastewater collection system). This omission unfortunately limits GWA management's flexibility to address additional project funding needs that may arise at a later date as a result of unforeseen circumstances, and which may impact Management's ability to meet Court-Ordered deadlines.

Where is the location?
The Baza Gardens Wastewater Cross-Island Pumping and Conveyance Construction project starts from the existing Baza Gardens WWTP, runs along Route 17, Route 5 and Route 2A and ends at the new Agat WWTP.

How much will it cost?
Resolution does not specify amount of fund but sources of funds.

When will it be completed?
The Baza Gardens Wastewater Cross-Island Pumping and Conveyance Construction project is expected to be completed December 2018 thus the additional funding source may be required until then.

What is the funding source?
GWA management seeks CCU approval to include as a funding source for any of the Baza Gardens Wastewater Cross-Island Pumping and Conveyance Projects Phases I, II and III construction contracts, all CIP bond funds applicable to the Baza Gardens WWTP facility being converted to a pumping facility, any CIP bond funds applicable to wastewater collection and sewer pump stations, Internally Funded CIP and System Development funds

The RFP/BID responses (if applicable):
Not Applicable.

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

RESOLUTION NO. 46–FY2018

RELATIVE TO FUNDING SOURCE APPROVAL FOR THE BAZA GARDENS WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE CONSTRUCTION CONTRACTS

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

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

WHEREAS, the CCU has approved via Resolution 01-FY2017 (See Exhibit A), Resolution 13-FY2017 (See Exhibit B) and Resolution 29-FY2017 (See Exhibit C) construction contracts for the Baza Gardens Wastewater Cross-Island Pumping and Conveyance Projects Phases I, II and III respectively; and

WHEREAS, the resolutions noted above may have had language relative to a single source or specific funding sources relevant to the Baza Gardens WWTP, but omitted funding sources applicable to the improvements contemplated under the final project (such as sewer pump stations and wastewater collection system CIP line items), which unfortunately limits GWA management's flexibility to address additional project funding needs that may arise at a later date; and

WHEREAS, GWA management seeks CCU approval to include as a funding source for any of the Baza Gardens Wastewater Cross-Island Pumping and Conveyance Projects Phases I, II and III construction contracts, all CIP bond funds applicable to the Baza Gardens WWTP facility being converted to pumping and conveyance facilities, any CIP bond funds applicable to

wastewater collection and sewer pump stations, Internally Funded CIP and System Development funds; and

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU hereby approves funding source for any of the Baza Gardens Wastewater Cross-Island Pumping and Conveyance Projects Phases I, II and III construction contracts, to be from all CIP bond funds applicable to the Baza Gardens WWTP facility being converted to a pumping facility, any CIP bond funds applicable to wastewater collection and sewer pump stations, Internally Funded CIP and System Development funds.

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

DULY AND REGULARLY ADOPTED, this 28th day of August 2018.

Certified by:

_____

JOSEPH T. DUENAS
Chairperson

Attested by:

_____

J. GEORGE BAMBA
Secretary

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

Exhibit A (1 of 1)

GUAM CONSOLIDATED COMMISSION ON UTILITIES

RESOLUTION NO. 01–FY2017

RELATIVE TO APPROVAL OF THE BAZA GARDENS WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE PHASE I CONSTRUCTION PROJECT

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

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

WHEREAS, GWA currently has a number of critical Court Order ("CO") projects including a complete evaluation of the Baza Gardens WWTP to determine what improvements are necessary at the plant to achieve compliance with the WWTP's NDPES permit, as stated in Paragraph 13 of the 2011 Court Order as well as the completion of construction activities that were identified in the approved plan resulting from the evaluation noted above as stated in Paragraph 14 of the 2011 Court Order; and

WHEREAS, the system evaluation report required under Paragraph 13 and completed in April of 2014 by GWA's Program Management Office (PMO), Brown and Caldwell, resulted in a recommendation to GWA and the USEPA that transferring/conveying the Baza Gardens WWTP effluent flow across the Route 17 (Cross Island Road) to a new Agat-Santa Rita WWTP site was the recommended conceptual alternative to which this recommendation was found to be acceptable by all parties; and

WHEREAS, Paragraph 14, subsection (b) of the 2011 Court Order required that GWA "execute a contract and issue a notice to proceed with construction" by October 31, 2016; and

WHEREAS, in September of 2015 GWA began the procurement process to find a consulting engineering team to design the wastewater conveyance system and via Resolution 06-FY2016, approved by the CCU in October of 2015, GWA management was authorized to enter

Exhibit A (2 of 4)

into a contract with Duenas Camacho and Associates to design the wastewater conveyance and pumping system which would include new Sewer Pump Station (SPS), gravity mains, force mains and all incidentals and appurtenances to these man components; and

WHEREAS, GWA has determined that in an effort to comply with the intent of the Court Order deadline of October 31, 2016 the most expedient process was to break the construction activities into phases with the first phase covering the construction of one sewer pump station, 14,643 linear feet of gravity and 2,767 linear feet of force main which is considered approximately one third of the overall project requirements; and

WHEREAS, GWA has advertised the Invitation For Bid (IFB-08-ENG-2016) for Baza Gardens Wastewater Conveyance and Pumping Phase I Construction project wherein GWA is soliciting bid proposals from experienced and responsive bidders to construct a sewer pump station, sewer gravity and force mains; and

WHEREAS, this phase of work consists of furnishing all labor, tools, equipment and materials including coordination with GWA Wastewater Operations and Engineering and the Construction Manager to construct all components described in the 100% design drawings and technical specifications which include but are not limited to a sewer pump station with generator and wet well, 14,643 linear feet of gravity line with sizes ranging from 12" to 15" in diameter, 2,767 linear feet of 10" diameter gravity main, pavement restoration in affected areas, SPS perimeter fencing, SPS retaining walls, as well as a communication conduit for future by GWA and GPA; and

WHEREAS, IFB packages were picked up by ten (10) interested parties, from which GWA received bid proposals from two (2) of the ten (10) (SEE EXHIBIT A – Abstract of Bids) before the bid proposals deadline of September 30, 2016; and

WHEREAS, GWA's design consultant for the project along with GWA Engineering analyzed the bid proposals received, particularly the lowest bid received and determined that "BME & Son Inc." successfully submitted the lowest bid as a responsive and responsible bidder and met all the bid requirements set forth by GWA (SEE EXHIBIT B – Bid Evaluation); and

Exhibit A (3 of 4)

WHEREAS, GWA management finds BME & Son Inc.'s bid proposal acceptable and now seeks CCU approval of the bid proposal amount of Seven Million Eight Hundred Eighty Eight Thousand One Hundred Fifty One Dollars and Nineteen Cents ($7,888,151.19) attached hereto (SEE EXHIBIT C – Bid Proposal),

WHEREAS, GWA management further seeks CCU approval of a five percent (5%) contingency to the bid proposal amount or Three Hundred Ninety Four Thousand Four Hundred Seven Dollars and Fifty Six Cents ($394,407.56) to bring the total authorized funding amount to Eight Million Two Hundred Eighty Two Thousand Five Hundred Fifty Eight Dollars and Seventy Five Cents ($8,282,558.75); and

WHEREAS, funding for this project will be from the 2016 Bond Funds under the line items CIP WW 11-03 "Baza Gardens STP Replacement"; 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 conditions set by GWA relative to commencement of work activities are fair and reasonable and serve as a measure of Quality Assurance/Quality Control (QA/QC).
3. The CCU hereby authorizes the management of GWA to accept the bid proposal from "BME & Son Inc." attached hereto as Exhibit C and which is incorporated into this Resolution in its entirety.
4. The CCU hereby further authorizes the management of GWA to enter into a contract with "BME & Son Inc." in the amount Seven Million Eight Hundred Eighty Eight Thousand One Hundred Fifty One Dollars and Nineteen Cents ($7,888,151.19).
5. The CCU hereby further approves the funding total of Seven Million Eight Hundred Eighty Eight Thousand One Hundred Fifty One Dollars and Nineteen Cents ($7,888,151.19) plus a five percent (5%) contingency of Three Hundred Ninety Four Thousand Four Hundred Seven Dollars and Fifty Six

Exhibit A (4 of 4)

Cents ($394,407.56) for a total amount of Eight Million Two Hundred Eighty Two Thousand Five Hundred Fifty Eight Dollars and Seventy Five Cents ($8,282,558.75).

6. The CCU hereby further approves funding for this project to be from the 2016 Bond Funds under the line items CIP WW 11-03"Baza Gardens STP Replacement".

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

DULY AND REGULARLY ADOPTED, this 25th day of October 2016.

Certified by:

JOSEPH T. DUENAS
Chairperson

Attested by:

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: 4

NAYS: 0

ABSTENTIONS: 0

ABSENT: 1

///

///

///

Exhibit B (1 of 4)

GUAM CONSOLIDATED COMMISSION ON UTILITIES

RESOLUTION NO. 13–FY2017

RELATIVE TO APPROVAL OF THE BAZA GARDENS WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE PHASE II CONSTRUCTION PROJECT

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

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

WHEREAS, GWA currently has a number of critical Court Order ("CO") projects including a complete evaluation of the Baza Gardens WWTP to determine what improvements are necessary at the plant to achieve compliance with the WWTP's NDPES permit, as stated in Paragraph 13 of the 2011 Court Order as well as the completion of construction activities that were identified in the approved plan resulting from the evaluation noted above as stated in Paragraph 14 of the 2011 Court Order; and

WHEREAS, the system evaluation report required under Paragraph 13 and completed in April of 2014 by GWA's Program Management Office (PMO), Brown and Caldwell, resulted in a recommendation to GWA and the USEPA that transferring/conveying the Baza Gardens WWTP effluent flow across the Route 17 (Cross Island Road) to a new Agat-Santa Rita WWTP site was the recommended conceptual alternative to which this recommendation was found to be acceptable by all parties; and

WHEREAS, in September of 2015 GWA began the procurement process to find a consulting engineering team to design the wastewater conveyance system and via Resolution 06-FY16, approved by the CCU in October of 2015, GWA management was authorized to enter into a contract with Duenas Camacho and Associates to design the wastewater conveyance and pumping system which would include new Sewer Pump Station (SPS), gravity mains, force mains and all incidentals and appurtenances to these man components; and

Exhibit B (2 of 4)

WHEREAS, GWA has determined that in an effort to comply with the intent of the Court Order deadline of executing "a construction contract and issue a notice to proceed with construction" by October 31, 2016 the most expedient procurement process was to break the construction activities into phases; and

WHEREAS, GWA started procurement of Phase I construction (IFB-08-ENG-2016) on September 9, 2016 which allowed GWA to issue a contract and notice to proceed on October 25, 2016 to BME & Sons Inc., meeting the intent of Court Order deadline; and

WHEREAS, GWA has further moved on the second phase of construction by advertising on November 14, 2016 the Invitation For Bid (IFB-02-ENG-2017) for Baza Gardens Wastewater Conveyance and Pumping Phase II Construction project wherein GWA solicited bid proposals from experienced and responsive bidders to construct a sewer pump station, sewer gravity and force mains; and

WHEREAS, this phase of work consists of furnishing all labor, tools, equipment and materials including coordination with GWA Wastewater Operations and Engineering and the Construction Manager to construct all components described in the 100% design drawings and technical specifications which include but are not limited to a sewer pump station with generator and wet well, 1,767 linear feet of 15" diameter gravity line, 14,298 linear feet of 12" diameter gravity main, pavement restoration in affected areas, SPS perimeter fencing, SPS retaining walls, as well as a communication conduit for future use by GWA and GPA; and

WHEREAS, IFB packages were picked up by seven (7) interested parties, from which GWA received bid proposal from four (4) of the seven (7) (SEE EXHIBIT A – Abstract of Bids) before the bid proposals deadline of December 6, 2016; and

WHEREAS, GWA's design consultant for the project along with GWA Engineering analyzed the bid proposals received, particularly the lowest bid received and determined that "BME & Son Inc." successfully submitted the lowest bid as a responsive and responsible bidder and met all the bid requirements set forth by GWA (SEE EXHIBIT B – Bid Evaluation); and

Exhibit B (3 of 4)

WHEREAS, GWA management finds BME & Sons bid proposal acceptable and now seeks CCU approval of the bid proposal amount of Five Million Nine Hundred Nineteen Thousand Forty Five Dollars and Forty Three Cents ($5,919,045.43) (SEE EXHIBIT C – Bid Proposal); and

WHEREAS, GWA management further seeks CCU approval of a five percent (5%) contingency to the bid proposal amount or Two Hundred Ninety Five Thousand Nine Hundred Fifty Two Dollars and Twenty Seven Cents ($295,952.27) to bring the total authorized funding amount to Six Million Two Hundred Fourteen Thousand Nine Hundred Ninety Seven Dollars and Seventy Cents ($6,214,997.70); and

WHEREAS, funding for this project will be from the 2016 Bond Funds under the line items CIP WW 11-03 "Baza Gardens STP Replacement" and Internally Funded CIP; 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 conditions set by GWA relative to commencement of work activities are fair and reasonable and serve as a measure of Quality Assurance/Quality Control (QA/QC).
3. The CCU hereby authorizes the management of GWA to accept the bid proposal from "BME & Son Inc." attached hereto as Exhibit C and which is incorporated into this Resolution in its entirety.
4. The CCU hereby further authorizes the management of GWA to enter into a contract with "BME & Son Inc." in the amount Five Million Nine Hundred Nineteen Thousand Forty Five Dollars and Forty Three Cents ($5,919,045.43).
5. The CCU hereby further approves the funding total of Five Million Nine Hundred Nineteen Thousand Forty Five Dollars and Forty Three Cents ($5,919,045.43) plus a five percent (5%) contingency of Two Hundred Ninety Five Nine Hundred Fifty Two Dollars and Twenty Seven Cents ($295,952.27)

Exhibit B (4 of 4)

for a total amount of Six Million Two Hundred Fourteen Nine Hundred Ninety Seven Dollars and Seventy Cents ($ 6,214,997.70).

6. The CCU hereby further approves funding for this project to be from the 2016 Bond Funds under the line items CIP WW 11-03 "Baza Gardens STP Replacement" and Internally Funded CIP.

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

DULY AND REGULARLY ADOPTED, this 24th day of January 2017.

Certified by:

JOSEPH T. DUENAS
Chairperson

Attested by:

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: 4

NAYS: 0

ABSTENTIONS: 0

ABSENT: 0

NO RESPONSE TO POLL 1

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. 47- FY2018
RELATIVE TO APPROVAL AND ADOPTION OF GWA's ASSET MANAGEMENT POLICY

What is the project's objective and is it necessary and urgent?
GWA has implemented a formal asset management program, and has implemented a Computerized Maintenance Management System (CMMS) to protect the investment GWA has made in our infrastructure assets as part of the adopted Capital Improvement Program.

The objective of this resolution is to formally adopt a written Asset Management Policy to reinforce the Authority's commitment to the proper maintenance, management and risk-based decision-making as part of a properly developed Asset Management System.

The adoption of this Asset Management Policy is necessary and important to achieving the following:

- Development of an Asset Management Program that conforms to and can be accredited in compliance with the ISO 55001 Asset Management Standard.
- Improved Levels of Service
- Informed asset investment decisions
- Managed risk
- Improved organizational sustainability
- Improved efficiency and effectiveness

Where is the location?
N/A.

How much will it cost?
No direct costs incurred. The adoption of the Asset Management Policy supports the development of proper operations and maintenance budgets through an effective Asset Management System which tracks maintenance costs, plans needed maintenance, and utilizes risk-based management decisions for GWA's assets.

When will it be completed?
The adoption of the Policy supports continuous improvement of an established asset management program, thus, its effectivity is continuous and without end.

What is the funding source?
N/A

The RFP/BID responses (if applicable):
N/A.

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

GWA RESOLUTION NO. 47-FY2018

RELATIVE TO APPROVAL AND ADOPTION OF GWA's ASSET MANAGEMENT POLICY

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 invested millions of dollars under its Capital Improvement Program for new infrastructure assets as part of Water Resource Master Plan, and U.S. District Court Order requirements; and

WHEREAS, the CCU has emphasized the importance of protecting those new assets as well as maximizing the useful life of all of its infrastructure assets through a program of proper maintenance and operation; and

WHEREAS, GWA has implemented an Asset Management Program and deployed a Computerized Maintenance Management System (CMMS) in furtherance of proper management of these infrastructure assets; and

WHEREAS, GWA seeks to continuously improve its Asset Management Program and conform to industry standards in the development of the Program; and

WHEREAS, compliance with and accreditation to the ISO 55001 Asset Management Standard will best serve the interest of GWA ratepayers, for accountability, sustainability, risk management, service management and financial efficiency; and

WHEREAS, one of the requirements for accreditation to the ISO 55001 Asset Management Standard is to have an "Asset Management Policy" implemented within the GWA; and

WHEREAS, GWA developed its **Asset Management Policy dated 15 August 2018** authored by its Utility Services Administrator (Operations) and approved by the General Manager, attached as **EXHIBIT "1";** 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 continued improvement of the Asset Management Program is essential to protecting the investment in GWA's Capital Improvements, improving its Levels of Service, providing informed asset investment decisions, managing risk improving organizational sustainability, improving efficiency and effectiveness of GWA.
3. The CCU finds that the adoption of the "Asset Management Policy" is indeed necessary to confirm and reinforce the CCU's commitment to effective asset management.
4. The CCU supports the continued development of the Asset Management Program to industry standards and accreditation to the ISO 55001 Asset Management Standard.
5. The CCU hereby authorizes the management of GWA to adopt and implement the attached Asset Management Policy

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

DULY AND REGULARLY ADOPTED, this 28th day of August 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson 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: _____

///

///

///

///

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913

Asset Management Policy

Document Status: **Draft**

Date Issued: **August 15, 2018**

Lead Author: **Ma. Teogenesa Q. Salayon, Utility Services Administrator - Asset Management**

Approved by: **Miguel C. Bordallo, P.E. General Manager**

Record of Policy Review:

Date Policy was Issued	Date of Review	Reason for Review	Lead Reviewer	Additional Comments

1. Purpose and Scope

The purpose of this policy is to establish the priority and commitment the Governance and Management of Guam Waterworks Authority assign to responsible management of all of its assets, specifically to maximize the useful life and minimize life-cycle costs of all relevant assets. The scope of this policy covers all identified assets within the asset management system, and as documented in the asset inventory and accounted for in the valuation of the assets.

2. Policy

It is and shall be the Policy of the Consolidated Commission on Utilities, and the Executive Management of the Guam Waterworks Authority, to develop, implement, maintain and continuously improve the GWA Asset Management System, and to promote amongst its employees, stakeholders and vendors, an effective and efficient, collaborative culture of asset management at Guam Waterworks Authority. In establishing and implementing this Policy, the CCU and GWA will:

- Develop, adopt and periodically review, revise and improve Guam Waterworks Authority's (GWA's) Strategic Asset Management Plan;
- Plan for, develop and adopt an operating budget which provides for sufficient resources to carry out necessary maintenance activities, actively monitor and replenish critical parts inventory, and acquire needed replacements or renewals;
- Require, promote, and support effective and efficient work processes and risk-based decision making in alignment with GWA's mission.
- Implement, maintain and continuously improve asset management consistent with international standard ISO 55001: 2014 *Asset Management- Management Systems-Requirements*

Further, the following shall be goals to be incorporated into the GWA Asset Management System:

- Optimizing O&M activities: GWA shall seek to achieve the most effective and efficient maintenance approaches and strategies, such as mixing preventive and predictive maintenance, as operational risk reduction options.
- Utilizing asset risk assessments: GWA shall utilize risk of failure/consequence of failure assessments and analysis to drive asset management decisions, such that those assets representing the highest risks receive the appropriate risk mitigation actions, such as capital renewal or operational enhancements.

- Utilizing life cycle cost analysis: GWA shall identify and evaluate risk mitigation options on the basis of life cycle costs, operational risk reduction, and their ability to be effectively implemented.

- Cost tracking and analysis: GWA shall implement comprehensive maintenance labor, material and equipment cost tracking to develop sufficient data for analyzing and prioritizing maintenance options for efficient funding within available budgets.

- Data collection and management: GWA shall achieve effective management of maintenance related data and information, and employ decision support tools to improve operations, maintenance, and capital investment decisions.

- Continual improvement: GWA shall obtain organizational coordination and commitment through the adoption of new business processes and implement effective change management, with respect to data integration, process improvement and decision making.

3. Responsibilities

The Utility Services Administrator is accountable for the Asset Management System.

The Operations & Maintenance Managers for the various operational divisions (Water Production and Treatment, Water Distribution, Wastewater Collections, and Wastewater Treatment) are accountable for operation and maintenance of GWA's assets in accordance with this Policy and the Asset Management Program.

The Chief Financial Officer is responsible for utilizing the cost data from the Asset Management Program to develop budgets and provide analysis in accordance with this Policy.

The General Manager is responsible for implementing this Policy.

4. Policy Review

The Policy will be reviewed every three years or following significant changes to the operational context of GWA to ensure the policy is current, effective and continuously improved.

Associated References

- GWA Water Resources Master Plan

- ISO 55001:2014 – Asset Management- Management Systems- Requirements

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. 48-FY2018
Relative to Approval of Purchases Under Indefinite Quantity Contract with JMI Edison for Submersible Pump and Motor Inventory for Deep Wells

What is the project's objective and is it necessary and urgent?
The objective is to provide for adequate operational inventory of critical spares for the Water Production and Treatment Division. This requested approval will allow for purchasing pumps and motors to improve reliability of GWA's water supply system. The project is to provide submersible pumps and motors to GWA Deep Wells to ensure adequate stock is available at all times and bring back online existing down wells.

Where is the location?
GWA Island-wide Deep-well Production Facilities.

How much will it cost?
Seven Hundred Thirty-Six Thousand Eight Hundred Sixty-Six and Fifty-Five Cents ($ 736,866.55).

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

Revised Estimated Pump and Motor Purchase

	Motors	Pumps	Total	Ave / Qtrly	Start date	End Date
1 Year Renewal	53	96	149		10-Aug-18	9-Aug-19
	$415,860.18	$321,006.37	$736,866.55	$184,216.64		

*2019 Estimated Order	Est Qty Qtrly Order	Estimated Qtrly Order	One Year Order
2019 Motor Spares	4	$110,803.49	$443,213.96
2019 Pump Spares	8	$102,600.08	$410,400.32
TOTAL AMOUNT		**$213,403.57**	**$853,614.28**

*PUC Docket 18-02, Approved Nov. 30, 2017.

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

**CCU Resolution No. 42-2018, Request for Approval.

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

Contract Term	Three (3) years.
Notice to Proceed	Vendor Acceptance of Notice Dated June 4, 2015
Start of 3 Year Contract	June 5, 2018
End of 3 Year Contract	June 4, 2018
1 Year Renewal	
Start of 1 Year Renewal	August 10, 2018
End of 1 Year Renewal	August 9, 2019

What is the funding source(s)?
FY 2019 Revenue Funded Capital Improvements.

The RFP / Bid Responses
IFB 2015-03 Submersible Motors, Pumps and Pump and Motor.

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. 48-FY2018

RELATIVE TO APPROVAL OF PURCHASES UNDER INDEFINITE QUANTITY CONTRACT WITH JMI-EDISON FOR SUBMERSIBLE PUMPS AND MOTOR INVENTORY FOR DEEPWELLS

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 advertised an Invitation for Bid (IFB) 2015-03 soliciting cost quotations from experienced and responsive bidders to provide Deepwell Submersible Pumps and Motors to provide adequate stock replenishment when needed; and

WHEREAS, there was one responsive and responsible bidder who met Submersible Pumps and Motors requirements of IFB 2015-03; and

WHEREAS, the IFB 2015-03 offers were evaluated by GWA's review committee; and

WHEREAS, GWA's review committee determined that the offer for Submersible Pumps and Motors made by JMI-Edison is fair and reasonable by the basis of past purchases made [ATTACHMENT 1 - EXHIBIT A]; and

WHEREAS, GWA accepted JMI-Edison's bid proposal of indefinite quantity bid of "All or None Bid for Franklin Electric Motors" and "All or None Bid for Franklin Electric and

Grundfos Pump" with an estimated total amount of Seven Hundred Six Thousand Six Hundred Eighty-Seven Dollars and Thirty Cents ($706,687.30) [ATTACHMENT 1 - EXHIBIT B]; and

WHEREAS, CCU approved the three (3) year contract with two (2) optional one-year extensions with JMI Edison for an estimated initial term amount of Seven Hundred Six Thousand Six Hundred Eighty-Seven Dollars and Thirty Cents ($706,687.30); and

WHEREAS, CCU further approved additional purchases for FY2017 and FY2018 to round out the initial 3-year term total of Nine Hundred Sixty-Three Thousand Eighteen Dollars and Sixty-Two Cents ($963,018.62) for Submersible Pump and Motor Purchases [ATTACHMENT 1]; and

WHEREAS, PUC approved the purchase of Submersible Pumps and Motors under existing contract with JMI-Edison for FY 2018, but required that GWA submit documentation of approval of additional purchases under the contract by the CCU, which GWA estimated at that time to be at a cost of Two Hundred Thirteen Thousand Four Hundred Three Dollars and Fifty-Seven Cents ($213,403.57) per quarter [ATTACHMENT 2]; and

WHEREAS, GWA Management renewed the contract for one-year term extension [ATTACHMENT 3]; and

WHEREAS, GWA Management has assessed its operational needs for the coming year, analyzed the information available and determined that for FY2019 GWA will need to purchase additional pumps and motors to maintain proper inventory levels of critical spares in accordance with established operations and maintenance practices, which averages out to be One Hundred Eighty-Four Thousand Two Hundred Sixteen Dollars and Sixty-Four Cents ($184,216.64) per quarter; and

WHEREAS, GWA Management seeks CCU approval to purchase fifty-three (53) submersible motors of various sizes in the amount of Four Hundred Fifteen Thousand Eight Hundred Sixty Dollars and Eighteen Cents ($415,860.18) and ninety-six (96) submersible pumps of various types or stages in the amount of Three Hundred Twenty-One Thousand Six Dollars

and Thirty-Seven Cents ($321,006.37) which totals to Seven Hundred Thirty-Six Thousand Eight Hundred Sixty-Six Dollars and Fifty-Five Cents ($736,866.55) [ATTACHMENT 4] ; and

WHEREAS, the source of funding for the purchase of fifty-three (53) submersible motors and ninety-six (96) submersible pumps of various types or stages will FY 2019 Revenue Funded Capital Improvement Projects.

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 proceed based on the renewal for one-year contract with IFB 2015-03.
3. The CCU hereby further authorizes the management of GWA to purchase Seven Hundred Thirty-Six Thousand Eight Hundred Sixty-Six Dollars and Fifty-Five Cents ($736,866.55) of pumps and motors.
4. The CCU hereby further approved the funding total of Seven Hundred Thirty-Six Thousand Eight Hundred Sixty-Six Dollars and Fifty-Five Cents ($736,866.55) of pumps and motors.

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

DULY AND REGULARLY ADOPTED, this 28th day of August, 2018.

Certified by:	Attested by:
_____	_____
JOSEPH T. DUENAS	**J. GEORGE BAMBA**
Chairperson	Secretary

//

//

//

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

///

///

///

///

///

///

///

GUAM CONSOLIDATED COMMISSION ON UTILITIES

RESOLUTION NO. 22-FY2017

RATIFICATION OF PURCHASES UNDER INDEFINITE QUANTITY CONTRACT WITH JMI-EDISON FOR SUBMERSIBLE PUMPS AND MOTORS FOR GWA DEEP WELLS

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 advertised an Invitation for Bid (IFB) 2015-03 soliciting cost quotations from experienced and responsive bidders to provide Deep Well Submersible Pumps and Motors and provide adequate stock replenishment when needed; and

WHEREAS, there was one responsive and responsible bidder who met the Submersible Pumps and Motors requirements of IFB 2015-03; and

WHEREAS, IFB 2015-03 offers were evaluated by GWA's review committee; and

WHEREAS, GWA's review committee determined that the offer for Submersible Pumps and Motors made by JMI-Edison was fair and reasonable by the basis of past purchases made [EXHIBIT A]; and

WHEREAS, GWA accepted JMI-Edison's bid proposal of indefinite quantity bid of "All or None Bid for Franklin Electric Motors" and "All or None Bid for Franklin Electric and Grundfos Pump" with an estimated total amount of Seven Hundred Six Thousand Six Hundred Eighty-Seven Dollars and Thirty Cents ($706,687.30) [EXHIBIT B]; and

WHEREAS, GWA management seeks CCU ratification of purchases related to IFB 2015-03 in the total amount of Seven Hundred Thirty-Six Thousand One Hundred Sixty-Four Dollars and Forty-Seven Cents ($736,164.47) [EXHIBIT C]; and

WHEREAS, GWA management seeks CCU approval to purchase additional pumps and motors for GWA Deep Wells in the total amount of Two Hundred Twenty-Six Thousand Eight Hundred Fifty-Four Dollars and Fifteen Cents ($226,854.15) [EXHIBIT D]; and

WHEREAS, GWA management seeks CCU approval and ratification of IFB 2015-03 for Submersible Pumps and Motors' indefinite quantity bid in total of Nine Hundred Sixty-Three Thousand Eighteen Dollars and Sixty-Two Cents ($963,018.62), the sum of Encumbered Purchase Orders ($736,164.47) and Purchase of Additional Pumps and Motors ($226,854.15); and

WHEREAS, the source of funding for the Submersible Pumps and Motors are Multiple Bond Fund Programs (PW 09-02 Water Wells, Bond 2013 and PW 09-08 Mechanical and Electrical Equipment Replacement Bond 2013) and Internally Funded Capital Improvement Projects.

NOW THEREFORE BE IT RESOLVED, the Consolidated Commission on Utilities does hereby approve and ratify 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 "JMI-Edison" are fair and reasonable.
3. There was no indication of bad faith or fraud in any of the procurements contained therein.
4. All of the procurement herein are in the best interest of the territory of Guam and Guam Waterworks Authority.
5. The CCU ratifies the encumbered purchases under the previously issued purchase orders relative to the Indefinite Quantity Contract with JMI-Edison

in the total amount of Seven Hundred Thirty-Six Thousand One Hundred Sixty-Four Dollars and Forty-Seven Cents ($736,164.47).

6. The CCU hereby further authorizes GWA management to purchase additional pumps and motors for GWA Deep Wells in the total amount of Two Hundred Twenty-Six Thousand Eight Hundred Fifty-Four Dollars and Fifteen Cents ($226,854.15).
7. The CCU hereby further approves the funding total of Nine Hundred Sixty-Three Thousand Eighteen Dollars and Sixty-Two Cents ($963,018.62) for the initial three-year contract term.
8. GWA management is hereby authorized to seek PUC approval in the event the contract value exceeds One Million Dollars ($1,000.000.00) as required by Docket 00-04.

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

DULY AND REGULARLY ADOPTED, this 21st day of February, 2017.

Certified by:

JOSEPH T. DUENAS
Chairperson

Attested by:

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: 5

NAYS: 0

ABSTENTIONS: 0

ABSENT: 0

EXHIBIT A (1 of 6)

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives."
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913

MEMORANDUM

TO: General Manager

VIA: Supply Management Administrator

FROM: Evaluation Committee Members

SUBJECT: Invitation to Bid No. GWA 2015-03
Ref: Submersible Motors, Pumps, and Pump & Motor

Invitation for Bid No: GWA 2015-03 was officially announced and advertised in the Pacific Daily News, Marianas Variety and Guam Waterworks Authority Website on January 29, 2015 and open as scheduled on March 04, 2015 @ 10:00 am. Twelve (12) prospective bidders expressed their interests by acknowledging receipt of the bid package thru GWA's website.

Bidders Register:

1. Z Enterprises, Inc
2. Frontier Supply
3. Hikhjkj
4. JMI Edison
5. Black Const. Corp
6. Benson Guam Ent
7. HDR, Inc
8. Guam Pacific Ent
9. JJ Global
10. Inland Builders
11. Xiong's Family
12. David Meinung

Of the twelve (12), one (1) submitted their bid package, namely:

- JMI Edison

An evaluation committee was formally assembled and met on March 17, 2015 @ 9:30 am in Procurement's office to review/discuss and evaluate the bid.

Committee members consist of:

- Ron Topasna
- Karen Grape
- Peter Salas

1

EXHIBIT A (2 of 6)

Ref: IFB 2015-03 Submersible Motors, Pumps, and Pump & Motor

The committee members reviewed the bid proposal and have determined JMI Edison being the only bidder, respectfully submitted a fair cost and are as followed:

ITEM NO.	DESCRIPTION	ESTIMATED QTY		UNIT COST	EXTENSION
"All or None Bid for Franklin Electric Motors"					
1.1A	SUBMERSIBLE MOTOR 10 H.P.	1	EA	$2,218.17	$2,218.17
B	SUBMERSIBLE MOTOR 20 H.P.	2	EA	$2,797.88	$5,595.76
C	SUBMERSIBLE MOTOR 30 H.P.	1	EA	$3,487.42	$3,487.42
D	SUBMERSIBLE MOTOR 40 H.P.	3	EA	$4,023.70	$12,071.10
E	SUBMERSIBLE MOTOR 50 H.P.	3	EA	$5,332.76	$15,998.28
F	SUBMERSIBLE MOTOR 60 H.P	37	EA	$6,110.36	$226,083.32
G	SUBMERSIBLE MOTOR 75 H.P.	3	EA	$11,171.65	$33,514.95
H	SUBMERSIBLE MOTOR 100 H.P.	4	EA	$12,330.12	$49,320.48
I.	SUBMERSIBLE MOTOR 125 H.P.	2	EA	$16,179.37	$32,358.74
J.	SUBMERSIBLE MOTOR 150 H.P.	3	EA	$19,393.95	$58,181.85
				Total Cost:	**$438,830.07**

2

Ref: IFB 2015-03 Submersible Motors, Pumps, and Pump & Motor

ITEM NO.	DESCRIPTION	ESTIMATED QTY		UNIT COST	EXTENSION
"All or None Bid for Franklin Electric & Grundfos Pumps"					
2.1 A.	SUBMERSIBLE PUMP 70SR7, 6" X 8 STAGE	1	EA	$1,020.24	$1,020.24
B.	SUBMERSIBLE PUMP 70SR15, 6" X 15 STAGE	1	EA	$1,395.34	$1,395.34
C.	SUBMERSIBLE PUMP 150SR30, 6" X 14 STAGE	1	EA	$1,484.16	$1,484.16
D.	SUBMERSIBLE PUMP 150SR40, 6" X 19 STAGE	1	EA	$1,885.65	$1,885.65
E.	SUBMERSIBLE PUMP 175SR20, 6" X 8 STAGE	1	EA	$1,843.65	$1,843.64
F.	SUBMERSIBLE PUMP 175SR25, 6" X 10 STAGE	2	EA	$2,147.92	$4,295.84
G.	SUBMERSIBLE PUMP 175SR30, 6" X 12 STAGE	1	EA	$2,459.99	$2,459.99
H.	SUBMERSIBLE PUMP 175SR40, 6" X 14 STAGE	10	EA	$2,714.46	$27,144.60
I.	SUBMERSIBLE PUMP 175SR40, 6" X 16 STAGE	3	EA	$2,981.52	$8,944.56
J.	SUBMERSIBLE PUMP 175SR50, 6" X 18 STAGE	1	EA	$3,253.38	$3,253.38
K.	SUBMERSIBLE PUMP 250SR25, 6" X 9 STAGES	1	EA	$1,578.98	$1,578.98
L.	SUBMERSIBLE PUMP 250SR30, 6" X 10 STAGES	3	EA	$1,674.40	$5,023.20
M.	SUBMERSIBLE PUMP 250SR40, 6" X 12 STAGES	3	EA	$1,937.27	$5,811.81
N.	SUBMERSIBLE PUMP 250SR40, 6" X 14 STAGES	4	EA	$2,349.56	$9,398.24

3

Ref: IFB 2015-03 Submersible Motors, Pumps, and Pump & Motor

EXHIBIT A (4 of 6)

O.	SUBMERSIBLE PUMP 250SR50, 6" X 15 STAGES	10	EA	$2,327.96	$23,279.60
P.	SUBMERSIBLE PUMP 250SR50, 6" X 18 STAGES	2	EA	$2,942.51	$5,885.02
Q.	SUBMERSIBLE PUMP 250SR60, 6" X 20 STAGES	3	EA	$3,223.97	$9,671.91
R.	SUBMERSIBLE PUMP 325SR25, 6" X 7 STAGES	1	EA	$1,541.17	$1,541.17
S.	SUBMERSIBLE PUMP 325SR40, 6" X 9 STAGES	2	EA	$1,842.45	$3,684.90
T.	SUBMERSIBLE PUMP 325SR40, 6" X 11 STAGES	1	EA	$2,236.14	$2,236.14
U.	SUBMERSIBLE PUMP 325SR50, 6" X 13 STAGES	13	EA	$2,552.42	$33,181.46
V.	SUBMERSIBLE PUMP 325SR60, 6" X 18 STAGES	2	EA	$3,319.40	$6,638.80
W.	SUBMERSIBLE PUMP 325SR75, 6" X 21 STAGES	1	EA	$4,905.58	$4,905.58
X.	SUBMERSIBLE PUMP 400SR50, 8" X 7 STAGES	1	EA	$3,494.64	$3,494.64
Y.	SUBMERSIBLE PUMP 400SR75, 8" X 10 STAGES	2	EA	$4,736.93	$9,473.86
Z.	SUBMERSIBLE PUMP 400SR100, 8" X 13 STAGES	3	EA	$5,418.10	$16,254.30
AA.	SUBMERSIBLE PUMP 475SR100, 8" X 11 STAGES	3	EA	$5,426.50	$16,279.50
AB.	SUBMERSIBLE PUMP 475SR125, 8" X 14 STAGES	2	EA	$6,226.49	$12,452.98
AC.	SUBMERSIBLE PUMP 625S-1500, 8" x 7A STAGES	2	EA	$9,468.84	$18,937.68

4

AD.	SUBMERSIBLE PUMP 625S-1500, 8" x 7 STAGES	2	EA	$9,468.84	$18,937.68
AE.	SUBMERSIBLE PUMP 800S-1000, 8" x 4A STAGES	1	EA	$5,462.38	$5,462.38
				Total Cost:	**$267,857.23**

[Grand Total Cost: $706,687.30]

After a thorough evaluation, the committee members clarified and confirmed with JMI Edison on Item No: 1.1a the submitted Total Cost indicated $212,746.75. JMI responded dated on March 26, 2015 and advised the members it was a typographical error and the total cost should state $438,830.07. In closing, the committee members agreed to accept the bid offer from JMI Edison and have determined they submitted and complied with all specifications and requirements set forth in the IFB.

Summary:

This is an "Indefinite Quantity Bid" pursuant to the Guam Procurement Regulations. The quantities reflected are only estimated and not guarantee of amounts to be purchased. Quantities may increase or decrease thru the duration of the contract and continued purchase is subject to the availability of funds. No guarantee or other commitment is made to vendors in terms of purchasing quantity and the amounts set forth in this bid are only estimates of needs for the near term.

Please note: This is an Indefinite Quantity Bid so the grand total cost stated above does not mean it's a guaranteed cost that GWA will be issuing.

Contract Term:

GWA and the lowest responsible bidder may enter into a contract (which may be in the form of a Purchase Order) on terms acceptable to GWA which shall commence upon vendor's acknowledged receipt of a Notice to Proceed from GWA. The initial term of the contract is three (3) years with two (2) one year options to renew, subject to availability of funds and agreement between the parties.

Concurred and accepted by the committee members:

Ron Topasna, Water Plant Superintendent

Ref: IFB 2015-03 Submersible Motors, Pumps, and Pump & Motor

Karen Cheryl C. Grajo, Management Analyst III, Operations

Peter Salas, Buyer II, Procurement

Your approval is greatly appreciated.

Antonio Camacho

In consideration of the foregoing, please indicate your approval of this recommendation by your signature below.

[✓] CONCURRED [ ] UNCONCURRED

VINCENT ED. GUERRERO, SMA

[✓] APPROVED [ ] DISAPPROVED

3/30/2015

MARK G. MILLER, GENERAL MANGER, INTERIM

01 33 03p m 03-31-2015 | 2 | 6716493750

6716493750 GWA Procurement Supply 01:22:59 p.m. 03-31-2015 2 /3

EXHIBIT B

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives."
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913
Tel: (671) 300-6026/27 Fax: (671) 649-3750

MAR 3 1 2015

JMI Edison
125 North Marine Drive
P.O. Box 6577
Tamuning, Guam 96931
Ph: 646-6400 Fax: 649-4835

RE: Notice of Award for GWA Bid No. 2015-03
For: Submersible Motors, Pumps, and Pump & Motor

Hafa Adai!

The Guam Waterworks Authority ("GWA") has considered the bid submitted by JIM Edison for the above described reference in response to its Advertisement for Bids dated January 29, 2015.

Therefore, JMI Edison is hereby notified the proposal for the Indefinite Quantity Bid has been accepted by GWA. Please be advised the Bid Bond must remain in full force and effect until all performance periods have ended **(e.g., until warranty period has ended as any warranty is a service provided in conjunction with the delivery of goods).**

You are hereby advised that any obligations incurred by JMI Edison prior to execution of the contract are at your own risk. GWA shall have no obligation to reimburse costs incurred prior to execution of the contract.

You are required to return an acknowledged copy of this Notice of Award to the Procurement & Supply Administrator.

Sincerely,

3/30/2015

Mark G. Miller
General Manager, Interim

01:33:03 p.m. 03-31-2015	3	6716493750

6716493750 GWA Procurement Supply 01:23:15 p.m. 03-31-2015 3 /3

Ref: IFB 2015-03 Submersible Motors, Pumps, and Pump & Motor

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged

Dated this 31st day of March 2015.

By JEFFREY PAESTE
Title Operations Manager

******* END OF NOTICE OF AWARD *******

EXHIBIT C

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Encumbered Purchase Orders Relative to IFB 2015-13

PO No	PO Amount	PO Date	Funding Source
297992	$42,772.51	04/16/15	PW 09-08 Mechanical and Electrical Equipment Replacement, Bond 2013
298208	$59,887.34	06/05/15	PW 09-08 Mechanical and Electrical Equipment Replacement, Bond 2013
298218	$165,918.18	06/05/15	PW 09-08 Mechanical and Electrical Equipment Replacement, Bond 2013
298345	$21,462.24	07/14/15	PW 09-08 Mechanical and Electrical Equipment Replacement, Bond 2013
298695	$32,426.64	11/18/15	PW 09-08 Mechanical and Electrical Equipment Replacement, Bond 2013
298783	$88,111.79	12/16/15	Internally Funded CIP
299504	$160,047.56	05/20/16	PW 09-02 Water Wells, Bond 2013
299589	$141,981.34	06/14/16	PW 09-02 Water Wells, Bond 2013
300204	$23,556.87	11/14/16	Internally Funded CIP
Total Amount	**$736,164.47**		

Copies of all Purchase Orders attached.

EXHIBIT D

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Additional Purchases

Submersible Motors	Qty	Unit Cost	Amount
150 hp. Franklin Motor	2	$19,393.95	$38,787.90
125 hp. Franklin Motor	1	$16,179.37	$16,179.37
100 hp. Franklin Motor	1	$12,330.12	$12,330.12
75 hp. Franklin Motor	2	$11,171.65	$22,343.30
60 hp. Franklin Motor	5	$6,110.36	$30,551.80
50 hp. Franklin Motor	6	$5,332.76	$31,996.56
40 hp. Franklin Motor	4	$4,023.70	$16,094.80
Total Submersible Motors	**21**		**$168,283.85**
Submersible Pumps	**Qty**	**Unit Cost**	**Amount**
175 SR-40F66- 1463 (6"x 14 stage)	8	$2,714.46	$21,715.68
250 SR-50F66-1563 (6"x 15 stage)	4	$2,327.96	$9,311.84
250 SR-40F66- 1263 (6"x 11 stage)	1	$1,937.27	$1,937.27
250SR-50F66-1863	1	$2,942.51	$2,942.51
250SR-40F66-1463	1	$2,349.56	$2,349.56
400 SR-100F86-1384 (8"x 13 stages)	1	$5,418.10	$5,418.10
475 SR-100F86- 1186 (8"x 13 stages)	1	$5,426.50	$5,426.50
NFPA-625S-1500 (Stages 7A)	1	$9,468.84	$9,468.84
Total Submersible Motors	**18**		**$58,570.30**
Total Pumps and Motors	**39**		**$226,854.15**

RECEIVED
NOV 3 0 2017
Public Utilities Commission
GUAM

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

IN RE: PETITION FOR APPROVAL OF INCREASED SPENDING UNDER EXISTING CONTRACT WITH JMI-EDISON FOR SUBMERSIBLE PUMPS & MOTORS	)	**GWA DOCKET 18-02**
	)	**ORDER**

INTRODUCTION

This matter comes before the Guam Public Utilities Commission (the "PUC" or the "Commission") pursuant to the Petition for Increased Spending Under An Existing Contract for Submersible Pumps and Motors to JMI-Edison (the "Petition"), filed by the Guam Waterworks Authority ("GWA") on October 18, 2017.

In January of 2015, GWA issued Invitation for Bid Number GWA 2015-03 ("IFB 2015-03") soliciting the purchase of submersible pumps and motors for GWA's drinking wells.[1] In March of 2015, GWA's procurement team evaluated and selected JMI-Edison's indefinite quantity bid.[2] Thereafter, GWA awarded the bid to JMI-Edison and entered into a three-year contract with JMI-Edison, with two (2) yearlong options to renew.

On July 28, 2017, in GWA Docket 17-08, the Commission issued an Order ratifying the underlying procurement and approving the contract between JMI-Edison for the purchase of submersible pumps and motors, for an estimated cost of $1,300,282.92.

On November 28, 2017, the Administrative Law Judge of the PUC Joephet R. Alcantara (the "ALJ") filed a report regarding the instant Petition, which included his

[1] Application to Award an Indefinite Quantity Contract for Submersible Pumps and Motors to JMI-Edison ("Docket 17-08 Petition"), p. 1 (July 12, 2017).

[2] Docket 17-08 Petition, p. 1.

findings and recommendations based on the administrative record before the PUC. The ALJ made the following findings.

DETERMINATIONS

When the PUC ratified the procurement for submersible pumps and motors, and approved the contract between GWA and JMI-Edison for the purchase of submersible pumps and motors back in July, 2017, the PUC also considered additional purchases in 2018 under the contract. With respect to the purchase of additional pumps and motors in 2018, GWA was required to return to the PUC with a listing, itemizing such additional purchases.

In this Petition, GWA submitted that "[i]n an effort to build-up the deep well pump and motor inventory, GWA management reviewed historical inventory, critical production numbers and empirical well repair schedules to create an on-hand purchase schedule and associated quarterly replenishment guidelines."[3] GWA requested PUC approval of $612,778.13 for FY2018, as well as quarterly purchases of $213,403.57 for the remainder of the contract. In support of its request, GWA provided the PUC with an inventory of its deep well submersible pumps and motors, which indicates purchases for 2017, 2018, plus three additional quarters after 2018.

The ALJ found that for FY2018, GWA intends on purchasing fifty (50) motors and around seventy (70) pumps, for a total cost of $612,778.13. Under the JMI-Edison contract, the submersible motors range from $2,218.17 to $19,393.95, depending on the strength and horsepower of the motor. The submersible pumps range from

[3] Petition for Increased Spending Under an Existing Contract with JMI-Edison for Submersible Pumps and Motors, p. 2 (Oct. 18, 2017).

$1,020.24 to $9,468.84, depending on the size of, and number of stages contained in, the pump. Back in July, GWA initially indicated that it would purchase $597,847.18 worth of pumps and motors for 2018.

With respect to purchases after FY2018, based on the listing provided by GWA, GWA will purchase on average one (1) of each pump and motor required for its wells, per quarter.

As noted in the administrative record in GWA Docket 17-08, GWA purchases submersible pumps and motors on an as needed basis, and periodically replenishes its inventory of spare parts. And it is clear that these pumps and motors are necessary to operate GWA's one hundred and four (104) deep wells.

Based on the documentation provided by GWA in this docket, and for the other reasons set forth herein, the ALJ recommended that the PUC authorize GWA's purchase of submersible pumps and motors for FY2018, at an estimated cost of $612,778.13. With respect to purchases after FY2018, GWA should be required to submit to the PUC documentation of approval of the additional purchases under the contract by the Consolidated Commission on Utilities, which GWA estimates at $213,403.57 per quarter.

ORDERING PROVISIONS

Upon careful consideration of the record herein, the November 28, 2017 ALJ Report, and for good cause shown, on motion duly made, seconded and carried by the affirmative vote of the undersigned Commissioners, the Commission hereby ORDERS the following:

1. The instant Petition is hereby APPROVED and GWA is authorized to purchase submersible pumps and motors under the existing contract with JMI-Edison for FY2018, at a cost not to exceed $612,778.13.

2. With respect to purchases after FY2018, GWA is required to submit to the PUC documentation of approval of the additional purchases under the contract by the Consolidated Commission on Utilities, which GWA estimates at $213,403.57 per quarter. The PUC shall thereafter review the need for such purchases and funding at that time.

3. GWA is ordered to pay the PUC's regulatory fees and expenses, including and without limitation, consulting and counsel fees, and the fees and expenses associated with the instant contract review proceedings. Assessment of the PUC's regulatory fees and expenses is authorized pursuant to 12 G.C.A. §§ 12103(b) and 12125(b), and Rule 40 of the Rules of Practice and Procedure before the PUC.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

SO ORDERED this 30th day of November, 2017.

JEFFREY C. JOHNSON
Chairman

ROWENA E. PEREZ
Commissioner

JOSEPH M. MCDONALD
Commissioner

FILOMENA M. CANTORIA
Commissioner

MICHAEL A. PANGELINAN
Commissioner

PETER MONTINOLA
Commissioner

ANDREW L. NIVEN
Commissioner

P173040.JRA

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913
Tel: (671) 300-6027 Fax: (671) 649-3750

JUN 0 1 2018

JMI Edison
125 North Marine Drive
P.O. Box 6577
Tamuning, Guam 96931
Ph: 646-6400 Fax: 649-4835

Project No: GWA IFB 2015-03
Project Name: Submersible Pumps and Motors
Ref: Contract Renewal

Hafa Adai Mr. Oriondo,

We would like to inform you IFB 2015-03 Submersible Pumps, Motors, Cables and Booster Pump bid contract is up for renewal. As stated on the bid under Contract Term: The initial term of the contract is three (3) years with two (2) one-year options to renew, subject to availability of funds and agreement between the parties.

If JMI Edison agrees to renew this contract, please acknowledge by signing below;

FOR: Romeo Oriondo,
Operations Manager.

Date: 08/10/18

Your response on this matter will be greatly appreciated

Sincerely,

FOR

Vince Guerrero, CPM
Supply Management Administrator

ATTACHMENT 4

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

2019 MOTOR PURCHASE

Submersible Motor	1st Quarter Motor Qty	1st Quarter Motor Cost	2nd Quarter Motor Qty	2nd Quarter Motor Cost	3rd Quarter Motor Qty	3rd Quarter Motor Cost	4rth Quarter Motor Qty	4rth Quarter Motor Cost	2019 Motor Spare Inventory	2019 Motor Cost
10HP									0	
20HP									0	
30 HP	1	$3,487.42			1	$3,487.42			2	$6,974.84
40 HP	1	$4,023.70			1	$4,023.70	1	$4,023.70	3	$12,071.10
50 HP (critical)	5	$26,663.80	7	$37,329.32	5	$26,663.80	6	$31,996.56	23	$122,653.48
60 HP	4	$24,441.44			3	$18,331.08	3	$18,331.08	10	$61,103.60
75 HP	1	$11,171.65	1	$11,171.65	1	$11,171.65	1	$11,171.65	4	$44,686.60
100 HP (critical)	2	$24,660.24	2	$24,660.24		$0.00	1	$12,330.12	5	$61,650.60
125 HP (critical)			2	$32,358.74	1	$16,179.37		$0.00	3	$48,538.11
150 HP (critical)			1	$19,393.95	1	$19,393.95	1	$19,393.95	3	$58,181.85
TOTAL	**14**	**$94,448.25**	**13**	**$124,913.90**	**13**	**$99,250.97**	**13**	**$97,247.06**	**53**	**$415,860.18**

2019 PUMP PURCHASE

Submersible Pumps	1st Quarter Pump Qty	1st Quarter Pump Cost	2nd Quarter Pump Qty	2nd Quarter Pump Cost	3rd Quarter Pump Qty	3rd Quarter Pump Cost	4rth Quarter Pump Qty	4rth Quarter Pump Cost	2019 Pump Spare Inventory	2019 Pump Cost
250SR-50F66-1863	1	$2,942.51	1	$2,942.51	1	$2,942.51	1	$2,942.51	4	$11,770.04
250SR-40F66-1263	1	$1,937.27	1	$1,937.27	1	$1,937.27	1	$1,937.27	4	$7,749.08
250SR-30F66-1063	1	$1,674.40	1	$1,674.40	1	$1,674.40	1	$1,674.40	4	$6,697.60
400SR-75F86-1084	1	$4,736.93	0	$0.00	1	$4,736.93	1	$4,736.93	3	$14,210.79
400SR-100F86-1384 (critical)	1	$5,418.10	1	$5,418.10	1	$5,418.10		$0.00	3	$16,254.30
70SR-15F66-1763	1	$1,395.34		$0.00		$0.00	1	$1,395.34	2	$2,790.68
150SR-40F66-1963	1	$1,885.65		$0.00	1	$1,885.65	1	$1,885.65	3	$5,656.95
175SR-25F66-1063	1	$2,459.99	1	$2,459.99	1	$2,459.99		$0.00	3	$7,379.97
250SR-25F66-0963	1	$1,578.98		$0.00	1	$1,578.98	1	$1,578.98	3	$4,736.94
250SR-60F66-2063	1	$3,223.97		$0.00	1	$3,223.97	1	$3,223.97	3	$9,671.91
325SR-40F66-1164	1	$2,236.14	1	$2,236.14	1	$2,236.14		$0.00	3	$6,708.42
475SR-125F86-1486 (critical)	1	$6,226.49		$0.00	1	$6,226.49	1	$6,226.49	3	$18,679.47
NFPA-625S-1500-7 (critical)	1	$9,468.84	1	$9,468.84	1	$9,468.84		$0.00	3	$28,406.52
150SR-30F66-1463	1	$1,484.16		$0.00	1	$1,484.16	1	$1,484.16	3	$4,452.48
175SR-20F66-0863	1	$1,843.65	1	$1,843.65	1	$1,843.65		$0.00	3	$5,530.95
175SR-50F66-1863	1	$3,253.38		$0.00	1	$3,253.38	1	$3,253.38	3	$9,760.14
325SR-40F66-0964	1	$1,842.45	1	$1,842.45	1	$1,842.45		$0.00	3	$5,527.35
325SR-75F66-2184	1	$4,905.58		$0.00	1	$4,905.58	1	$4,905.58	3	$14,716.74
400SR-50F86-0764	1	$3,494.64	1	$3,494.64	1	$3,494.64		$0.00	3	$10,483.92
NFPA-800S-1000-4A (critical)	1	$5,462.38		$0.00	1	$5,462.38	1	$5,462.38	3	$16,387.14
175SR-40F66-1463	1	$2,714.46	1	$2,714.46	1	$2,714.46		$0.00	3	$8,143.38
250SR-50F66-1563	3	$6,983.88	3	$6,983.88	2	$4,655.92	3	$6,983.88	11	$25,607.56
250SR-40F66-1463	1	$2,349.56	1	$2,349.56	1	$2,349.56	2	$4,699.12	5	$11,747.80
325SR-50F66-1364			2	$5,104.84	1	$2,552.42	1	$2,552.42	4	$10,209.68
475SR-100F86-1186 (critical)			2	$10,853.00		$0.00	1	$5,426.50	3	$16,279.50
NFPA-625S-1500-7A (critical)			2	$18,937.68		$0.00	1	$9,468.84	3	$28,406.52
325SR-60F66-1864			1	$3,319.40	1	$3,319.40	1	$3,319.40	3	$9,958.20
325SR-25F66-0763			1	$1,541.17		$0.00	1	$1,541.17	2	$3,082.34
TOTAL	**25**	**$79,518.75**	**23**	**$85,121.98**	**25**	**$81,667.27**	**23**	**$74,698.37**	**96**	**$321,006.37**

2019 TOTAL (REVISED)	1st Quarter Qty	1st Quarter Cost	2nd Quarter Qty	2nd Quarter Cost	3rd Quarter Qty	3rd Quarter Cost	4rth Quarter Qty	4rth Quarter Cost	2019 TOTAL Qty	2019 TOTAL COST (REVISED)
2019 Motor Spares	14	$94,448.25	13	$124,913.90	13	$99,250.97	13	$97,247.06	53	$415,860.18
2019 Pump Spares	25	$79,518.75	23	$85,121.98	25	$81,667.27	23	$74,698.37	96	$321,006.37
	39	**$173,967.00**	**36**	**$210,035.88**	**38**	**$180,918.24**	**36**	**$171,945.43**	**149**	$736,866.55

2019 Estimated Order	Est Qty Order	Estimated Qtrly Order	One Year Order
2019 Motor Spares	4	$110,803.49	$443,213.96
2019 Pump Spares	8	$102,600.08	$410,400.32
TOTAL AMOUNT		**$213,403.57**	**$853,614.28**

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

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. 49- FY2018

Relative to Approving the Guam Waterworks Authority Fiscal Year 2019 Budget

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

The purpose is to approve GWA's Fiscal Year 2019 Budget.

How much will it cost?

The Fiscal Year 2019 Budget totals $89 million. O&M expenses are comprised of $24 million in salaries and benefits; $15 million in power purchases; $9 million in water purchases; $11 million in administrative and general expenses; $5 million in contractual expenses; $21 million in depreciation and $4 million in retiree supplemental annuities and health care.

When will it be completed?

The FY2019 Budget represents anticipated revenues and expenditures for the fiscal period of October 1, 2018 through September 30, 2019.

What is the funding source?

The funding source is derived from water, wastewater and other sources of revenues estimated at $113 million: $69 million in water sales; $39 million in wastewater; $4 million from the legislative surcharge; and $460 thousand in other revenues.

GUAM CONSOLIDATED COMMISSION ON UTILITIES
RESOLUTION NO 49 - FY2018

RELATIVE TO APPROVING THE GUAM WATERWORKS AUTHORITY FISCAL YEAR 2019 BUDGET

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 Management has formulated and thoroughly reviewed the Fiscal Year 2018 projected year end results in conjunction with the development of Management's proposed Fiscal Year 2019 (FY2019) Budget and does hereby submit said budget to the CCU for their approval as detailed in Exhibit A as attached; and

WHEREAS, the budget encompasses projections for revenues, operating expenditures, debt service, capital outlay and other cash flow requirements needed to meet financial and obligatory covenants; and

WHEREAS, after careful evaluation of several factors that include among others, recent financial data, known and measurable changes in operating conditions, financial policies, existing obligations and developing plans, the FY2019 Budget Plan recommended by Management for approval by the CCU assumes no rate relief; and

WHEREAS, operating revenue for FY2019 are predicated on this assumption and are projected to reach $113 million derived from approximately $69 million in water sales, $39 million in wastewater; $3 million from the legislative surcharge; $460 thousand in Other revenues and $1 million in System Development Charges; and

WHEREAS, operating costs are earmarked at $24 million in salaries and benefits; $15 million in power purchases; $9 million in water purchases; $11 million in administrative and general expenses; $5 million in contractual expenses; $21 million in depreciation and $4 million in retiree supplemental annuities and health care for a combined Fiscal 2019 total of $89 million; and

WHEREAS, the budget, as recommended, allows GWA a staff level of 400 full time employees (FTE) to meet O&M activities; and

WHEREAS, the FY2019 Budget represents Management's best estimates of resources necessary to carry out its strategic objectives consonant with the Authority's mission; and

WHEREAS, it is the General Manager's desire to be granted budget transfer authority to modify or adjust budget amounts among and between budget expense categories, with the exception of salaries and benefits, in the event of changed conditions unanticipated in the FY2019 Budget request; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve and authorize the items listed herein:

Section 1. The foregoing recitals hereby constitute the findings of the CCU.

Section 2. The CCU affirms management's recommendation to maintain current rates for basic, and non-lifeline rates across all rate structures and customer classes and legislative surcharges.

Section 3. The Fiscal Year 2019 Proposed Budget of $113 million and $89 million of operating revenues and expenses, respectively, in addition to other cash flow requirements such as debt service, bond reserves, working capital and conforming to the rate covenants for the bond indenture (1.25) and PUC (1.75) are just and reasonable.

Section 4. The General Manager is authorized a staff level not to exceed 400 Full- time employees for FY2019.

Section 5. The General Manager is authorized to transfer funds up to 10% between and among O&M Budget expenses, excluding Salaries and Benefits categories, as necessary to meet the mission of GWA. Any transfer(s) greater than 10% requires CCU approval.

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

DULY AND REGULARLY ADOPTED, this 28th day of August 2018.

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: _____

GUAM WATERWORKS AUTHORITY

FISCAL YEAR 2019

BUDGET

Exhibit A

Resolution 49-FY2018

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

TABLE OF CONTENTS

HIGHLIGHTS 1
TABLE I (FY-2019 BUDGET FINANCIAL PLAN) 4
TABLE II (REVENUES) 6
TABLE III (WATER DEMAND) 7
TABLE IV (WASTEWATER DISCHARGE) 7
TABLE V (OPERATIONS & MAINTENANCE COSTS) 8
TABLE VI (O&M SCHEDULE/CONTRACTUAL EXPENSE) 9
TABLE VII (PERSONNEL BUDGET/PROPOSES) 10
TABLE VIII (O&M SCHEDULE/ADMINISTRATIVE & GENERAL EXPENSES) 10
CONCLUSION 11
PROPOSED BUDGET (Appendix A) 12
PROPOSED BUDGET (Appendix A - Continuation) 13
WATER REVENUES (Appendix B) 14
WASTEWATER REVENUES (Appendix C) 15
SURCHARGES (Appendix D) 16
SALARES & BENEFITS (Appendix E) 17
PAYGO (Appendix F) 18
PAYGO (Appendix F - Continuation) 19
DEBT SERVICE (Appendix G) 20

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

HIGHLIGHTS

Presented within is the Guam Waterworks Authority Fiscal Year 2019 Budget Proposal for the approval of GWA's governing board, the Consolidated Commission on Utilities (CCU).

The 2011 Federal Court Order, advancing GWA's asset management program, improving core functions, ensuring continued financial progress, a robust debt service coverage, funding preventative maintenance and improving liquidity are the thrust of the FY2019 Budget Plan recommended by GWA management.

2011 Federal Court Order

Momentum continues to complete capital improvement projects mandated by the Federal Court Order. Ninety-eight percent (98%) of court-ordered tasks have been completed to date. The remaining projects are actively in progress at different phases of design or construction and include projects such as rehabilitating and constructing water storage tanks, deep wells and upgrading wastewater plants and conveyance systems. Management maintains regular weekly communication with the U.S. Environment Protection Agency to coordinate project status.

Asset Management Program

GWA rolled out its computerized maintenance management system (CMMS) that supports a risk-based approach to drive the prioritization of maintenance spending. Funds will continue to be allocated on the basis of specific risks to assets with the highest potential of failure and having the biggest impact on levels of service, the environment and community.

To complement the functionality of the CMMS, GWA will also implement critical training intended to raise and refine the skill levels of essential operations and maintenance personnel. To realize this effort, a matching grant was recently secured for specialized training in the maintenance of pumps and motors, predictive maintenance skills, and leak detection.

Financial Progress

The outlook for FY2019 continues to look strong. Operating income (excluding depreciation) is forecasted to reach $45 million. Nominal increases are projected for revenues, operating expenses and annual debt service however no rate relief is requested in FY2019.

GWA will continue to strategically set priorities and allocate resouces to appropriately sustain and improve service in FY2019. GWA will continue to embark on preserving current

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

entitlements such as federal grants and explore alternative sources of funding to help defray capital costs for unfunded mandates. Cash flow will continue to be the modus operandi for FY2019 in order to ensure sufficiency and liquidity to meet all financial obligations.

It remains paramount however that GWA continues to sustain it's historical collection ratios of 95%-99% and execute it's core fundamental functions in order to achieve the financial projections presented in the Budget Plan.

Debt Service

Debt service continues to be the largest line item in the Budget Plan and accounts for 32% of base revenues projected for FY2019. Approximately $500 million in debt is outstanding and consist largely of revenue bonds and a subordinate loan. GWA's revenue bonds are rated BBB, Baa2 and A- by Fitch Rating, Moody's and Standard and Poors respectively.

Annual debt service in FY2019 is approximately $35 million and represents a $2 million increase from FY2018's level. Debt service coverage is estimated at 1.45 and 1.81 times respectively pursuant to the methodology established by GWA's Revenue Bond Indentureand the Guam Public Utilities Commision (PUC). These coverage levels exceed the 1.25 and 1.75 ratios set by the Bond Indenture and PUC.

No new debt is forecasted in FY2019.

Liquidity

The Budget Plan assumes revenues are adequate to continue funding cash reserves in FY2019. GWA administers two (2) reserves authorized by the CCU, an Operations and Maintenance Reserve equivalent to 180 days of budgeted operating expenses and a Debt Service Reserve equivalent to an amount sufficient to cause debt service coverage for senior long term bonds to be equal to or greater than 1.75 times. Approximately $1.5 million is identified in the Budget Plan to fund the O&M reserve. The Debt Service Reserve is presently fully funded therefore will not require additional deposits in FY2019.

Proposed Budget

The Budget Plan encompasses projections for revenues, operating expenditures, debt service, paygo and other cash flow requirements needed to meet financial and obligatory covenants. Several factors were taken into consideration that include among others, recent financial data, known and measurable changes in operating conditions, financial policies, existing obligations and developing plans.

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

Alongside capital improvement projects that are replacing aged water lines and rebuilding supply and storage capacity, there are day-to-day operational schedules that require an equal balance of human and financial resources. The Budget Plan intends to achieve continuity and stability in supporting capital projects without compromising key components in operations.

Table I on the following pages represents the Authority's financial blueprint for FY 2019. As noted earlier, all rates remain unchanged for basic, lifeline, non-lifeline and legislative surcharge and base-rate revenue projections are predicated under these assumptions.

DRAFT

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

Table I

	Audited 2017	Annualized 2018	Projection 2019
OPERATING REVENUES			
Water Revenues	$ 63,976,842	$ 65,581,775	$ 69,758,957
Wastewater Revenues	37,194,332	38,363,960	38,967,180
Legislative Surcharge	3,207,226	3,359,312	3,536,002
Other Revenues	435,514	450,809	459,046
System Development Charge	871,946	1,099,526	1,173,322
Total Operating Revenues	**105,685,861**	**108,855,382**	**113,894,507**
O & M EXPENSES			
Power Purchases	12,076,262	14,574,680	14,775,781
Water Purchases	7,309,125	9,081,405	9,167,696
Salaries and Benefits	19,543,661	22,926,713	24,435,234
Administrative and General Expenses	10,302,366	10,679,611	10,777,027
Depreciation Expense	16,824,455	18,338,100	21,108,780
Contractual Expense	4,087,430	4,536,161	5,111,471
Retiree Supplemental Annuities/Health care costs	3,376,745	3,451,848	3,622,150
Total Operating Expenses	**73,520,044**	**83,588,518**	**88,998,140**
Earnings (Loss) from Operations	**32,165,817**	**25,266,864**	**24,896,367**
Interest Income-Bond 2013,2014 Refunding,2016,2017 Refunding	784,252	2,491,439	1,019,316
Interest Income-Other Funds	120,382	418,255	166,274
Interest Income-SDC	12,717	89,492	24,862
Interest Expense-Bond 2013,2014 Refunding,2016,2017 Refunding	(26,648,925)	(26,288,346)	(28,653,415)
Interest Expense-BOG	(524,835)	(364,643)	(237,144)
AFUDC	14,066,891	7,500,000	13,887,666
Amortization of Discount, Premium and Issuance Costs	742,328	(372,892)	(213,575)
Grants & other contributions (net of federal expenditures)	21,301,013	10,366,651	66,398,461
Deferred outflows from Pension	-	391,104	(194,412)
Recoveries of bad debts/ Miscellaneous Revenue	(217,999)	-	-
Loss on Defeasance Bond- Refunding	(182,621)	(149,323)	-
Loss on Asset Disposal	(755,256)	-	-
Loss on Inventory write-down	217,999	-	-
Prior Year Adjustment	(321,068)	61,077	-
Net Income (Loss)	**40,760,696**	**19,409,678**	**77,094,401**

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

Table I - Continued

	Audited	Annualized	Projection
	2017	2018	2019
INCREASE (DECREASE) in Capital	**40,760,696**	**19,409,678**	**77,094,401**
BOND DEBT SERVICE	**24,562,301**	**26,738,920**	**31,368,415**
DEBT SERVICE COVERAGE CALCULATION - Section 6.12			
Earnings (Loss) from Operations	**32,165,817**	**25,266,864**	**24,896,367**
Investment Income-Other funds	120,382	418,255	166,274
COLA	594,000	594,000	623,700
System Development Charge	(871,946)	(1,099,526)	(1,173,322)
Depreciation	16,824,455	18,338,100	21,108,780
Balance Available for Debt Service - Section 6.12	**48,832,707**	**43,517,693**	**45,621,800**
Debt Service Coverage (1.25X) - Section 6.12	**1.99**	**1.63**	**1.45**
DEBT SERVICE COVERAGE CALCULATION - PUC Debt Ratio			
Balance Available for Debt Service	**48,832,707**	**43,517,693**	**45,621,800**
Transfer - Reserve for O & M	-	1,000,000	
Available for Debt Service -Reserve for Debt Service	11,217,733	11,217,733	11,217,733
Balance Available for Debt Service - PUC	**60,050,441**	**55,735,426**	**56,839,533**
Debt Service Coverage (1.75X) - PUC	**2.44**	**2.08**	**1.81**
CASH FLOW STATEMENT			
Net Income (Loss)	**40,760,696**	**19,409,678**	**77,094,401**
Depreciation & Amortization	17,566,783	17,965,208	20,895,205
AFUDC	(14,066,891)	(7,500,000)	(13,887,666)
Principal Payments - Bonds	(5,040,000)	(5,200,000)	(5,715,000)
Principal Payments-Subordinate loan	(2,863,988)	(3,018,019)	(3,180,334)
Loss on Defeasance Bond and other deferred cost	(559,707)	(540,427)	407,987
System Development Charge	(871,946)	(1,099,526)	(1,173,322)
PayGo/CAPEX	(11,002,200)	(10,463,516)	(13,152,585)
Working Capital Reserve for O & M	(9,498,345)	(1,000,000)	(3,347,412)
Grants and Contributions	(21,301,013)	(10,366,651)	(66,398,461)
Transfer from Capitalized Interest Fund	7,165,500	1,771,471	-
Prior Year Adjustment & Loss on Asset Disposal/Invty writedown	1,076,324	(61,077)	-
Cash Surplus (Deficit)	1,365,212	(102,859)	(8,457,186)
Beginning Balance	8,157,430	9,522,644	9,419,785
Ending Balance	**$ 9,522,644**	**$ 9,419,785**	**$ 962,599**

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

REVENUES

Revenues are projected to reach $113 million in FY2019. This compares to $109 million in FY2018 and represents a 5% or $4 million increase as shown in Table II below. This is attributable to anticipated growth in GWA's customer base along with improved meter management. Also illustrated in Table II, water revenues are estimated to reach $69 million and wastewater $39 million combined with $5 million from legislative surcharges, Other revenues and System Development Charges.

Table II

REVENUES COMPARATIVE	Audited 2017	Annualized 2018	Projection 2019
Category			
Water	$ 63,976,842	$ 65,581,775	$ 69,758,957
Wastewater	37,194,332	38,363,960	$ 38,967,180
Legislative Surcharge	3,207,226	3,359,312	3,536,002
Other Revenues	435,514	450,809	459,046
System Development Charge	871,946	1,099,526	1,173,322
Total	**$ 105,685,861**	**108,855,382**	**$ 113,894,507**

Tables III and IV illustrate anticipated water demand and wastewater discharge respectively by customer classes. With anticipated improvements to GWA's meter management and replacement program, a moderate increase in water billed and or charged is expected to be realized in FY2019. Water kgal demand is expected to reach six (6) million thousand gallons (kgal) or approximately thirty-three (33) million kgal or 6% above levels projected for FY2018. Concurrently, a corresponding increase in wastewater discharge is anticipated. from 4,085,191 million kgals in FY2018 to 4,434,470 million kgals in FY2019.

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

Table III

WATER DEMAND	Audited FY2017	Annualized FY2018	Projection FY2019
Total Demand (Kgals)	**5,711,790**	**5,676,349**	**6,007,000**
Class Type			
Residential	3,206,811	3,253,920	3,538,561
Commercial	964,639	884,347	907,887
Federal	2,508	1,341	1,327
Government	448,430	454,351	465,345
Hotel	1,004,525	1,005,396	1,005,313
Golf	5,252	2,815	2,617
Agriculture	69,482	66,704	78,009
Irrigation	10,143	7,477	7,942
	5,711,790	**5,676,349**	**6,007,000**

Table IV

WASTEWATER DISCHARGE	Audited FY2017	Annualized FY2018	Projection FY2019
Total Demand (Kgals)	**4,073,060**	**4,131,508**	**4,434,470**
Class Type			
Residential	1,861,586	1,882,541	2,169,836
Commercial 1	451,470	434,209	447,163
Commercial 2 & Hotel	740,545	742,306	742,306
Commercial 3	147,306	138,573	140,004
Federal (Navy/Air Force)	532,428	577,658	577,658
Government	339,725	356,220	357,502
	4,073,060	**4,131,508**	**4,434,470**

OPERATION & MAINTENANCE

Table V presents a comparative overview of actual operating and maintenance expenses by fiscal year to projections for FY2019. As shown, operating expense are projected to increase 4% above annualized expenses for FY2018. Table V also summarizes budget allocations by major expense categories: $15 million for power purchases; $9 million in water purchases; $24 million for salaries and benefits; $11 million in administrative and general expenses; $5 million in contractual services; and more than $3 million for retirees' supplemental annuities and health care costs funded by the legislative surcharge.

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

Utilities

- Water purchases to supplement GWA's water supply for residents in certain parts of the island is anticipated to remain comparable to levels observed in FY2018.

- Power purchases are driven by water production, wastewater treatment and the conveyance of both. The projected demand for kilowatt hours remain relatively unchanged for FY2019.

Salaries & Wages

- Personnel costs are projected at $24 million to fund 400 authorized full-time employees. No new positions are requested. This projected cost represents a 7% increase from Fiscal 2018 personnel costs of $23 million.

Administrative & General

- Administrative and General expenses include sludge, training, regulatory, advertising and other costs. Combined, these expenses remain relatively flat with a 1% increase from $10.6 million in FY 2018 to $10.7 million in FY2019.

Contractual Services

- Contractual services is comprised of costs for building rental, equipment rental , financial and information technology support and laboratory testing among a mix of other services. This budget plan funds an additional $580,000 for outsourcing non-core services to expedite response time to line breaks, equipment failure and scheduled corrective and preventive maintenance.

Table V

	Audited	Annualized	Projection
	2017	2018	2019
OPERATIONS & MAINTENANCE COSTS			
Power Purchases	$ 12,076,262	14,574,680	$ 14,775,781
Water Purchases	7,309,125	9,081,405	9,167,696
Salaries and Benefits	19,543,661	22,926,713	24,435,234
Administrative and General	10,302,366	10,679,611	10,777,027
Contractual	4,087,430	4,536,161	5,111,471
Retiree Benefits	3,376,745	3,451,848	3,622,150
Total Operating Expenses	**$ 56,695,590**	**65,250,418**	**$ 67,889,359**

Doc. No. 34GL-18-2268.*

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

Table VI presents the composition of personnel costs: net salaries of $18 million which includes all overtime, night differential and holiday pay, pay for performance and costs to migrate employees to the next market percentile. Retirement is calculated at 26% of base salaries and comprises the largest portion of benefit costs. Medical, dental and life insurance coverage are based on prevailing rates.

Table VI

Salaries & Benefits	Audited FY 2017	Annualized FY 2018	Projection FY 2019
Salaries *	$ 14,540,080	16,781,877	$ 17,688,381
Benefits	5,003,581	6,144,836	6,746,853
Total Salaries & Benefits	**$ 19,543,661**	**22,926,713**	**$ 24,435,234**
FTEs	**395**	**395**	**400**

* Net of Capitalized Labor

Table VII summarizes the distribution of Administrative and General expenses. Combined, these costs increase by 1%. Individual expense categories with noted increases from FY2018 year-end totals include training, regulatory costs and advertising.

- Training and travel will more than double from $157,000 to $365,000; a major portion ($205,000) of which will cover GWA's matching requirements for a recently approved training grant. As noted earlier, more attention is being focused on refining and strengthening GWA's workforce. This grant will jump start a comprehensive and recurring operational training program intended to fully implement a sound asset management program. The remaining travel and training funds will be used to support other staff development opportunities.
- Regulatory expenses are those costs associated with oversight by the Public Utilities Commission (PUC). It includes annual assessments for PUC administration and other stipulated reviews. With continued activity in capital improvement projects and updating the island's Water Resource Master Plan, GWA anticipates additional engagements with the PUC increasing regulatory costs by $50,000.
- Advertising funds are used expand GWA's outreach for a variety of public relations strategies to include among others, reinforcing public confidence and trust in GWA; and providing relevant and quality customer service and information. In FY2019 advertising increases by 6% to $150,000 to be used across multi-media platforms from traditional electronic media, to social networks, public events and industry specific forums.

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

Table VII

	Audited 2017	Annualized 2018	Projection 2019
Administrative and General Expenses			
Sludge	$ 1,685,842	1,342,658	$ 1,845,255
Chemicals	2,088,043	2,387,825	2,229,617
Materials & Supplies	1,545,452	2,197,346	2,263,266
Transportation Expense	644,933	659,175	463,771
Telephone & Communication	130,606	180,530	180,650
Claims	265,812	100,668	101,000
Insurance	1,087,233	910,478	953,530
Training & Travel	276,654	157,441	365,000
Advertising	107,853	141,740	150,000
Regulatory	289,613	243,101	300,348
Bad Debts Provision	1,316,397	1,316,347	813,009
Miscellaneous	863,959	1,042,301	1,111,581
Total A&G	**$ 10,302,397**	**10,679,611**	**$ 10,777,027**

Table VIII reflects the contractual expenses by type of service. The increase of $580,000 earmarks $450,000 for technical expertise and other operating services; an additional $90,000 for heavy equipment rental and $40,000 for information technology. The contractual budget increases to $5 million in FY2019 from $4 million in FY2018.

Table VIII

	Audited 2017	Annualized 2018	Projection 2019
Contractual Expense			
Other	$ 1,880,966	2,150,680	$ 2,561,490
Rental (Building)	438,678	424,159	460,332
Rental (Equipment)	712,488	872,453	959,755
Finance & Information Technology	922,812	665,472	705,400
Lab Testing	127,518	416,197	418,349
Legal	4,969	7,200	6,145
Total Contractual	**$ 4,087,431**	**4,536,161**	**$ 5,111,471**

- Other contractual services classifies a myriad of services into a single budget category. This funds activites outsourced to perform grounds maintenance, road restoration, machining services, pump and motor rewinds and cover other expertise required to assess and repair equipment or instruments at facilities as well as engineering service support. Increasing funds for these particular areas will reduce any back-logs in work orders as GWA reforms its approach to preventive maintenance.

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

- Equipment rental is intended to augment GWA's existing fleet. Outsourcing plans will require increase funding levels for rentals for more commonly used equipment like backhoes and dump trucks to prevent delays in line repairs when GWA-owned equipment is unavailable due to maintenance or in-use at other job sites. This plan provides a 10 percent increase for equipment rental to $960,000. Procurement of long-term leases are in progress to replace short-term rentals to provide cost benefits and equipment readiness.
- Information technology includes costs for annual maintenance and support of computer hardware and software. Technological advances are introducing better ways to conduct business. Provisions for maintenance support of new technology that serve asset management, various reporting tools, and other computer solutions is included in this budget plan.

CONCLUSION

While this fiscal year budget provides solely for the operational plans over the next 12 months, it sets the stage as GWA develops the next strategic 5-year financial plan. The plan will consider the most affordable options to encompass CIP programs, grow the working teams to operate new and maintain existing facilities, and provide optimal services for residents, the environment and the island community.

DRAFT

GUAM WATERWORKS AUTHORITY

APPENDICES

(A – F)

GUAM WATERWORKS AUTHORITY
PROPOSED FY2019 BUDGET

	Audited 2017	Annualized 2018	Projection 2019
Basic Charge -Water/Wastewater	3.50%	4.00%	0.00%
Lifeline Increase (discounted rate)	3.50%	0.00%	0.00%
Non-Lifeline Increase/Demand	3.50%	4.00%	0.00%
Legislative Surcharge	3.70%	3.75%	3.75%
Customer Growth	0.00%	0.00%	0.50%
OPERATING REVENUES			
Water Revenues	$ 63,976,842	$ 65,581,775	$ 69,758,957
Wastewater Revenues	37,194,332	38,363,960	38,967,180
Legislative Surcharge	3,207,226	3,359,312	3,536,002
Other Revenues	435,514	450,809	459,046
System Development Charge	871,946	1,099,526	1,173,270
Total Operating Revenues	105,685,861	108,855,382	113,894,455
O & M EXPENSES			
Power Purchases	12,076,262	14,574,680	14,775,781
Water Purchases	7,309,125	9,081,405	9,167,696
	19,385,388	23,656,086	23,943,477
Salaries and Benefits	19,543,661	22,926,713	24,435,234
Intentionally Left Blank			
Administrative and General Expenses	10,302,366	10,679,611	10,777,027
Intentionally Left Blank			
Depreciation Expense	16,824,455	18,338,100	21,108,780
Intentionally Left Blank			
Contractual Expense	4,087,430	4,536,161	5,111,471
Intentionally Left Blank			
Retiree Supplemental Annuities/Health care costs	3,376,745	3,451,848	3,622,150
Total Operating Expenses	**73,520,044**	**83,588,518**	**88,998,139**
Total Operating Expenses Net of Depreciation	**56,695,590**	**65,250,418**	**67,889,360**
Earnings (Loss) from Operations	32,165,817	25,266,864	24,896,316
Interest Income-Bond 2013,2014 Refunding,2016,2017 Refunding	784,252	2,491,439	1,019,316
Interest Income-Other Funds	120,382	418,255	166,274
Interest Income-SDC	12,717	89,492	24,862
Interest Expense-Bond 2013,2014 Refunding,2016,2017 Refunding	(26,648,925)	(26,288,346)	(28,653,415)
Interest Expense-BOG	(524,835)	(364,643)	(237,144)
AFUDC	14,066,891	14,750,000	13,887,666
Amortization of Discount, Premium and Issuance Costs	742,328	(372,892)	(213,575)
Grants & other contributions (net of federal expenditures)	21,301,013	10,366,651	66,398,461
Loss on Defeasance and other deferred outflows	(1,258,945)	302,858	(194,412)
Net Income (Loss)	40,760,696	26,659,677	77,094,350

GUAM WATERWORKS AUTHORITY
PROPOSED FY2019 BUDGET

	Audited 2017	Annualized 2018	Projection 2019
INCREASE (DECREASE) in Capital	40,760,696	26,659,677	77,094,350
BOND DEBT SERVICE	**24,562,301**	**26,738,920**	**31,368,415**
DEBT SERVICE COVERAGE CALCULATION - Section 6.12			
Earnings (Loss) from Operations	32,165,817	25,266,864	24,896,316
Investment Income-Other funds	120,382	418,255	166,274
COLA	594,000	594,000	623,700
System Development Charge	(871,946)	(1,099,526)	(1,173,270)
Depreciation	16,824,455	18,338,100	21,108,780
Balance Available for Debt Service - Section 6.12	48,832,707	43,517,693	45,621,800
Debt Service Coverage (1.25X) - Section 6.12	1.99	1.63	1.45
DEBT SERVICE COVERAGE CALCULATION - PUC Debt Ratio			
Balance Available for Debt Service	48,832,707	43,517,693	45,621,800
Available for Debt Service -Reserve for Debt Service	11,217,733	11,217,733	11,217,733
Transfer Reserves - O & M and Debt Service			
Balance Available for Debt Service - PUC	60,050,441	54,735,426	56,839,534
Debt Service Coverage (1.75X) - PUC	2.44	2.05	1.81
CASH FLOW STATEMENT			
Net Income (Loss)	40,760,696	26,659,677	77,094,350
Depreciation & Amortization	17,566,783	17,965,208	20,895,205
AFUDC	(14,066,891)	(14,750,000)	(13,887,666)
Principal Payments - Bonds	(5,040,000)	(5,200,000)	(5,715,000)
Principal Payments-Subordinate loan	(2,863,988)	(3,018,019)	(3,180,334)
Loss on Defeasance Bond and other deferred cost	(559,707)	(540,427)	407,987
System Development Charge	(871,946)	(1,099,526)	(1,173,270)
PayGo/CAPEX	(11,002,200)	(10,463,516)	(13,152,585)
Working Capital Reserve for O & M	(9,498,345)	(1,000,000)	(3,347,412)
Grants and Contributions	(21,301,013)	(10,366,651)	(66,398,461)
Transfer from Capitalized Interest Fund	7,165,500	1,771,471	-
Prior Year Adjustment & Loss on Asset Disposal/Invty writedown	1,076,324	(61,077)	-
Cash Surplus (Deficit)	1,365,212	(102,860)	(8,457,186)
Beginning Balance	8,157,430	9,522,642	9,419,782
Ending Balance	$ 9,522,642	$ 9,419,782	$ 962,596

Appendix A
(Continuation)
Page | 13

GUAM WATERWORKS AUTHORITY Summary of Revenues	Audited FY 2017	Annualized FY 2018	Projection FY 2019
Water Revenues	**$ 63,976,842**	**$ 65,856,953**	**$ 69,758,957**
Residential	30,959,753	32,569,048	35,960,254
Basic Charge	10,168,845	10,617,782	**10,630,534**
Lifeline Demand Charge	4,869,888	5,061,294	**5,063,209**
Non-Lifeline Demand Charge	15,921,020	16,889,973	**20,266,511**
	30,959,753	32,569,048	**35,960,254**
Commercial	13,441,130	12,904,721	13,220,516
Basic Charge	1,055,168	1,094,120	**1,095,541**
Non-Lifeline Demand Charge	12,385,963	11,810,602	**12,124,976**
	13,441,130	12,904,721	**13,220,516**
Federal	38,059	24,038	23,862
Basic Charge	5,859	6,135	**6,135**
Non-Lifeline Demand Charge	32,201	17,903	**17,728**
	38,059	24,038	**23,862**
Government	6,012,974	6,337,425	6,485,491
Basic Charge	255,131	269,499	**270,737**
Non-Lifeline Demand Charge	5,757,844	6,067,926	**6,214,754**
	6,012,974	6,337,425	**6,485,491**
Hotel	13,009,693	13,543,555	13,542,663
Basic Charge	111,596	116,329	**116,550**
Non-Lifeline Demand Charge	12,898,098	13,427,226	**13,426,114**
	13,009,693	13,543,555	**13,542,663**
Golf	77,301	47,895	45,398
Basic Charge	9,865	10,305	**10,444**
Non-Lifeline Demand Charge	67,436	37,590	**34,953**
	77,301	47,895	**45,398**
Agriculture	383,460	386,344	434,782
Basic Charge	97,193	100,249	**100,196**
Non-Lifeline Demand Charge	286,267	286,096	**334,586**
	383,460	386,344	**434,782**
Irrigation	54,471	43,927	45,990
Basic Charge	11,161	10,736	**10,736**
Non-Lifeline Demand Charge	43,310	33,191	**35,254**
	54,471	43,927	**45,990**
Total	**$ 63,976,842**	**$ 65,856,953**	**$ 69,758,957**

GUAM WATERWORKS AUTHORITY
Summary of Revenues

	Audited FY 2017	Annualized FY 2018	Projection FY 2019
Wastewater Revenues	**$ 37,194,332**	**$ 38,212,328**	**$ 38,967,180**
Residential	**$ 8,834,033**	**$ 8,888,921**	**$ 9,041,603**
Lifeline Demand Charge	8,834,033	8,888,921	9,041,603
Non-Lifeline Demand Charge	-	-	-
	8,834,033	8,888,921	**9,041,603**
Commercial 1	**$ 3,245,023**	**$ 3,092,072**	**$ 3,292,551**
Lifeline Demand Charge	-	-	-
Non-Lifeline Demand Charge	3,196,409	3,092,072	3,292,551
	3,196,409	3,092,072	**3,292,551**
Commercial 2 & Hotel	**$ 12,767,000**	**$ 13,292,819**	**$ 13,309,258**
Lifeline Demand Charge	-	-	-
Non-Lifeline Demand Charge	12,767,000	13,292,819	13,309,258
	12,767,000	13,292,819	**13,309,258**
Commercial 3	**$ 3,522,087**	**$ 3,502,447**	**$ 3,481,390**
Lifeline Demand Charge	-	-	-
Non-Lifeline Demand Charge	3,522,087	3,502,447	3,481,390
	3,522,087	3,502,447	**3,481,390**
Navy/Airforce	**$ 5,388,168**	**$ 5,694,826**	**$ 6,079,738**
Lifeline Demand Charge	-	-	-
Non-Lifeline Demand Charge	5,388,168	5,694,826	6,079,738
	5,388,168	5,694,826	6,079,738
Government	**$ 3,438,021**	**$ 3,741,243**	**$ 3,762,640**
Lifeline Demand Charge	-	-	-
Non-Lifeline Demand Charge	3,438,021	3,741,243	3,762,640
	3,438,021	3,741,243	3,762,640
	$ 37,194,332	**$ 38,212,328**	**$ 38,967,180**

GUAM WATERWORKS AUTHORITY Legislative Surcharge	Audited FY 2017	Annualized FY 2018	Projection FY 2019
Water	2,166,056	2,279,837	2,413,793
Residential	944,424	1,031,541	1,146,341
Commercial	497,322	483,927	495,769
Federal	1,408	901	895
Government	222,480	237,653	243,206
Hotel	481,359	507,883	507,850
Golf	2,860	1,796	1,702
Agriculture	14,188	14,488	16,304
Irrigation	2,015	1,647	1,725
Total	2,166,056	2,279,837	2,413,793
Wastewater	1,041,170	1,099,628	1,122,209
Total	**3,207,226**	**3,379,465**	**3,536,002**

GUAM WATERWORKS AUTHORITY
Salaries & Benefits

	FY 2017	FY 2018	FY 2019
Wages (*)	**13,291,184**	**16,808,619**	19,443,381
Migration (10th & 15th Percentile)		**750,000**	700,000
Total Wages	**13,291,184**	**17,558,619**	20,143,381
Premium Pay			
Overtime	1,069,302	1,799,678	1,000,000
Night Differential	67,768	89,078	95,000
Holiday	111,827	134,502	150,000
Total Premium Pay	**1,248,896**	**2,023,258**	**1,245,000**
Gross Salaries & Premium Pay	**14,540,080**	**19,581,877**	**21,388,381**
Less Capitalized Labor		(2,800,000)	(3,700,000)
Net Salaries & Premium Pay	**14,540,080**	**16,781,877**	**17,688,381**
Benefits			
Insurance (Life, Medical & Dental)	1,017,460	1,236,887	1,409,645
Medicare	222,671	267,647	281,929
Retirement	3,763,450	4,640,302	5,444,147
Potential Savings (26%)			(388,868)
Total Benefits	**5,003,581**	**6,144,836**	**6,746,853**
Total Salaries & Benefits	**19,543,661**	**22,926,713**	**24,435,234**

* includes pay for performance

Full-Time Employee Count			
***Filled**	336	354	354
***Vacant**	59	41	41
New			5
TOTAL	**395**	**395**	**395**

* as of July 2018

PAYGO	ACTUAL FY2018	PROJECTED 2019
WATER		
1. Distribution		
PRV	$ 198,043	250,000
Valves - Main Lines	140,286	500,000
Hydrants	442,638	250,000
Pumps		500,000
Motors		300,000
Pipes		100,000
Pumping Equipments		100,000
	$ 780,967	**$ 2,000,000**
2. Production		
Submersible Pumps		$ 750,000
Submersible Motors		$ 500,000
Cables		$ 350,000
Pipes		$ 350,000
Deep Well Facility Improvements & Rehabilitation		472,585
	$ -	**$ 2,422,585**
WASTEWATER		
1. Maintenance Section		
Pump & Motor Rebuild/Rewind	250,000	-
Spare Parts Mgt.	77,272	-
Pumps		$ 450,000
Motors		300,000
Pipes		300,000
Pump Facility Equipment		200,000
Headworks		200,000
Metering Pump Polymer System		40,000
Centrifuge		65,000
Polyaluminum Chloride System Parts		40,000
Clarifiers		105,000
Coagulation/Floculation Chamber Parts		40,000
Main Water Booster Pump Parts		40,000
	327,272	**1,780,000**
2. Collection & Pumping		
Pump Station Operational Repairs and Maintenance	250,000	-
Emergency Responses	100,000	-
Rehabilitation of Sewer Lines	3,500,000	500,000
	3,850,000	500,000
3. Treatment		
Pumps		200,000
Motors		100,000
	-	**300,000**
Utility Services		
Meter Replacement - Small Meters	1,546,688	500,000
Replacement of Transponders/Transmitters	456,245	
Meter Replacement - Large Meters > 2"	-	200,000
	2,002,933	**700,000**
Transportation		
2WD Trucks (9)		360,000
Compact Cargo Van (2)		70,000
Ford, 2WD, U/T (1)		60,000
Ford, F350, U/T (2)		140,000
Dump Truck (16 cu.yd.)		120,000
Backhoe 4WD (w/Trailer)		300,000
Boom Truck (10 T)		300,000
Tractor Truck		200,000
		1,550,000

PAYGO	ACTUAL FY2018	PROJECTED 2019
Information Technology		
Network Switches-Core Switch/Cisco Switch compliance		350,000
New Computers & Software		300,000
CCB Cloud Disaster Recovery		350,000
Design Renovation Raised Floor		500,000
IBM OS Upgrade		350,000
Financial Application		500,000
		2,350,000
Other Projects		
Land Surveying/Property Delineation		200,000
Facilities Expansion(FMES & Warehouse)		500,000
Systems Planning & Facility Studies		500,000
Facility Security System- Different sites		350,000
		1,550,000
PayGo/(Master Plan)		
TOTAL	**$ 2,330,205**	**$ 13,152,585**

Appendix F
(Continuation)
Page | 19

Guam Waterworks Authority
Schedule of Debt Service

	FY 2017	FY 2018	FY 2019
Senior Lien Debt Service			
Series 2010 Revenue Bonds - Principal	1,655,000	1,725,000	1,800,000
Series 2010 Revenue Bonds - Interest	6,410,600	262,375	184,750
Total	8,065,600	1,987,375	1,984,750
Series 2013 Revenue Bonds - Principal	-	-	-
Series 2013 Revenue Bonds - Interest	9,331,688	9,331,688	9,331,688
Total	9,331,688	9,331,688	9,331,688
Series 2014 Refunding Revenue Bonds - Principal	3,385,000	3,475,000	3,620,000
Series 2014 Refunding Revenue Bonds - Interest	3,780,014	3,694,847	3,588,477
Total	7,165,014	7,169,847	7,208,477
Series 2016 Revenue Bonds - Principal	-	-	-
Series 2016 Revenue Bonds - Interest	7,165,500	7,165,500	7,165,500
Total	7,165,500	7,165,500	7,165,500
Series 2017 Refunding Bonds - Principal	-	-	295,000
Series 2017 Refunding Bonds - Interest	-	2,855,981	5,383,000
Total	-	2,855,981	5,678,000
Bond Debt Service	**31,727,801**	**28,510,390**	**31,368,415**
Senior Lien - Bond Debt Service			
Principal	5,040,000	5,200,000	5,715,000
Interest	26,687,801	23,310,390	25,653,415
Less: Capitalized Interest	(7,165,500)	(1,771,471)	-
Interest Net of Cap I	19,522,301	21,538,920	25,653,415
Debt Service- Bonds Net of Cap I	**24,562,301**	**26,738,920**	**31,368,415**
Subordinate Loan			
Principal	2,863,988	3,018,019	3,180,334
Interest	553,489	399,458	237,144
Total Subordinate debt service	**3,417,477**	**3,417,477**	**3,417,477**
Grand Total Debt Service- Bonds and Subordinate	**27,979,778**	**30,156,397**	**34,785,892**

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

TO: **Consolidated Commission on Utilities**

FROM: **General Manager**

DATE: **August 28, 2018**

SUBJECT: **General Manager's Report**

This report provides an update on key issues:

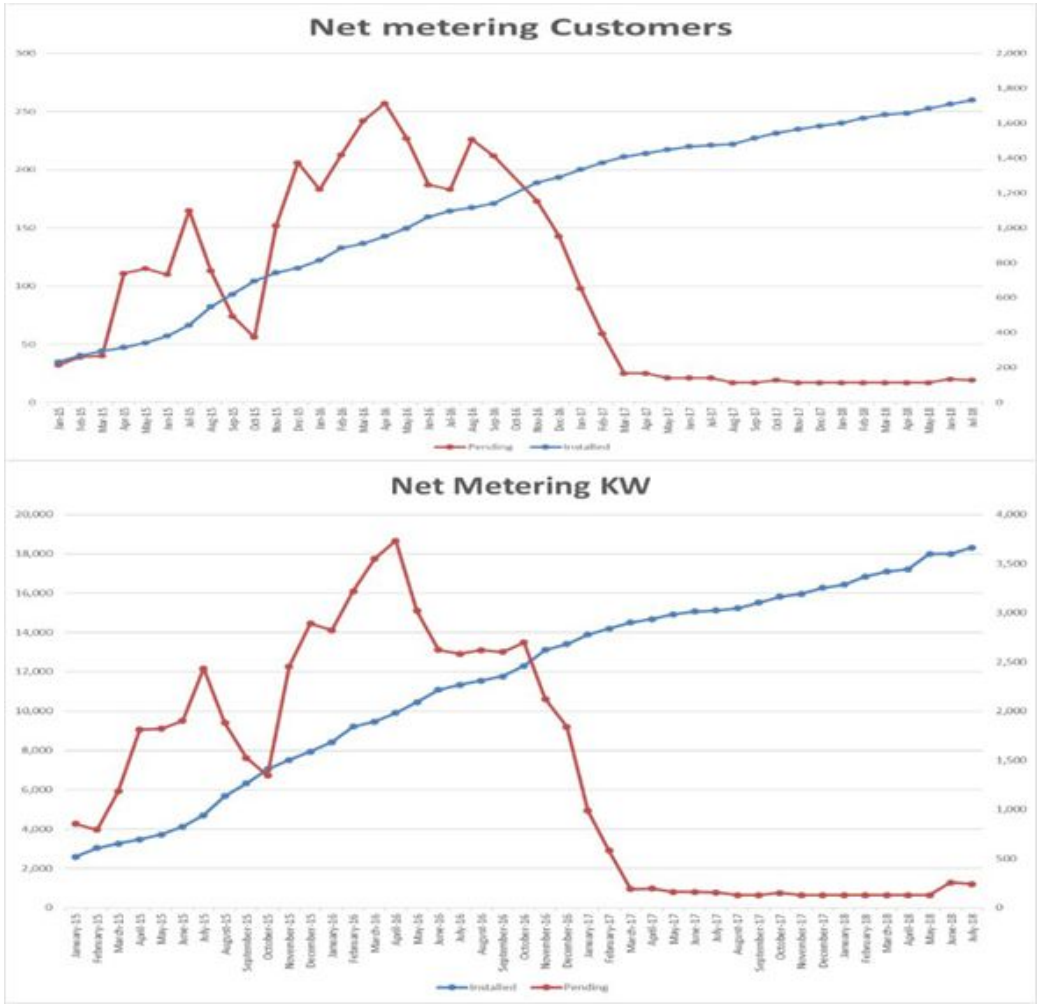
1. **Generation System:** The following summarizes the expected generation capacity projection for **August 2018**. All base load units are expected to be in operation for the month. The Cabras steam units are currently limited to 55 MW each to minimize the potential for boiler tube leaks which is a common occurrence for them.

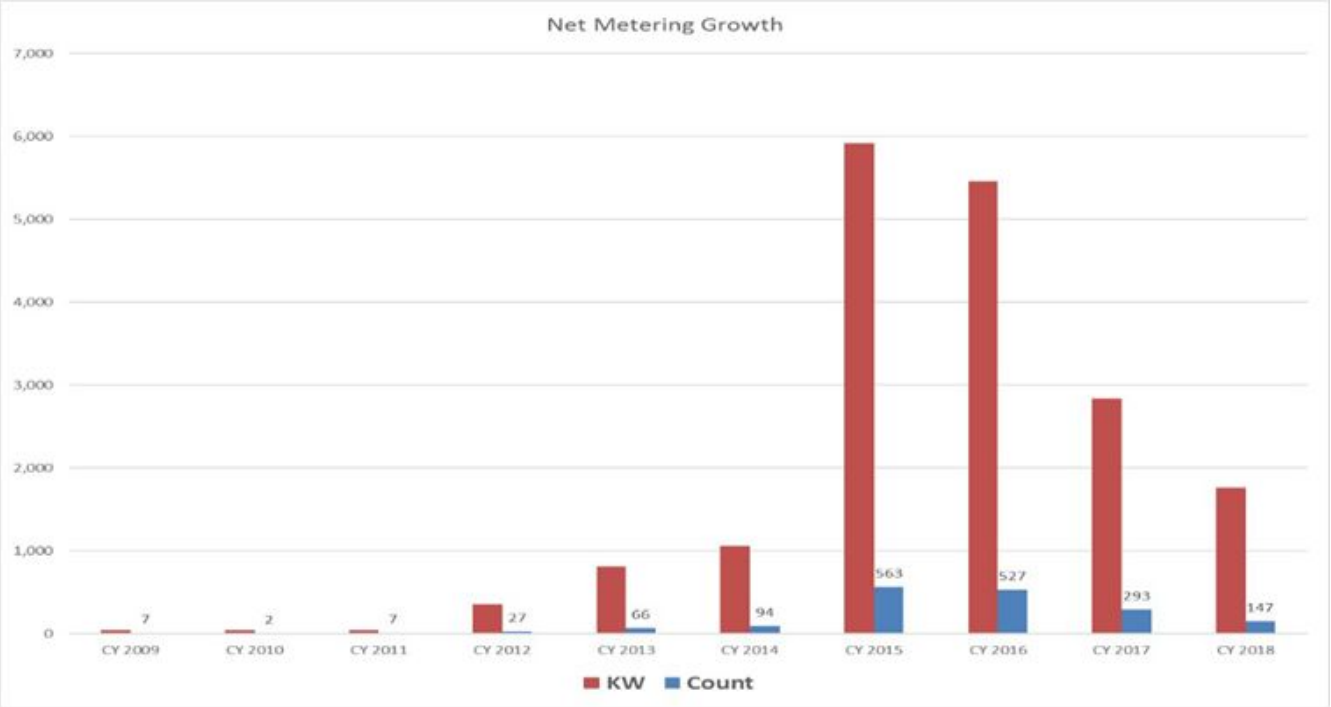
   August 2018 Projected Capacity: **360 MW**
   August 2018 Projected Demand: **250 MW**
   Anticipated Reserve Margin: **110 MW**

2. Net metering Summary Ending July 2018:

Description:	Count	Kw
Active	**1,733**	**18,315**
Pending	19	241
Totals:	1,752	18,556

Service:	Count	KW	Kw/Customer
Residential	1,642	15,049	9.2
Others	91	3,266	35.9
Total:	1,733	18,315	10.6
% Residential	**94.7%**	**82.2%**	
Estimated 12 Months Revenue Impact:	**$3,411,623**		


Net metering Customers
Net Metering KW



3. Demand Side Management (DSM) Program Expenses Thru July 2018:

All Expenses – Fiscal Year

Description	FY16	FY17	FY18 as of July 31	Total to Date
Regular/OT Pay	$11,348.80	$22,256.00	$19,027.79	$52,632.59
Other Contractual	28,278.50	$85,550.05	$38,992.25	$152,820.80
Bank Fees	$155.00	$1,032.06	$1,055.08	$2,242.14
Paid Rebates-Split AC	$154,700.00	$557,275.00	$911,750.00	$1,623,725.00
Paid Rebates-Central AC	$3,400.00	$8,200.00	$2,300.00	$13,900.00
Paid Rebates-Washer/Dryer	$2,800.00	$7,425.00	$23,000.00	$33,225.00
Total Expenses	**$200,682.30**	**$681,738.11**	**$996,125.12**	**$1,878,545.53**


Demand Side Management Program Growth
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
FY 2016
FY 2017
FY 2018

SUMMARY

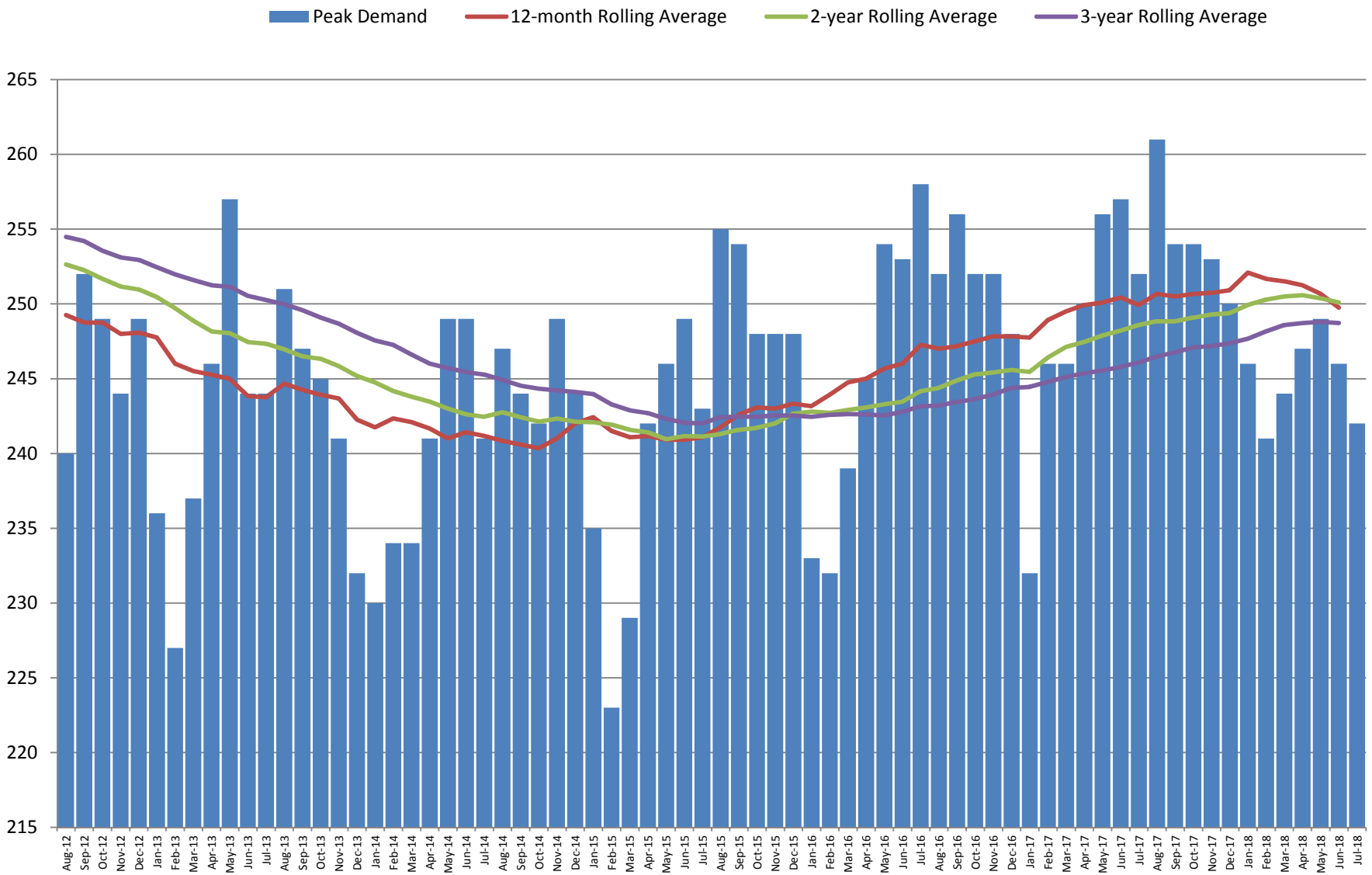
DESCRIPTION	AMOUNT
Initial DSM Budget FY'16	$1,806,014.00
Interest Income as of July 18	$4,367.24
Total Expense	$1,878,545.53
Ending Balance as of July 18	$(68,164.29)
Addtl. Budget: Approved (FY'18)	$1,139,189.00
Total Ending Balance as of July 18	**$1,071,024.71**

4. **New Power Plant Specifications:** GPA has submitted the bid specifications for the new power plant to PUC for approval. ALJ Horecky has placed the item on the agenda for the August 30, 2018 regular PUC meeting.

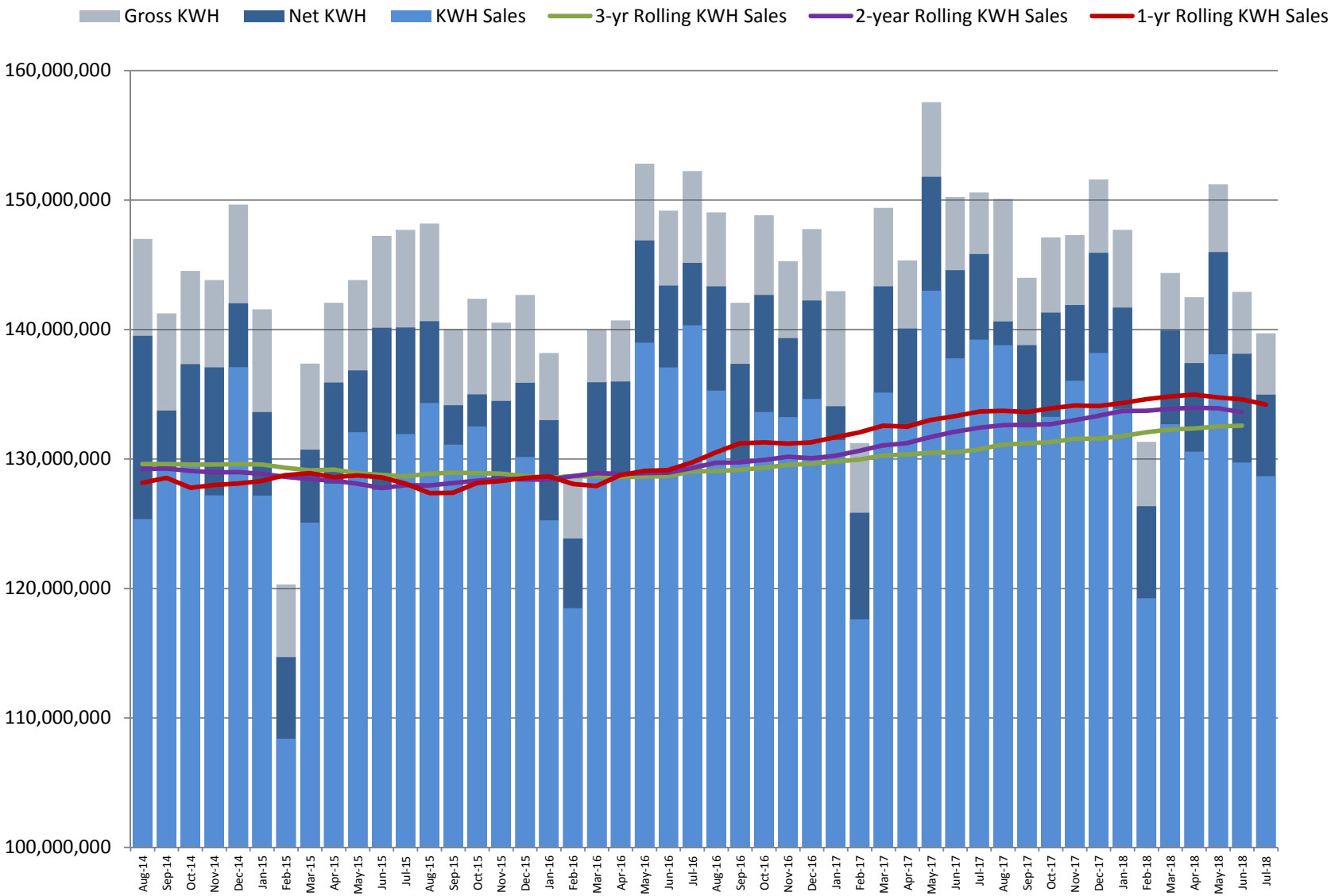
5. **Phase II Renewable Contracts:**
   - **Contract signing for HANWAH 60 MW Renewable project was held on Wednesday August 22nd at 10am here at Fadian.**
   - **Contract Signing for KEPCO- LG CNS 60 MW Renewable project was held onFriday August 24th here at Fadian**
   - **These two contracts when completed in 2021 will save the ratepayers over $43M over the first 5 years or operations (estimated at a LEAC of $0.11/Kwh)**

6. **Key Performance Indicators:** The following are indicators thru July 2018.

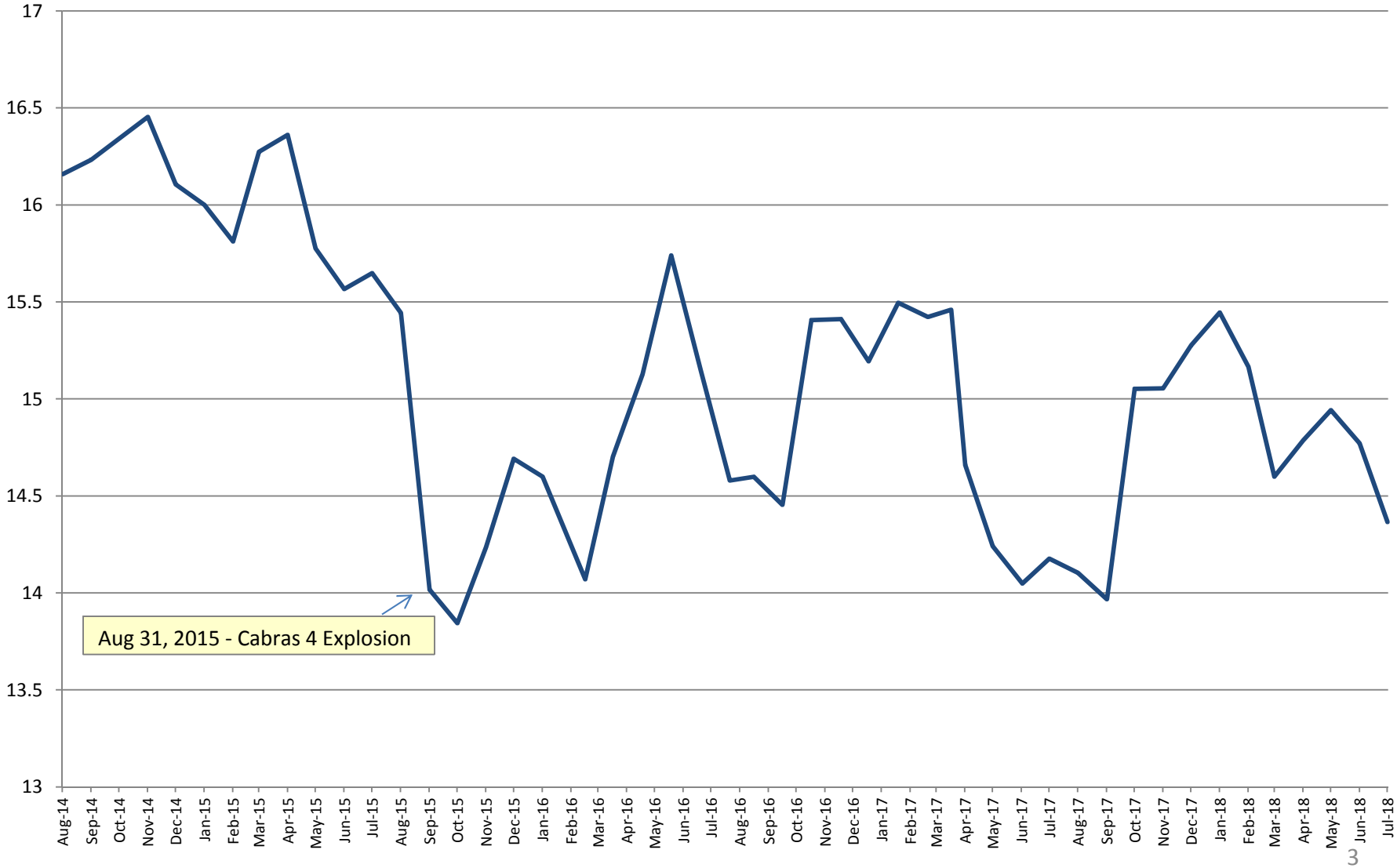
Historical Monthly Peak Demand
Aug 2012 - July 2018



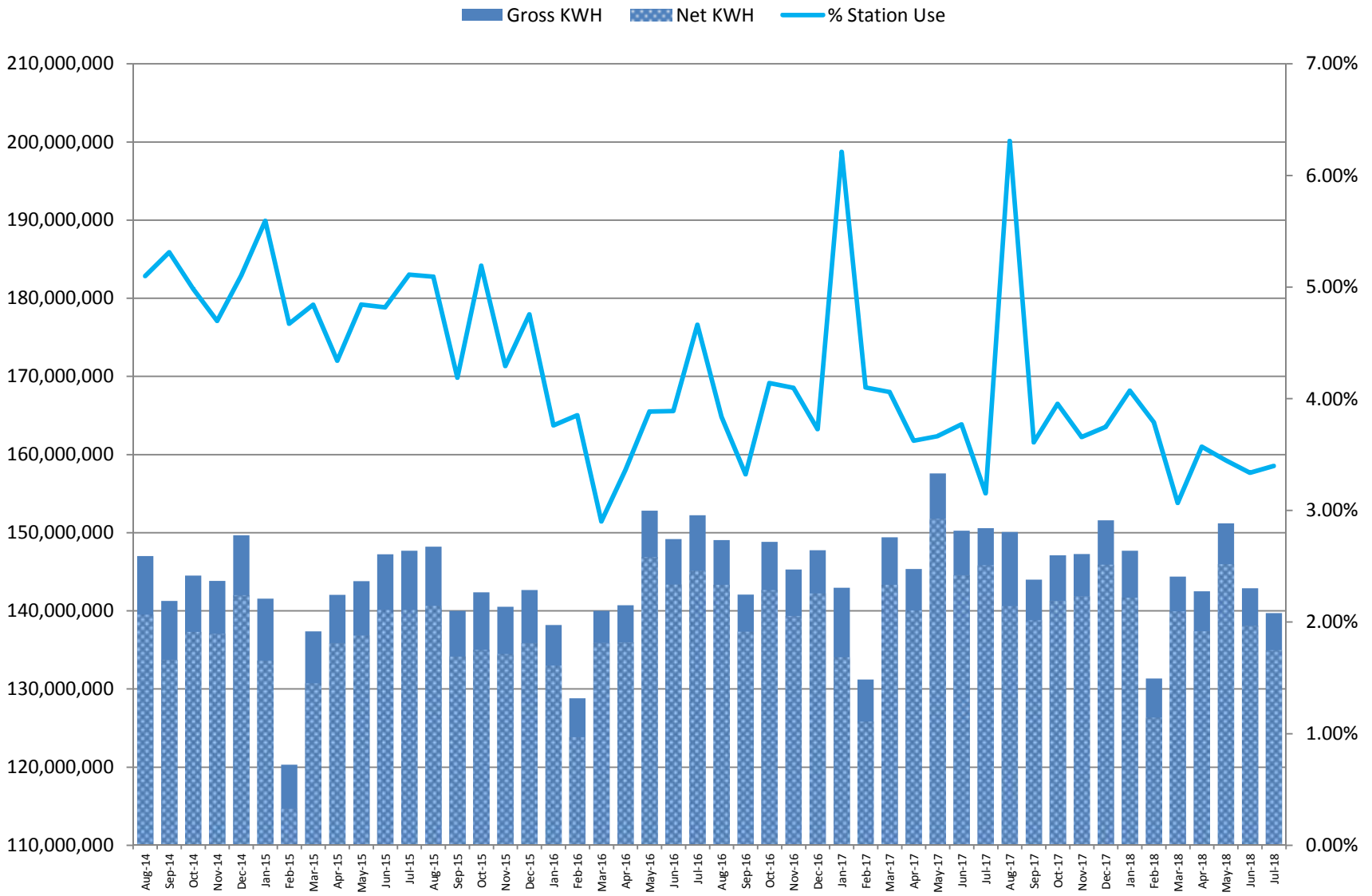
Historical KWH Sales
Aug 2014 - July 2018



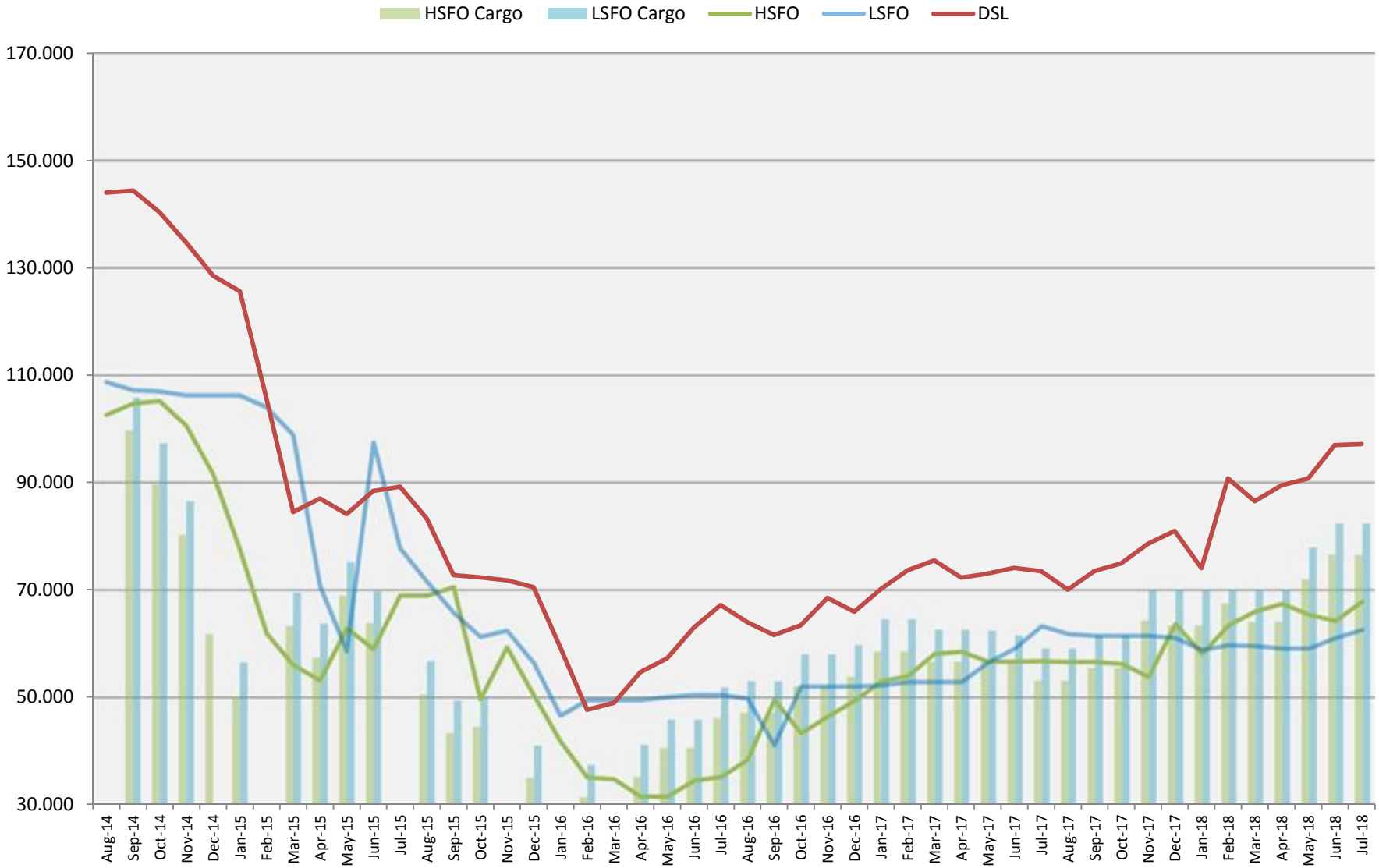
SYSTEM GROSS HEAT RATE
(KWH/Gal)
Aug 2014 - July 2018



Gross and Net Generation (KWH)
Aug 2014 - July 2018

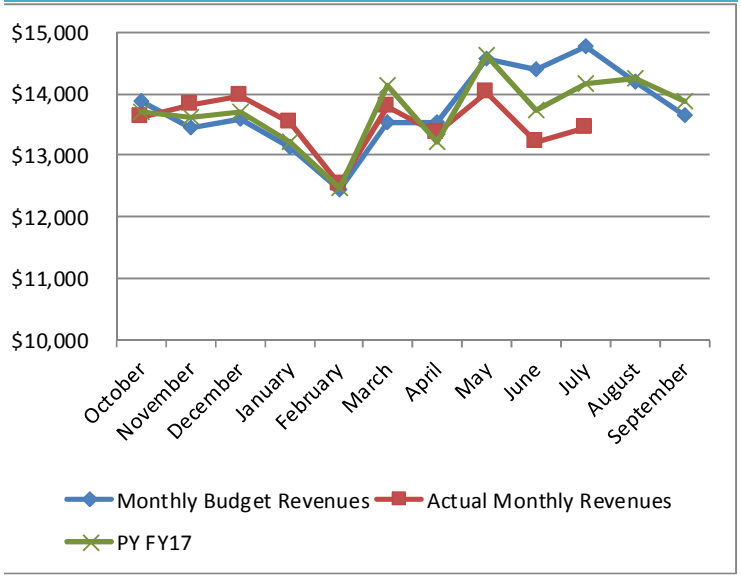


Fuel Cargo and Fuel Consumption Costs ($/bbl)
Aug 2014 - Jul 2018



July 2018 Monthly Financial Highlight

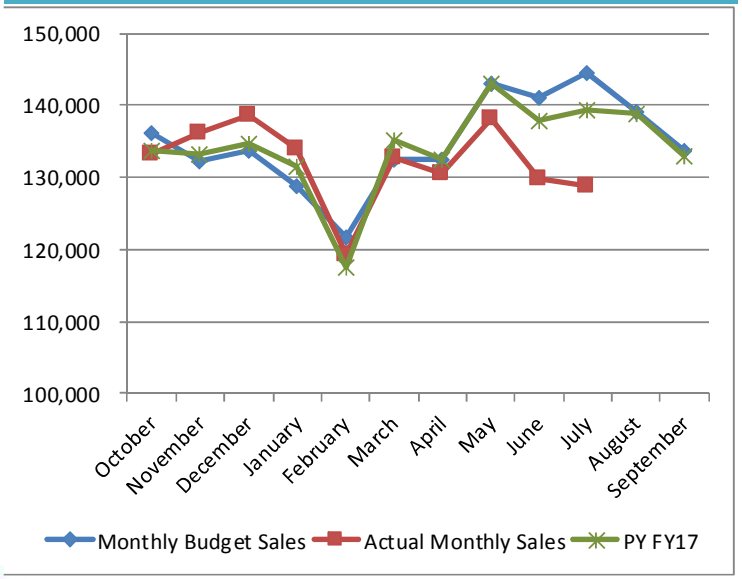
Base Rate Revenue $000



Through July 31, 2018

$000	Monthly Budget Revenues	Actual Monthly Revenues	Variance		PY FY17	CY vs PY Variance	
October	$ 13,873	$ 13,625	$ (248)	↓	$ 13,702	$ (77)	↓
November	13,451	13,827	$ 376	↑	13,622	$ 205	↑
December	13,599	13,968	$ 369	↑	13,695	$ 273	↑
January	13,114	13,534	$ 420	↑	13,220	$ 314	↑
February	12,422	12,522	$ 100	↑	12,454	$ 68	↑
March	13,534	13,776	$ 242	↑	14,123	$ (347)	↓
April	13,525	13,351	$ (174)	↓	13,224	$ 127	↑
May	14,568	14,011	$ (557)	↓	14,617	$ (606)	↓
June	14,386	13,201	$ (1,185)	↓	13,722	$ (521)	↓
July	14,759	13,446	$ (1,313)	↓	14,151	$ (705)	↓
August	14,183				14,244		
September	13,651				13,874		
Total	**$ 165,064**	**$ 135,261**	**$ (1,969)**		**$ 164,649**	**$ (1,269)**	

MWh Sales

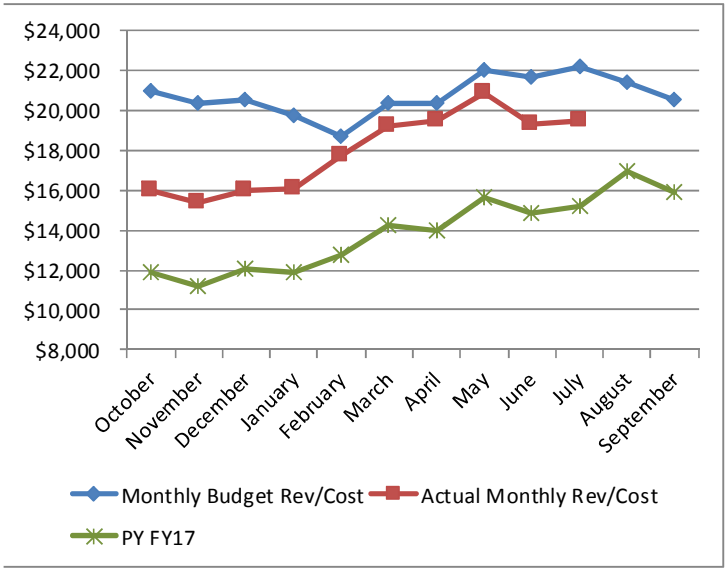


Through July 31, 2018

gwh	Monthly Budget Sales	Actual Monthly Sales	Variance		PY FY17	CY vs PY Variance	
October	136,219	133,262	(2,957)	↓	133,620	(358)	↓
November	132,132	136,044	3,912	↑	133,235	2,809	↑
December	133,625	138,587	4,962	↑	134,634	3,953	↑
January	128,711	133,882	5,170	↑	131,461	2,421	↑
February	121,668	119,241	(2,426)	↓	117,617	1,624	↑
March	132,587	132,693	106	↑	135,131	(2,438)	↓
April	132,532	130,565	(1,967)	↓	132,587	(2,022)	↓
May	142,956	138,085	(4,871)	↓	143,013	(4,928)	↓
June	141,064	129,728	(11,336)	↓	137,777	(8,049)	↓
July	144,404	128,681	(15,723)	↓	139,227	(10,546)	↓
August	139,093				138,797		
September	133,658				132,993		
Total	**1,618,650**	**1,320,769**	**(25,129)**		**1,610,093**	**(17,534)**	

July 2018 Monthly Financial Highlight (Continued)

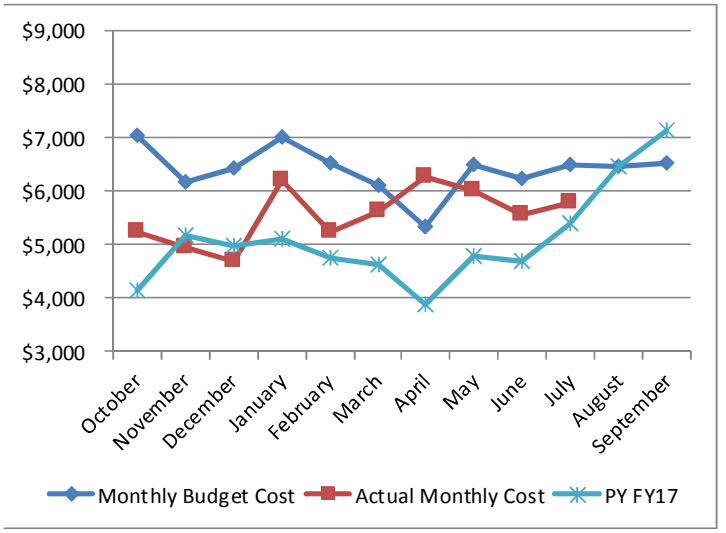
Fuel Revenue/ Cost $000



Through July 31, 2018

$000	Monthly Budget Rev/Cost	Actual Monthly Rev/Cost	Variance		PY FY17	CY vs PY Variance	
October	$ 20,928	$ 15,936	$ (4,992)	↓	$ 11,894	$ 4,042	↑
November	20,300	15,400	$ (4,899)	↓	11,215	$ 4,185	↑
December	20,529	16,007	$ (4,522)	↓	12,036	$ 3,971	↑
January	19,774	16,036	$ (3,738)	↓	11,867	$ 4,169	↑
February	18,692	17,763	$ (930)	↓	12,751	$ 5,012	↑
March	20,370	19,180	$ (1,190)	↓	14,248	$ 4,932	↑
April	20,361	19,441	(920)	↓	13,940	5,500	↑
May	21,963	20,854	(1,109)	↓	15,596	5,258	↑
June	21,672	19,252	(2,420)	↓	14,859	4,393	↑
July	22,185	19,457	(2,728)	↓	15,175	4,282	↑
August	21,369				16,947		
September	20,534				15,895		
Total	**$ 248,677**	**$ 179,326**	**$(27,448)**		**$ 166,425**	**$ 45,744**	

O&M Cost $000



Through July 31, 2018

$000	Monthly Budget Cost	Actual Monthly Cost	Variance		PY FY17	CY vs PY Variance	
October	$ 7,040	5,239	1,801	↑	4,135	(1,103)	↓
November	6,182	4,941	1,240	↑	5,158	217	↑
December	6,428	4,694	1,735	↑	4,966	273	↑
January	7,001	6,204	797	↑	5,092	(1,112)	↓
February	6,522	5,252	1,270	↑	4,748	(504)	↓
March	6,091	5,638	453	↑	4,612	(1,026)	↓
April	5,320	6,269	(949)	↓	3,892	(2,378)	↓
May	6,495	6,005	491	↑	4,772	(1,233)	↓
June	6,221	5,558	662	↑	4,702	(856)	↓
July	6,508	5,797	711	↑	5,385	(412)	↓
August	6,462				6,445		
September	6,526				7,138		
Total	**$ 76,796**	**$ 55,597**	**$ 8,211**		**$ 61,045**	**$ (8,134)**	

July 2018 Monthly Financial Highlight (Continued)

Through July 31, 2018							
	3Q2017	4Q2017	1Q2018	2Q2018	3Q2018	4Q2018	
Residential	43,902	43,991	43,898	44,065	44,074	44,003	
Commercial	5,252	5,226	5,231	5,262	5,278	5,286	
Government	1,071	1,073	1,076	1,086	1,092	1,088	
Streetlights	824	823	908	1,005	1,091	1,143	
Navy	1	1	1	1	1	1	
Total	51,050	51,114	51,114	51,419	51,536	51,521	

Debt service coverage (DSC) calculation-indenture	2013	2014	2015	2016	2017	YTD July 2018
Senior lien coverage	3.36	3.16	3.62	3.28	2.65	2.68
Aggregate debt service coverage	1.88	1.98	2.62	3.28	2.65	2.68
Debt service coverage (DSC) calculation-IPP as O&M						
Senior lien coverage	2.16	2.55	2.56	2.45	1.79	1.80
Aggregate debt service coverage	1.21	1.41	1.85	2.45	1.79	1.80

- Under recovery of LEAC - $8.4 million

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

GUAM POWER AUTHORITY
FINANCIAL STATEMENT OVERVIEW
July 2018

Attached are the financial statements and supporting schedules for the month and fiscal year ended July 31, 2018.

Summary

The increase in net assets for the month ended was $0.8 million as compared to the anticipated net increase of $1.0 million projected at the beginning of the year. The total kWh sales for the month were 10.89% less than projected and non-fuel revenues were $1.3 million less than the estimated amount. O & M expenses for the month were $5.7 million which was $0.7 million less than our projections for the month. Other expenses for the month such as interest expense, IPP costs, (net of interest income and other income) totaled to $3.4 million, which was $0.5 million less than the projected amounts. There were no other significant departures from the budget during the period.

Analysis

Description	Previous Month	Current Month	Target
Quick Ratio	2.34	2.48	2
Days in Receivables	45	39	52
Days in Payables	35	29	30
LEAC (Over)/Under Recovery Balance -YTD	$8,904,873	$8,422,674	$9,142,210
T&D Losses	4.99%	5.03%	<7.00%
Debt Service Coverage	1.80	1.80	1.75
Long-term equity ratio	17%	17%	30 – 40%
Days in Cash	185	172	60

The Quick Ratio has been a challenge for GPA historically. However, over the last two fiscal years, the influx of cash from insurance proceeds continued to improve this ratio. GPA has current obligations of approximately $73 million and approximately $181 million in cash and current receivables. Debt Service Coverage ratio is calculated using the methodology in use before the Fiscal Year 2002 change in accounting practice.

Financial Statements
July 2018

Significant Assumptions

The significant assumptions in the financial statements are as follows:

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

Prepared by:	Reviewed by:	Approved by:
Lenora M. Sanz Controller	John J.E. Kim Chief Financial Officer	John M. Benavente, P.E. General Manager

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statements of Net Position
July 31, 2018 and September 30, 2017

	Unaudited July 2018	Audited September 2017	Change from Sept 30 2017
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
Current assets:			
Cash and cash equivalents:			
Held by trustee for restricted purposes:			
Interest and principal funds	12,824,898	18,061,879	(5,236,981)
Bond indenture funds	50,976,310	56,907,535	(5,931,225)
Held by Guam Power Authority:			
Bond indenture funds	140,713,203	132,579,889	8,133,314
Self insurance fund-restricted	19,257,186	19,251,372	5,814
Energy sense fund	1,279,123	1,074,491	204,632
Total cash and cash equivalents	225,050,720	227,875,166	(2,824,446)
Accounts receivable, net	37,457,520	77,826,132	(40,368,612)
Total current receivables	37,457,520	77,826,132	(40,368,612)
Materials and supplies inventory	12,920,837	11,989,745	931,092
Fuel inventory	55,977,110	52,387,369	3,589,741
Prepaid expenses	2,908,264	629,586	2,278,678
Total current assets	334,314,451	370,707,998	(36,393,547)
Utility plant, at cost:			
Electric plant in service	1,047,252,881	1,038,121,362	9,131,519
Construction work in progress	35,549,932	18,480,173	17,069,759
Total	1,082,802,813	1,056,601,535	26,201,278
Less: Accumulated depreciation	(592,655,919)	(561,829,334)	(30,826,585)
Total utility plant	490,146,894	494,772,201	(4,625,307)
Other non-current assets:			
Investment - bond reserve funds held by trustee	48,530,594	48,576,863	(46,269)
Unamortized debt issuance costs	2,550,782	4,267,305	(1,716,523)
Total other non-current assets	51,081,376	52,844,168	(1,762,792)
Total assets	875,542,721	918,324,367	(42,781,646)
Deferred outflow of resources:			
Deferred fuel revenue	8,422,674	16,751,048	(8,328,374)
Unamortized loss on debt refunding	27,551,968	11,076,064	16,475,904
Pension	8,698,853	8,698,853	0
Unamortized forward delivery contract costs	504,558	637,358	(132,800)
Total deferred outflows of resources	45,178,053	37,163,323	8,014,730
	920,720,774	955,487,690	(34,766,916)

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statement of Net Position, Continued
July 31, 2018 and September 30, 2017

	Unaudited July 2018	Audited September 2017	Change from Sept 30 2017
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION			
Current liabilities:			
Current maturities of long-term debt	1,630,000	1,780,000	(150,000)
Current obligations under capital leases	15,319,211	23,330,193	(8,010,982)
Accounts payable			
Operations	31,895,486	56,723,139	(24,827,653)
Others	3,364,031	7,597,801	(4,233,770)
Accrued payroll and employees' benefits	1,196,816	1,546,860	(350,044)
Current portion of employees' annual leave	2,083,469	2,045,201	38,268
Interest payable	10,014,069	15,065,830	(5,051,761)
Customer deposits	7,273,181	8,209,228	(936,047)
Total current liabilities	72,776,263	116,298,252	(43,521,989)
Regulatory liabilities:			
Provision for self insurance	19,550,977	19,550,977	0
Total regulatory liabilities	19,550,977	19,550,977	0
Long term debt, net of current maturities	605,377,535	590,568,862	14,808,673
Obligations under capital leases, net of current portion	13,290,216	24,428,832	(11,138,616)
Net Pension liability	82,249,297	85,875,217	(3,625,920)
DCRS sick leave liability	4,008,397	4,008,397	0
Employees' annual leave net of current portion	1,086,456	1,086,456	0
Customer advances for construction	385,293	369,180	16,113
Total liabilities	798,724,435	842,186,173	(43,461,738)
Deferred inflows of resources:			
Unearned forward delivery contract revenue	1,849,389	2,336,071	(486,682)
Pension	788,894	788,894	0
Total deferred inflows of resources	2,638,283	3,124,965	(486,682)
Commitments and contigencies			
Net Position:			
Net investment in capital assets	(46,348,458)	(40,220,468)	(6,127,990)
Restricted	29,346,314	15,232,832	14,113,482
Unrestricted	136,360,199	135,164,187	1,196,012
Total net position	119,358,055	110,176,552	9,181,503
	920,720,774	955,487,690	(34,766,916)

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM
Statement of Revenues, Expenses and Changes in Net Assets

	July 31			Ten Months Ended July 31		
	Unaudited 2018	Audited 2017	% of change Inc (dec)	Unaudited 2018	Audited 2017	% of change Inc (dec)
Revenues						
Sales of electricity	32,903,643	29,326,087	12	314,587,560	270,112,810	16
Miscellaneous	308,251	211,937	45	1,808,644	1,847,933	(2)
Total	33,211,894	29,538,024	12	316,396,204	271,960,743	16
Bad debt expense	(86,583)	(103,532)	(16)	(865,833)	(893,930)	(3)
Total revenues	33,125,311	29,434,492	13	315,530,371	271,066,813	16
Operating and maintenance expenses						
Production fuel	19,457,438	15,175,139	28	179,331,515	133,582,176	34
Other production	1,425,830	1,539,270	(7)	14,024,616	12,487,432	12
	20,883,268	16,714,409	25	193,356,131	146,069,608	32
Depreciation	3,479,274	3,526,137	(1)	32,174,360	39,741,207	(19)
Energy conversion cost	1,325,326	1,751,588	(24)	14,759,986	16,375,468	(10)
Transmission & distribution	1,128,694	925,682	22	10,805,873	9,704,842	11
Customer accounting	442,536	459,293	(4)	4,381,963	3,409,093	29
Administrative & general	2,713,341	2,356,791	15	25,518,839	20,967,363	22
Total operating and maintenance expenses	29,972,439	25,733,900	16	280,997,152	236,267,581	19
Operating income	3,152,872	3,700,592	(15)	34,533,219	34,799,232	(1)
Other income (expenses)						
Interest income	317,765	147,271	116	2,363,398	1,209,044	95
Interest expense and amortization	(2,553,542)	(2,796,910)	(9)	(26,582,184)	(28,316,956)	(6)
Bond issuance costs	67,464	76,827	(12)	(1,844,201)	768,270	(340)
Assets written off	0	0		0	0	
Allowance for funds used during construction	128,957	294,990	(56)	1,439,407	3,129,480	(54)
Other expense	(300,336)	(4,291)	0	(830,810)	(535,363)	55
Total other income (expenses)	(2,339,692)	(2,282,113)	3	(25,454,390)	(23,745,525)	7
Income (loss) before capital contributions	813,180	1,418,479	(43)	9,078,829	11,053,707	(18)
Capital contributions	0	4,884	0	102,672	43,306	137
Increase (decrease) in net assets	813,180	1,423,363	(43)	9,181,501	11,097,013	(17)
Total net assets at beginning of period (restated)	118,544,878	71,496,480	66	110,176,557	61,822,830	78
Total net assets at end of period	119,358,058	72,919,843	64	119,358,058	72,919,843	64

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statements of Cash Flows
Period Ended July 31, 2018

	Month Ending 7/31/2018	YTD Ending 7/31/2018
Increase(decrease) in cash and cash equivalents		
Cash flows from operating activities:		
Cash received from customers	($3,304,810)	$ 313,935,339
Cash payments to suppliers and employees for goods and services	30,002,896	299,086,586
Net cash provided by operating activities	$8,536,636	14,848,753
Cash flows from investing activities:		
Interest and dividends on investments and bank accounts	317,765	2,363,398
Net cash provided by investing activities	317,765	2,363,398
Cash flows from non-capital financing activities		
Proceeds from Cabras 3&4 insurance claims	-	41,844,342
Interest paid on short term debt	(8,904)	(67,084)
Provision for self insurance funds	(593)	(5,814)
Net cash provided by noncapital financing activities	(9,497)	41,771,444
Cash flows from capital and related financing activities		
Acquisition of utility plant	(14,322,559)	(27,549,050)
Principal paid on bonds and other long-term debt	-	(3,550,000)
Interest paid on bonds(net of capitalized interest)	128,957	(27,337,879)
Interest paid on capital lease obligations	(211,396)	(2,789,575)
Interest & principal funds held by trustee	(2,484,412)	5,236,981
Reserve funds held by trustee	(34,366)	46,269
Bond funds held by trustee	459,841	5,931,225
Principal payment on capital lease obligations	(1,932,700)	(19,149,597)
Grant from DOI/FEMA	-	102,672
Debt issuance costs/loss on defeasance	(333,577)	18,208,673
Net cash provided by (used in) capital and related financing activities	(18,730,212)	(50,850,281)
Net (decrease) increase in cash and cash equivalents	(9,885,308.45)	8,133,314
Cash and cash equivalents, beginning	150,598,511	132,579,889
Cash and cash equivalents-Funds held by GPA, July 31, 2018	**$ 140,713,203**	**$ 140,713,203**

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statements of Cash Flows, continued
Period Ended July 31, 2018

	Month Ending 7/31/2018	YTD Ending 7/31/2018
Reconciliation of operating earnings to net cash provided by operating activities:		
Operating earnings net of depreciation expense and excluding interest income	$3,152,872	$34,533,219
Adjustments to reconcile operating earnings to net cash provided by operating activities:		
Depreciation and amortization	3,479,274	32,174,360
Other expense	(232,872)	(2,675,011)
(Increase) decrease in assets:		
Accounts receivable	5,407,363	(1,475,730)
Materials and inventory	(109,365)	(931,092)
Fuel inventory	5,850,975	(3,589,741)
Prepaid expenses	959,455	(2,278,678)
Unamortized debt issuance cost	23,667	1,716,523
Deferred fuel revenue	482,199	8,328,374
Unamortized loss on debt refunding	229,166	(16,475,904)
Unamortized forward delivery contract costs	13,280	132,800
Increase (decrease) in liabilities:		
Accounts payable-operations	(9,817,426)	(24,827,653)
Accounts payable-others	312,613	(4,438,402)
Accrued payroll and employees' benefits	350,007	(350,044)
Net pension liability	(316,862)	(3,625,920)
Employees' annual leave	(81,800)	38,268
Customers deposits	(1,117,241)	(936,047)
Customer advances for construction	-	16,113
Unearned forward delivery contract revenue	(48,669)	(486,682)
Net cash provided by operating activities	**$8,536,636**	**$ 14,848,753**

Guam Power Authority
Financial Analysis
7/31/2018

Quick Ratio

A	Reserve Funds Held by GPA	140,713,203
B	Current Accounts Receivable	40,102,688
C	Total Cash and A/R (A+B)	180,815,891
D	Total Current Liabilities	72,776,263
E	**Quick Ratio (F/G)**	**2.48**

Days in Receivables

A	FY 18 Moving 12 Mos.-Actual	375,548,803
B	No. of Days	365
C	Average Revenues per day (A/B)	1,028,901
D	Current Accounts Receivable	40,102,688
E	**Days in Receivables (D/C)**	**39**

Days in Payables

A	FY 18 Moving 12 Months-Actual	446,017,577
B	No. of Days	365
C	Average Payables per day (A/B)	1,221,966
D	Current Accounts Payables	35,259,517
E	**Days in Payables (D/C)**	**29**

Long term equity ratio

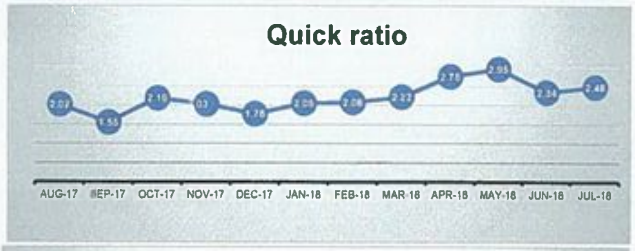
A	Equity	$	119,358,055.05
B	Total Long term Liability	$	584,275,539.95
C	Total Equity and liability	$	703,633,595.00
D	**Long term equity ratio (A/C)**		**17%**

Days cash on hand

A	Unrescticted cash & cash equivalents	140,713
B	No. of Days -YTD	304
C	A x B	42,776,814
D	Total Operating expenses excluding depreci	248,823
E	**Days cash on hand**	**172**

Days' Liquidity

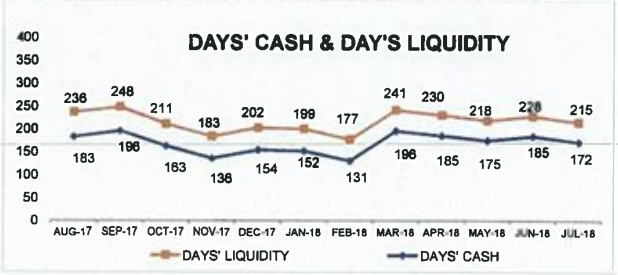
A	Unrescticted cash , cash equivalents & revo	175,713
B	No. of Days -YTD	304
C	A x B	53,416,814
D	Total Operating expenses excluding depreci	248,823
E	**Days liquidity**	**215**











GPA 302
13-Aug-18

GUAM POWER AUTHORITY
ACCRUED REVENUE
JULY 2018

	FOR THE MONTH ENDED JULY		TEN MONTHS ENDED JULY	
	2018	2017	2018	2017
KWH SALES:				
Residential	41,361,122	45,094,364	418,390,923	420,409,867
Small Gen. Non Demand	6,743,157	7,087,373	68,553,439	69,530,168
Small Gen. Demand	15,161,689	15,839,125	155,303,386	158,053,260
Large General	25,339,577	27,119,633	259,070,026	262,103,184
Independent Power Producer	30,088	82,800	419,755	869,484
Private St. Lights	34,288	35,412	334,612	382,552
Sub-total	88,669,920	95,258,706	902,072,142	911,348,514
Government Service:				
Small Non Demand	1,128,046	1,254,979	12,031,467	11,412,652
Small Demand	7,182,975	7,962,644	78,222,446	80,646,847
Large	5,707,305	6,219,351	62,597,150	61,883,821
Street Lighting	903,135	638,971	7,468,888	7,940,475
Sub-total	14,921,461	16,075,944	160,319,952	161,883,795
Total	103,591,381	111,334,651	1,062,392,094	1,073,232,309
U. S. Navy	25,089,942	27,892,205	258,377,165	265,070,860
GRAND TOTAL	128,681,323	139,226,856	1,320,769,259	1,338,303,169
REVENUE:				
Residential	10,379,963	9,056,344	98,516,278	81,951,847
Small Gen. Non Demand	1,975,429	1,709,931	18,922,871	16,354,075
Small Gen. Demand	4,181,623	3,527,191	40,168,823	34,413,087
Large General	6,510,707	5,589,484	62,321,065	52,506,462
Independent Power Producer	9,619	17,270	100,794	179,151
Private St. Lights	26,302	25,099	256,458	256,503
Sub-total	23,083,643	19,925,320	220,286,289	185,661,124
Government Service:				
Small Non Demand	343,795	319,135	3,455,544	2,847,605
Small Demand	2,081,391	1,907,628	21,222,070	18,727,533
Large	1,609,173	1,424,292	16,438,532	13,830,841
Street Lighting	568,447	418,012	4,580,813	4,485,840
Sub-total	4,602,806	4,069,066	45,696,960	39,891,819
Total	27,686,449	23,994,386	265,983,249	225,552,943
U. S. Navy	5,217,194	5,331,702	48,604,311	44,559,869
GRAND TOTAL	32,903,643	29,326,087	314,587,559	270,112,812
NUMBER OF CUSTOMERS:				
Residential	44,003	43,866	44,018	43,712
Small Gen. Non Demand	4,183	4,131	4,155	4,127
Small Gen. Demand	982	984	985	988
Large General	119	116	119	116
Independent Power Peoducer	2	3	3	4
Private St. Lights	531	526	530	525
Sub-total	49,820	49,626	49,809	49,471
Government Service:				
Small Non Demand	690	678	686	682
Small Demand	351	352	351	347
Large	47	45	47	45
Street Lighting	612	297	463	245
Sub-total	1,700	1,372	1,547	1,319
Total	51,520	50,998	51,356	50,790
US Navy	1	1	1	1
	51,521	50,999	51,357	50,791

GPA403
13-Aug-18

GUAM POWER AUTHORITY
ACCRUED REVENUE

	TWELVE MONTHS ENDING	July 2018	June 2018	May 2018	APRIL 2018	MARCH 2018	FEBRUARY 2018	JANUARY 2018	DECEMBER 2017	NOVEMBER 2017	OCTOBER 2017	SEPTEMBER 2017	AUGUST 2017
KWH SALES:													
Residential	504,316,658	41,361,122	42,056,621	44,782,019	41,394,961	41,541,824	36,809,615	42,087,765	43,307,944	43,386,853	41,882,000	41,491,015	44,434,719
Small General Non Demand	82,922,971	6,743,157	6,840,316	7,216,684	6,894,385	6,976,607	6,154,115	6,844,713	6,966,278	7,060,041	7,067,142	7,022,092	7,347,440
Small General Demand	187,301,051	15,161,689	15,360,000	16,316,998	15,390,268	15,917,309	14,184,319	15,562,774	15,848,505	15,789,397	15,792,127	15,509,408	16,488,287
Large General	311,540,074	25,339,577	25,263,128	26,377,222	25,681,619	26,155,199	23,674,407	26,242,185	27,485,887	26,267,861	26,583,141	25,432,034	27,038,013
Private Outdoor Lighting	444,488	34,288	37,088	34,126	27,531	32,791	32,400	32,358	35,129	35,042	33,851	76,532	33,324
Independent Power Producer	512,094	30,088	25,238	28,295	27,405	28,536	28,976	27,011	40,140	93,823	92,244	34,586	57,764
Sub-Total	1,087,037,316	88,669,920	89,582,394	94,753,344	89,216,169	90,652,265	80,884,040	90,776,805	93,673,883	92,632,817	91,250,505	89,565,666	95,399,508
Government Service:													
Small Non Demand	14,521,060	1,128,046	1,157,839	1,224,286	1,180,911	1,193,794	1,119,571	1,248,251	1,272,026	1,255,131	1,251,612	1,246,106	1,243,487
Small Demand	94,454,200	7,182,975	7,404,715	8,098,401	7,720,850	7,889,205	7,377,578	8,102,881	8,063,549	8,098,974	8,283,218	8,084,368	8,147,386
Large	75,811,298	5,707,305	5,896,149	6,822,597	6,142,309	6,226,210	5,905,830	6,315,819	6,812,285	6,550,623	6,418,254	6,493,449	6,520,699
Street Lighting (Agencies)	9,043,021	903,135	795,661	781,901	699,501	743,499	668,689	716,087	697,921	668,464	812,849	697,002	677,130
Sub-Total	193,829,579	14,921,461	15,254,364	16,707,185	15,743,671	16,052,709	15,072,669	16,382,918	16,845,780	16,573,193	16,766,033	16,520,925	16,788,702
Total	1,280,866,895	103,591,381	104,836,757	111,460,529	104,959,840	106,704,974	95,956,709	107,159,724	110,519,633	109,206,010	108,016,537	106,086,591	112,188,210
U.S. Navy	311,892,206	25,089,942	24,891,007	26,624,376	25,605,624	25,988,485	23,304,608	26,722,147	26,067,573	26,837,883	25,248,420	26,808,721	26,608,721
Grand Total	1,592,559,101	128,681,323	129,727,764	138,084,906	130,565,464	132,693,459	119,241,316	133,881,870	136,587,306	136,043,893	133,261,957	132,892,911	138,796,930
REVENUE:													
Residential	$ 117,166,408	$ 10,379,863	$ 10,487,819	$ 11,371,490	$ 10,082,308	$ 10,154,660	$ 9,633,432	$ 8,985,179	$ 9,238,911	$ 9,253,483	$ 8,919,044	$ 8,887,320	$ 8,782,810
Small General Non Demand	$ 22,609,528	$ 1,975,429	$ 1,969,284	$ 2,127,563	$ 1,803,541	$ 1,868,097	$ 1,669,656	$ 1,741,922	$ 1,785,223	$ 1,789,283	$ 1,792,881	$ 1,783,997	$ 1,902,660
Small General Demand	$ 47,825,253	$ 4,181,823	$ 4,150,656	$ 4,513,787	$ 4,108,079	$ 4,206,730	$ 4,006,949	$ 3,714,258	$ 3,769,415	$ 3,899,298	$ 3,758,026	$ 3,692,273	$ 3,964,157
Large General	$ 73,992,663	$ 6,510,707	$ 6,533,909	$ 6,798,955	$ 6,399,879	$ 6,585,683	$ 6,086,586	$ 5,762,313	$ 6,067,740	$ 5,783,617	$ 5,801,375	$ 5,443,089	$ 6,028,539
Private Outdoor Lighting	$ 306,912	$ 26,302	$ 27,542	$ 26,776	$ 22,912	$ 26,785	$ 25,733	$ 25,133	$ 25,553	$ 25,471	$ 25,250	$ 25,361	$ 25,094
Independent Power Producer	$ 132,574	$ 9,619	$ 6,601	$ 7,068	$ 7,057	$ 7,406	$ 7,969	$ 6,029	$ 9,249	$ 20,053	$ 19,744	$ 17,076	$ 14,804
Sub-Total	$ 262,033,439	$ 23,083,643	$ 23,175,823	$ 24,845,648	$ 22,523,776	$ 23,008,362	$ 21,630,428	$ 20,234,834	$ 20,876,091	$ 20,591,366	$ 20,316,320	$ 20,049,087	$ 21,698,063
Government Service:													
Small Non Demand	$ 4,120,948	$ 343,785	$ 354,533	$ 372,707	$ 350,949	$ 356,541	$ 335,128	$ 332,434	$ 341,017	$ 334,963	$ 333,478	$ 333,079	$ 332,325
Small Demand	$ 25,324,816	$ 2,081,391	$ 2,159,463	$ 2,323,025	$ 2,164,585	$ 2,224,973	$ 2,094,220	$ 2,016,922	$ 2,046,340	$ 2,043,720	$ 2,067,433	$ 2,050,292	$ 2,052,253
Large	$ 19,587,057	$ 1,609,173	$ 1,667,786	$ 1,840,797	$ 1,676,200	$ 1,707,269	$ 1,628,297	$ 1,525,771	$ 1,652,805	$ 1,583,988	$ 1,546,446	$ 1,575,080	$ 1,573,445
Street Lighting (Agencies)	$ 5,533,669	$ 568,447	$ 477,183	$ 477,272	$ 452,952	$ 456,729	$ 439,986	$ 427,482	$ 416,851	$ 419,351	$ 445,451	$ 436,808	$ 516,047
Sub-Total	$ 54,566,488	$ 4,602,806	$ 4,658,965	$ 5,013,801	$ 4,644,687	$ 4,744,512	$ 4,497,538	$ 4,302,609	$ 4,457,113	$ 4,382,022	$ 4,392,807	$ 4,395,259	$ 4,474,070
Total	$ 316,599,728	$ 27,686,449	$ 27,834,788	$ 29,859,448	$ 27,168,463	$ 27,752,874	$ 26,128,065	$ 24,537,443	$ 25,333,204	$ 24,973,388	$ 24,709,127	$ 24,444,346	$ 26,172,133
U.S. Navy	$ 58,949,076	$ 5,217,194	$ 4,618,042	$ 5,005,555	$ 5,623,411	$ 5,202,943	$ 4,155,974	$ 5,033,103	$ 4,642,130	$ 4,254,065	$ 4,851,893	$ 5,325,383	$ 5,019,382
Grand Total	$ 375,548,803	$ 32,903,643	$ 32,452,830	$ 34,865,003	$ 32,791,874	$ 32,955,817	$ 30,284,040	$ 28,570,546	$ 29,975,334	$ 29,227,453	$ 29,561,020	$ 29,769,728	$ 31,191,516
NUMBER OF CUSTOMERS:													
Residential	44,911	44,003	44,074	44,086	43,991	44,085	43,985	44,119	43,898	43,896	43,950	43,991	43,969
Small General Non Demand	4,151	4,183	4,173	4,172	4,183	4,154	4,153	4,142	4,129	4,131	4,134	4,127	4,134
Small General Demand	984	982	984	988	988	987	991	981	981	982	982	980	981
Large General	118	118	119	119	119	119	118	119	118	117	119	116	115
Private Outdoor Lighting	529	531	532	533	536	526	527	527	530	527	530	526	527
Independent Power Producer	3	2	2	2	2	2	2	2	3	3	3	3	3
Sub-Total	49,797	49,820	49,884	49,900	49,819	49,853	49,786	49,890	49,659	49,756	49,718	49,743	49,729
Government Service:													
Small Non Demand	684	690	694	691	692	689	684	686	679	678	676	675	678
Small Demand	351	351	351	350	350	350	351	350	350	354	351	353	351
Large	47	47	47	47	47	47	47	47	47	47	46	45	45
Street Lighting (Agencies)	436	612	559	526	513	479	421	389	378	378	377	297	287
Sub-Total	1,517	1,700	1,651	1,614	1,602	1,565	1,503	1,472	1,454	1,457	1,450	1,370	1,371
Total	51,314	51,520	51,535	51,514	51,421	51,418	51,289	51,362	51,113	51,213	51,168	51,113	51,100
U.S. Navy	1	1	1	1	1	1	1	1	1	1	1	1	1
Grand Total	51,315	51,521	51,536	51,515	51,422	51,419	51,290	51,363	51,114	51,214	51,169	51,114	51,101

GPA303

GUAM POWER AUTHORITY
ACCRUED REVENUE
JULY 2017

RATE	NUMBER OF CUSTOMERS	KWH SALES	TOTAL REVENUE AMOUNT	TOTAL REVENUE C/KWH	BASE RATE REVENUE C/KWH	BASE RATE REVENUE AMOUNT	AVERAGE PER CUSTOMER KWH	AVERAGE PER CUSTOMER REVENUE	NON-FUEL C/KWH (0.154242)	NON-FUEL AMOUNT	0.154242 FUEL C/KWH	0.154242 FUEL AMOUNT
Month												
R Residential	44,003	41,361,122	10,379,963	25.10	25.10	10,379,963	940	236	9.6717	4,000,341	15.4242	6,379,622
G Small Gen. Non Demand	4,183	6,743,157	1,975,429	29.30	29.30	1,975,429	1,612	472	13.8711	935,351	15.4242	1,040,078
J Small Gen. Demand	982	15,161,689	4,181,623	27.58	27.58	4,181,623	15,440	4,258	12.1615	1,843,889	15.4187	2,337,734
P Large General	119	25,339,577	6,510,707	25.69	25.69	6,510,707	212,938	54,712	10.3339	2,618,565	15.3599	3,892,141
I Independent Power Produce	2	30,088	9,619	31.97	31.97	9,619	15,044	4,809	17.1053	5,147	14.8639	4,472
H Private St. Lights	531	34,288	26,302	76.71	76.71	26,302	65	50	61.2850	21,013	15.4242	5,289
Sub-Total	49,820	88,669,920	23,083,643	26.03	26.03	23,083,643	1,780	463	10.6090	9,424,306	15.4242	13,659,337
Government Service:												
S Small Non Demand	690	1,128,046	343,795	30.48	30.48	343,795	1,635	498	15.0529	169,803	15.4242	173,992
K Small Demand	351	7,182,975	2,081,391	28.98	28.98	2,081,391	20,464	5,930	13.5525	973,474	15.4242	1,107,916
L Large	47	5,707,305	1,609,173	28.19	28.19	1,609,173	121,432	34,238	12.9702	740,250	15.2247	868,923
F Street Lighting (Agencies)	612	903,135	568,447	62.94	62.94	568,447	1,476	929	47.5173	429,146	15.4242	139,301
Sub-Total	1,700	14,921,461	4,602,806	30.85	30.85	4,602,806	8,777	2,708	15.4227	2,312,674	15.4242	2,290,132
	51,520	103,591,381	27,686,449	26.73	26.73	27,686,449	2,011	537	11.3024	11,736,980	15.4242	15,949,469
U.S. Navy	1	25,089,942	5,217,194	20.79	20.79	5,217,194			6.8124	1,709,225	13.9816	3,507,969
TOTAL	51,521	128,681,323	32,903,643	25.57	25.57	32,903,643	2,498	639	10.4492	13,446,204	15.1206	19,457,438
Ten Months Ended July 2018												
R Residential	44,018	418,390,923	98,516,278	23.55	23.55	98,516,278	9,505	2,238	9.6195	40,246,967	13.9270	58,269,310
G Small Gen. Non Demand	4,155	68,553,439	18,922,871	27.60	27.60	18,922,871	16,497	4,554	13.6725	9,372,976	13.9306	9,549,895
J Small Gen. Demand	985	155,303,388	40,168,823	25.86	25.86	40,168,823	157,732	40,797	11.9735	18,595,284	13.8912	21,573,539
P Large General	119	259,070,026	62,321,065	24.06	24.06	62,321,065	2,184,402	525,473	10.3647	26,851,829	13.6910	35,469,236
I Independent Power Produce	3	419,755	100,794	24.01	24.01	100,794	144,743	34,757	11.3770	47,756	12.6356	53,039
H Private St. Lights	530	334,612	256,458	76.64	76.64	256,458	631	484	62.9012	210,475	13.7422	45,983
Sub-Total	49,809	902,072,142	220,286,289	24.42	24.42	220,286,289	18,111	4,423	10.5674	95,325,287	13.8527	124,961,002
Government Service:												
S Small Non Demand	684	12,031,467	3,455,544	28.72	28.72	3,455,544	17,581	5,050	15.0250	1,807,725	13.6959	1,647,819
K Small Demand	351	78,222,446	21,222,070	27.13	27.13	21,222,070	222,856	60,462	13.4310	10,506,055	13.6994	10,716,015
L Large	47	62,597,150	16,438,532	26.26	26.26	16,438,532	1,343,767	352,884	12.7286	7,967,732	13.5322	8,470,800
F Street Lighting (Agencies)	436	7,468,888	4,580,813	61.33	61.33	4,580,813	17,150	10,519	47.5210	3,549,287	13.8110	1,031,526
Sub-Total	1,517	160,319,952	45,696,960	28.50	28.50	45,696,960	105,653	30,115	14.8645	23,830,800	13.6391	21,866,160
	51,327	1,062,392,094	265,983,249	25.04	25.04	265,983,249	20,699	5,182	11.2158	119,156,087	13.8204	146,827,162
U.S. Navy	1	258,377,165	48,604,311	18.81	18.81	48,604,311			6.2312	16,099,964	12.5802	32,504,347
TOTAL	51,328	1,320,769,259	314,587,559	23.82	23.82	314,587,559	25,732	6,129	10.2407	135,256,051	13.5778	179,331,508
Twelve Months Ended July 2018												
R Residential	44,011	504,316,658	117,166,408	23.23	23.23	117,166,408	11,459	2,662	9.6181	48,505,818	13.6146	68,660,590
G Small Gen. Non Demand	4,151	82,922,971	22,609,528	27.27	27.27	22,609,528	19,975	5,446	13.6555	11,323,561	13.6102	11,285,967
J Small Gen. Demand	984	187,301,051	47,825,253	25.53	25.53	47,825,253	190,363	48,607	11.9614	22,403,851	13.5725	25,421,402
P Large General	118	311,540,074	73,992,663	23.75	23.75	73,992,663	2,638,307	626,614	10.3827	32,346,228	13.3679	41,646,435
I Independent Power Produce	3	512,094	132,674	25.91	25.91	132,674	176,584	45,750	12.5651	64,345	13.3431	68,329
H Private St. Lights	529	444,468	306,912	69.05	69.05	306,912	840	580	56.9074	252,935	12.1443	53,977
Sub-Total	49,797	1,087,037,316	262,033,439	24.11	24.11	262,033,439	21,829	5,262	10.5697	114,896,738	13.5356	147,136,701
Government Service:												
S Small Non Demand	684	14,521,060	4,120,948	28.38	28.38	4,120,948	21,219	6,022	15.0131	2,180,059	13.3660	1,940,888
K Small Demand	351	94,454,200	25,324,616	26.81	26.81	25,324,616	269,100	72,150	13.4434	12,697,831	13.3682	12,626,785
L Large	47	75,611,298	19,587,057	25.90	25.90	19,587,057	1,623,141	420,473	12.7001	9,602,730	13.2048	9,984,326
F Street Lighting (Agencies)	436	9,043,021	5,533,669	61.19	61.19	5,533,669	20,765	12,706	47.7367	4,316,839	13.4560	1,216,830
Sub-Total	1,517	193,629,579	54,566,288	28.18	28.18	54,566,288	127,605	35,960	14.8724	28,797,459	13.3083	25,768,829
	51,314	1,280,666,895	316,599,728	24.72	24.72	316,599,728	24,957	41,222	11.2203	143,694,197	13.5012	172,905,530
U.S. Navy	1	311,892,206	58,949,076	18.90	18.90	58,949,076			6.3100	19,680,492	12.5904	39,268,583
TOTAL	51,315	1,592,559,101	375,548,803	23.58	23.58	375,548,803	31,035	7,318	10.2586	163,374,689	13.3228	212,174,114

Doc. No. 34GL-18-2268.*

CCU Regular Meeting Aug 28, 2018 - GPA

GPA-318

318Jul18

ENERGY ACCOUNT

FY 2018 Versus FY 2017

FOR INTERNAL USE ONLY

Gross Generation	July 2018		July 2017		Y T D 2018		Y T D 2017		MOVING TWELVE MONTHS	
Number of days in Period	31		31		304		273		365	
Peak demand	242		252		254		257		261	
Date	07/02/18		07/31/17		10/30/17		06/13/17		08/01/17	
	KWH	% change	KWH	% change	KWH	% change	KWH	% change	KWH	% change
Energy Account:										
Kilowatt hours GPA:										
Cabras 1 & 2	44,590,000		40,003,000		544,441,000		624,349,000		615,085,000	
Cabras No. 3	0		0		0		0		0	
Cabras No. 4	0		0		0		0		0	
MEC (ENRON) Piti 8 (IPP)	27,134,300		24,376,400		267,891,400		261,987,200		325,537,900	
MEC (ENRON) Piti 9 (IPP)	24,960,900		29,047,100		273,050,200		251,300,300		329,812,200	
TEMES Piti 7 (IPP)	6,556,185		8,613,974		23,175,648		25,716,301		44,440,715	
Tanguisson 2	0		0		0		0		0	
Tanguisson 1	0		0		0		0		0	
Diesels/CT's & Others:							0			
MDI 10MW	16,756		0		971,636		2,244,937		984,326	
NRG Solar Dandan	3,216,552		3,514,247		39,687,744		35,410,781		47,467,765	
Dededo CT #1	585,620		1,125,760		7,223,220		1,780,740		12,565,780	
Dededo CT #2	1,016,520		1,264,600		7,067,930		2,886,382		10,014,140	
Macheche CT	4,305,002		7,016,044		45,356,134		39,488,332		61,435,358	
Yigo CT (Leased)	5,806,500		6,165,242		39,009,900		29,908,466		50,477,381	
Tenjo	3,015,110		4,404,660		38,375,730		34,166,030		49,667,180	
Talofofo 10 MW	493,350		2,473,110		13,297,320		13,963,250		18,105,460	
Aggreko	18,222,263		22,288,912		146,721,699		143,656,067		176,512,171	
Wind Turbine*	3,836		25,042		311,968		370,772		328,390	
Orote	0		0		0		0		0	
Marbo	0		0		0		0		0	
	139,922,894		**150,318,091**		**1,446,581,528**		**1,467,228,558**		**1,742,433,766**	
Ratio to last year		93.08		99.71		98.59		**102.49**		**99.20**
Station use	4,743,461		4,731,976		52,110,922		56,413,456		61,592,462	
Ratio to Gross generation		3.39		3.15		3.60		3.84		**3.53**
Net send out	135,179,434		145,586,114		1,394,470,606		1,410,815,102		1,680,841,304	
Ratio to last year		92.85		100.01		98.84		**102.46**		**99.47**
KWH deliveries:										
Sales to Navy (@34.5kv)	**25,089,942**		**27,892,205**		**258,377,165**		**265,070,862**		**311,892,206**	
Ratio to last year		89.95		104.23		97.47		**100.00**		**98.06**
GPA-metered	**110,089,492**		**117,693,909**		**1,136,093,441**		**1,145,744,240**		**1,368,949,098**	
Ratio to last year		93.54		99.06		99.16		**103.05**		**99.79**
Power factor adj.	0		0		0		0		0	
Adjusted	110,089,492		117,693,909		1,136,093,441		1,145,744,240		1,368,949,098	
GPA KWH Accountability:										
Sales to civilian customers-accrual basis	**103,591,381**		**111,334,651**		**1,062,392,093**		**1,073,232,311**		**1,280,666,894**	
Ratio to last year		93.05		98.03		98.99		**102.79**		**99.63**
GPA use-KWH	356,321		274,614		3,265,724		2,616,925		3,793,037	
Unaccounted For	6,141,790		6,084,644		70,435,624		69,895,005		84,489,167	
Ratio to deliveries		5.58		5.17		6.20		6.10		6.17
Ratio to Gross Generation		4.39		4.05		4.87		4.76		4.85
Ratio to Net Send Out		4.54		4.18		5.05		4.95		5.03

Doc. No. 34GL-18-2268.*

CCU Regular Meeting Aug 28, 2018 - GPA

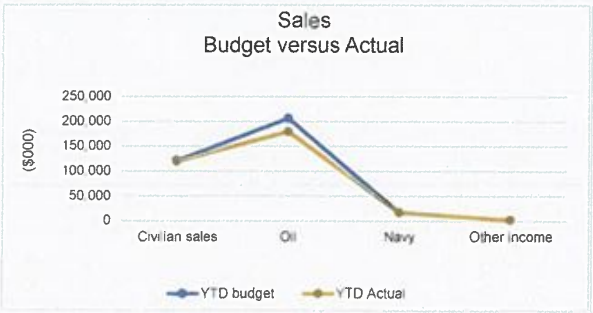
GPA-317Jul18

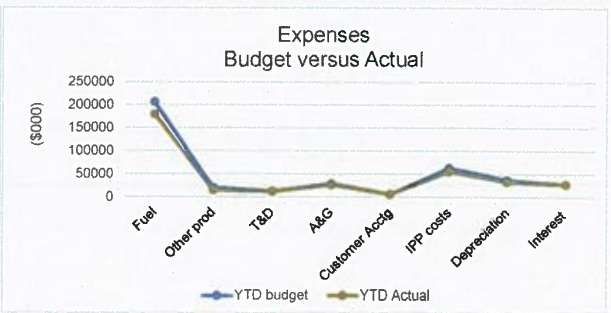
Guam Power Authority
Fuel Consumption
FY 2018

Description	July 2018 BARRELS	July 2018 AMOUNT	YEAR-TO-DATE BARRELS	YEAR-TO-DATE AMOUNT	MOVING 12 MONTHS BARREL S	MOVING 12 MONTHS AMOUNT
FUEL FURNISHED:						
NAVY:						
Diesel	0	0	0	0	0	0
Low Sulfur	0	0	0	0	0	0
	0	**0**	**0**	**0**	**0**	**0**
GPA:						
RFO	114,304	$7,759,879	1,402,759	$ 88,417,395	1,552,667	$ 96,903,472
Diesel	81,611	$7,928,405	643,206	$ 56,440,797	861,572	$ 72,028,469
Low Sulfur	34,092	$2,133,165	229,822	$ 13,930,230	350,030	$ 21,338,345
Deferred Fuel Costs	0	$482,199	0	$ 8,328,374	0	$ 5,627,830
Fuel Adjustments	0	$16,218		$ (747,541)	0	$ (886,136)
Fuel Handling Costs	0	$1,137,573	0	$ 12,962,259	0	$ 17,162,138
	230,007	**$19,457,438**	**2,275,786**	**$ 179,331,513**	**2,764,269**	**$ 212,174,118**
IWPS:						
GPA RFO	114,304	$7,759,879	1,402,759	$ 88,417,395	1,552,667	$ 96,903,472
Diesel	81,611	$7,928,405	643,206	$ 56,440,797	861,572	$ 72,028,469
Low Sulfur	34,092	$2,133,165	229,822	$ 13,930,230	350,030	$ 21,338,345
Deferred Fuel Costs	0	$482,199	0	$ 8,328,374	0	$ 5,627,830
Fuel Variance	0	$16,218	0	$ (747,541)		$ (886,136)
Fuel Handling Costs	0	$1,137,573	0	$ 12,962,259	0	$ 17,162,138
	230,007	**$19,457,438**	**2,275,786**	**$ 179,331,513**	**2,764,269**	**$ 212,174,118**
AVERAGE COST/Bbl.						
GPA RFO		**$67.89**		**$63.03**		**$62.41**
Diesel		**$97.15**		**$87.75**		**$83.60**
Low Sulfur		**$62.57**		**$60.61**		**$60.96**
AS BURNED						
Cabras 1 & 2						
RFO	57,137	$ 3,922,829	769,696	$ 48,467,660	830,883	$ 51,931,380
Low Sulfur	21,008	$ 1,314,498	136,003	$ 8,247,588	193,810	$ 11,800,102
Diesel	306	$ 27,310	1,987	$ 160,806	3,011	$ 225,261
	78,451	$ 5,264,637	907,685	$ 56,876,054	1,027,704	$ 63,956,743
Cabras 3 & 4						
RFO	0	$ -	0	$ -	0	$ -
Low Sulfur	0	$ -	0	$ -	0	$ -
Diesel	0	$ -	0	$ -	0	$ -
	0	$ -	0	$ -	0	$ -
MEC (Piti Units 8&9)						
RFO	57,167	$ 3,837,050	633,063	$ 39,949,734	721,784	$ 44,972,092
Low Sulfur	13,084	$ 818,667	93,819	$ 5,682,642	156,220	$ 9,538,243
Diesel	0	$ -	38	$ 2,127	38	$ 2,127
	70,251	$ 4,655,717	726,919	$ 45,634,503	878,041	$ 54,512,462
Diesel & CT's - GPA:						
MDI Dsl	27	$ 2,004	1,561	$ 108,767	1,582	$ 110,103
Macheche CT	8,828	$ 868,510	97,356	$ 8,420,350	131,831	$ 10,898,860
Yigo CT	11,737	$ 1,141,991	81,938	$ 7,248,407	105,248	$ 8,920,152
Talofofo 10 MW	857	$ 84,897	22,451	$ 1,982,147	30,831	$ 2,575,932
Aggreko	33,525	$ 3,253,595	270,119	$ 23,605,057	324,638	$ 27,422,789
Tenjo	5,409	$ 553,433	65,831	$ 5,977,637	85,548	$ 7,433,348
TEMES (IPP)	15,613	$ 1,454,850	58,845	$ 5,052,649	110,935	$ 8,757,772
GWA Generators	429	$ 50,385	758	$ 89,092	1,099	$ 129,238
	81,305	$ 7,901,095	641,182	$ 56,277,864	858,524	$ 71,801,081
Deferred Fuel Costs	0	$ 482,199		$ 8,328,374		$ 5,627,830
Adjustment		$ 16,218		$ (747,541)		$ (886,136)
Fuel Handling Costs	0	$ 1,137,573		$ 12,962,259		$ 17,162,138
TOTAL	**230,007**	**$ 19,457,438**	**2,275,786**	**$ 179,331,513**	**2,764,269**	**$ 212,174,118**

Statement of operations
Comparison-Budget versus Actual
For the month and year to date ended July 31, 2018

	Budget	Actual July-18	Variance	YTD Budget	YTD Actual	Variance
KwH Sales-Civilian	117,800	103,591	14,209	1,082,364	1,062,392	19,972
Non-fuel yield	$ 0.105655	$ 0.113301	$ (0.007647)	$ 0.111747	$ 0.112159	$ (0.000412)
KwH Sales-Navy	26,604	25,090	1,514	263,534	258,377	5,157
Non-fuel yield	$ 0.061774	$ 0.068115	$ (0.006341)	$ 0.061774	$ 0.062308	$ (0.000534)
Operating revenue						
Civilian sales	$ 13,115	$ 11,737	$ 1,378	$ 120,951	$ 119,157	$ 1,794
Oil	22,185	19,457	2,728	206,773	179,331	27,442
Navy	1,643	1,709	(66)	16,280	16,099	181
Other income	169	308	(139)	1,692	1,809	(117)
	37,113	33,211	3,902	345,695	316,396	29,300
Bad debts expense	87	87	0	866	866	0
Total operating revenues	$ 37,027	$ 33,125	$ 3,902	$ 344,829	$ 315,530	$ 29,299
Operating expenses:						
Production fuel	$ 22,185	$ 19,457	$ 2,728	$ 206,773	$ 179,332	$ 27,442
O & M expenses:						
Other production	1,899	1,426	474	19,434	14,025	5,409
Transmission distribution	1,216	1,129	87	11,459	10,806	653
Administrative expense	2,875	2,713	162	27,977	25,519	2,459
Customer accounting	431	443	(12)	4,072	4,382	(310)
	6,421	5,710	711	62,942	54,731	8,211
IPP costs	1,383	1,325	58	14,588	14,760	(172)
Depreciation	3,635	3,479	156	36,349	32,174	4,175
	$ 33,625	$ 29,972	$ 3,652	$ 320,653	$ 280,997	$ 39,656
Operating income	$ 3,402	$ 3,152	$ 250	$ 24,176	$ 34,533	$ (10,357)
Other revenue (expenses):						
Investment income	99	318	(219)	987	2,363	(1,377)
Interest expense	(2,654)	(2,554)	(100)	(26,549)	(26,582)	34
AFUDC	61	129	(68)	608	1,439	(831)
Bond issuance costs/Other expenses	135	(233)	367	1,346	(2,675)	4,021
Net income before capital contribution	1,042	813	229	568	9,078	(8,511)
Grants from the U.S. Government	-	-	-	-	103	(103)
Increase (decrease) in net assets	$ 1,042	$ 813	$ 229	$ 568	$ 9,181	$ (8,614)





Guam Power Authority
Debt service coverage
July 31, 2018

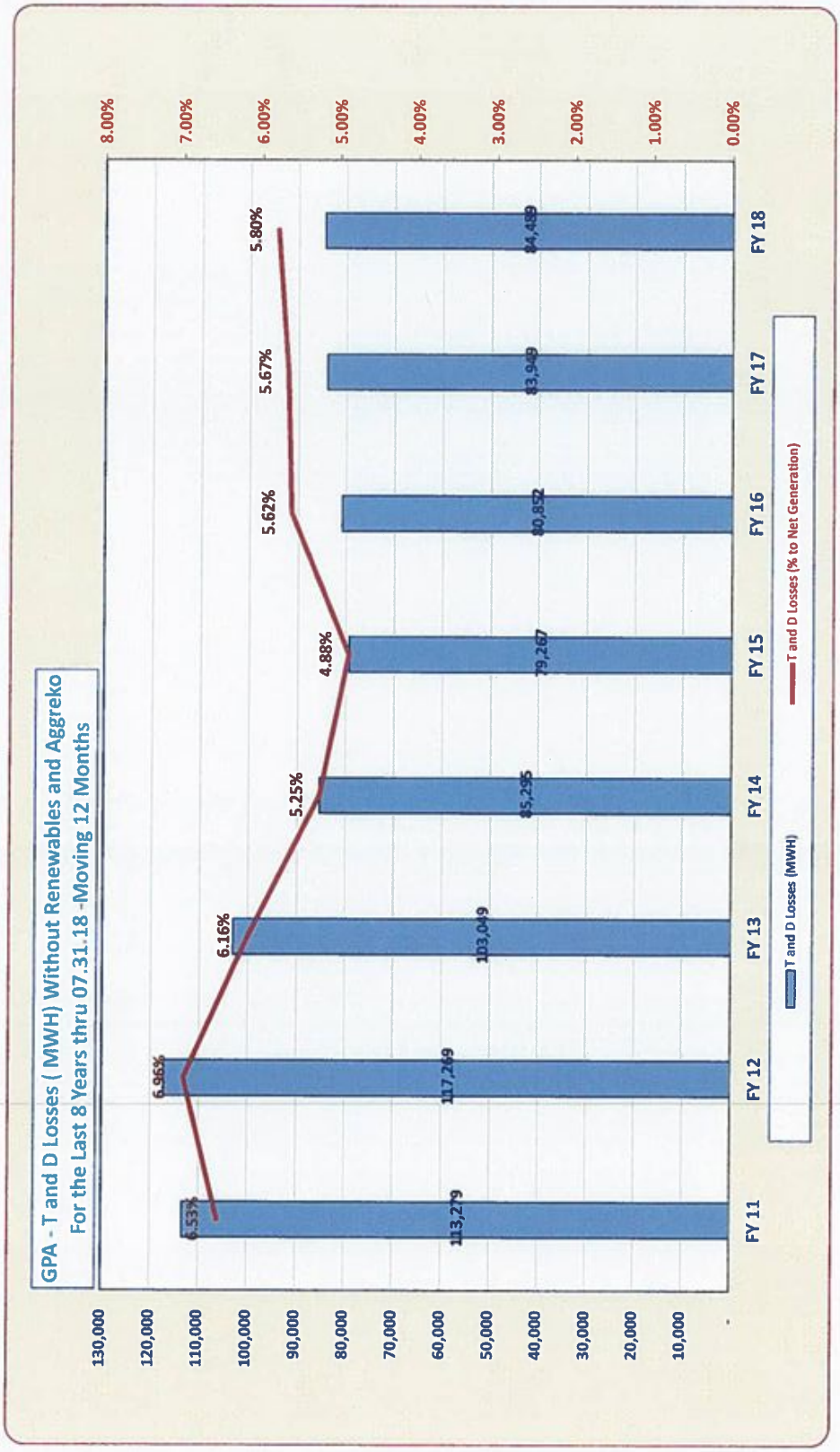
	2014	2015	Restated 2016	2017	YTD 2018
Funds Available for Debt Service					
Earnings from Operations	$ 40,895	$ 48,758	$ 37,981	$ 36,522	$ 34,533
Interest Income	333	368	1,227	(32)	598
Depreciation Expense	36,989	41,766	44,240	44,292	32,174
Balance Available for Debt Service	$ 78,217	$ 90,892	$ 83,448	$ 80,782	$ 67,305
IPP - Capital Costs					
Principal	$ 13,064	$ 18,144	$ 14,819	$ 21,263	$ 19,445
Interest	10,020	8,478	5,970	5,137	2,634
Total IPP Payments	$ 23,084	$ 26,622	$ 20,789	$ 26,400	$ 22,079
Bond Debt Service					
Principal (1993 & 1999 Revenue Bond)	$ -	$ -	$ -	$ -	$ -
Interest (1993 & 1999 Revenue Bond)	-	-	-	-	-
Principal and Interest (2010 Subordinate Bond)	15,193	9,605	-	-	-
Principal and Interest (2010 Senior TE Bond)	7,999	7,999	7,999	7,999	2,000
Principal and Interest (2012 Senior TE Bond)	17,455	17,096	17,098	17,449	14,238
Principal and Interest (2014 Senior TE Bond)		-	10	5,084	4,236
Principal and Interest (2017 Senior TE Bond)					4,642
Total	$ 40,647	$ 34,700	$ 25,107	$ 30,532	$ 25,117
Debt Service Coverage (DSC) Calculation					
Existing DSC Methodology (Senior)	2.17 x	2.56 x	2.50 x	1.78 x	1.80 x
Existing DSC Methodology (Senior+Subordinate)	1.36 x	1.85 x	2.50 x	1.78 x	1.80 x
Bond Covenant DSC	1.92 x	2.62 x	3.32 x	2.65 x	2.68 x
Debt Service Coverage Requirements					
Existing Ratemaking DSC Target	1.75 x	1.75 x	1.75 x	1.75 x	1.75 x
Minimum Bond Covenant Requirement (Senior Bond)	1.30 x	1.30 x	1.30 x	1.30 x	1.30 x
Minimum Bond Covenant Requirement (Subordinate Bond	1.20 x	1.20 x	1.20 x	1.20 x	1.20 x

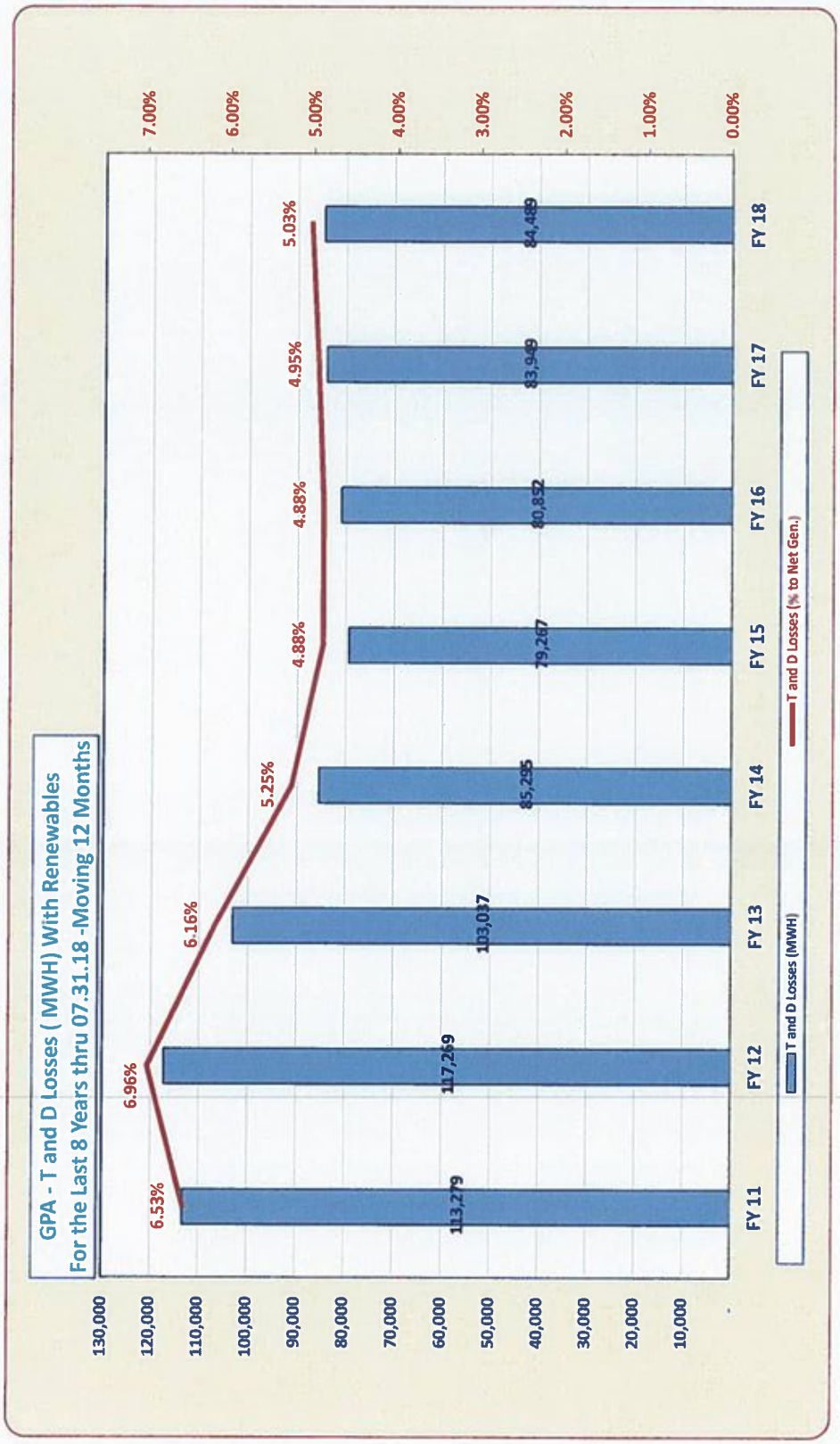
Notes:
(1) Source: Guam Power Authority, 2014 - 2017 Audited Financial Statements
(2) Interest income is net of interest earnings in the Construction Fund and the amortization of deferred credit.
(3) Existing DSC Methodology (Rating Agency Method):
(Operating Earnings + Depreciation Expense - IPP Principal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

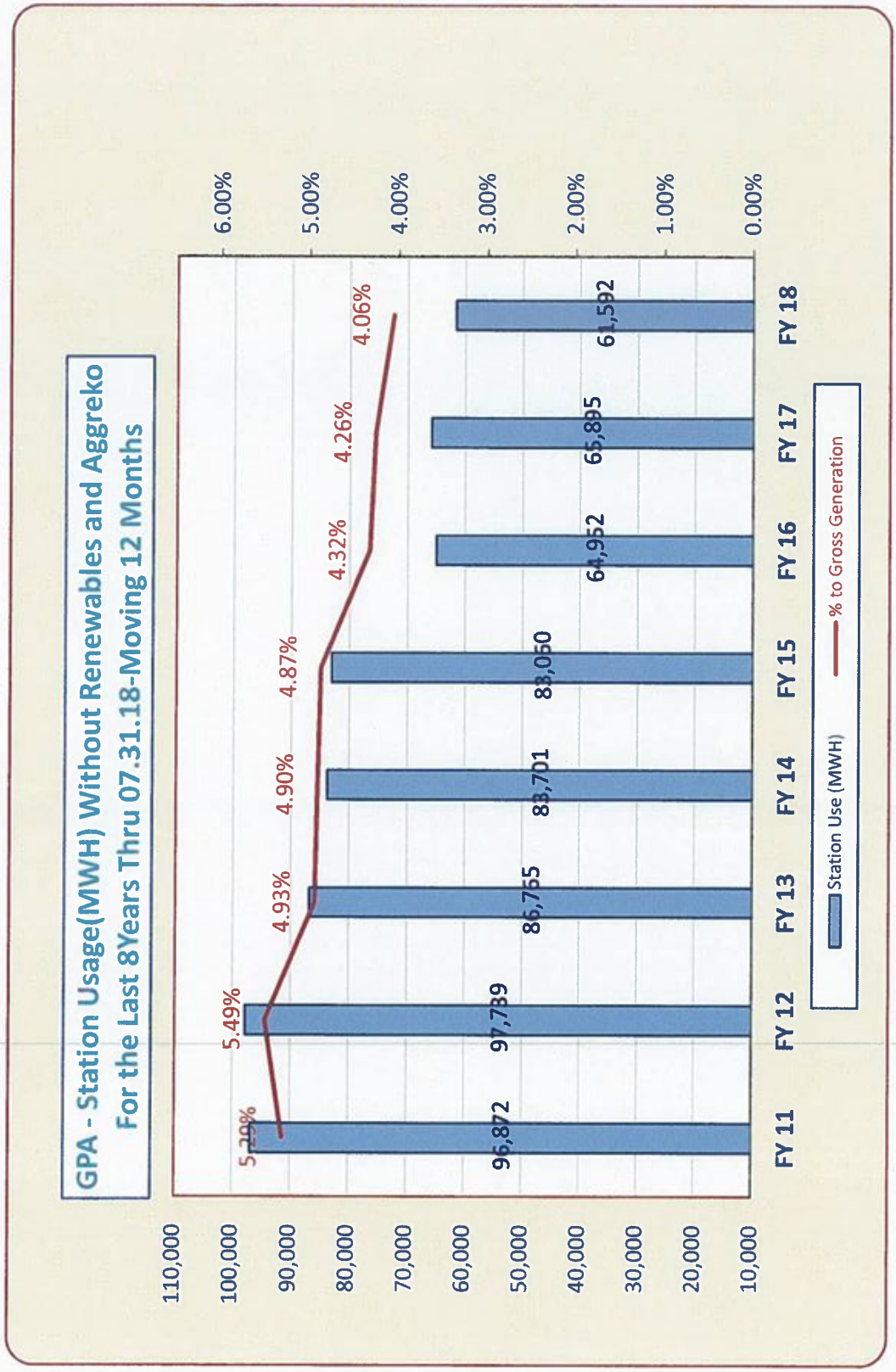
REVENUES-ACTUAL VS PROJECTIONS

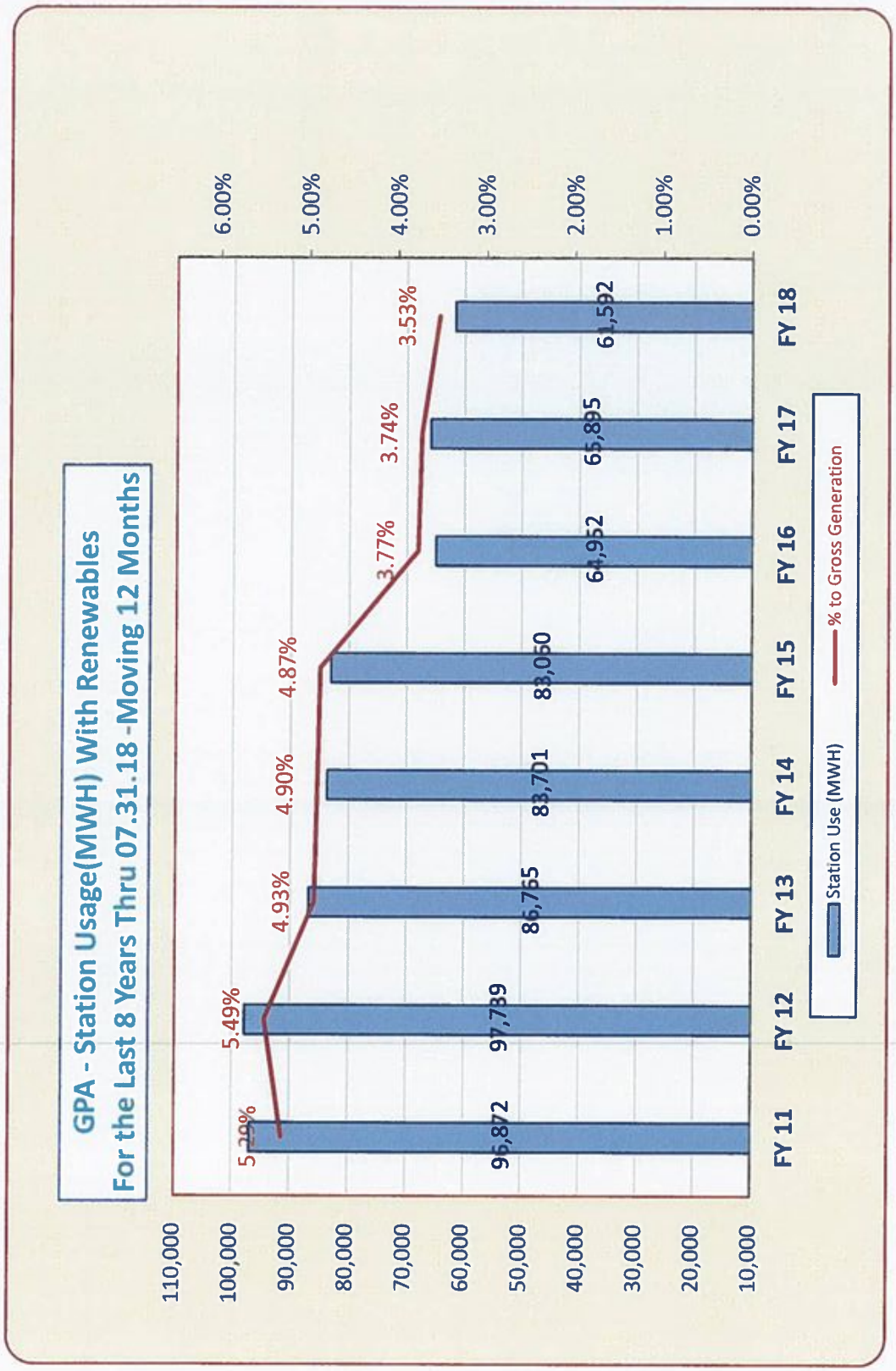
	MONTHLY - JULY 2018				YTD THRU 07/31/2018			
	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE
KWH								
Residential	47,629,041	41,361,122	(6,267,919)	-13.16%	423,877,930	418,390,923	(5,487,008)	-1.29%
Small General-Non-Demand	7,912,022	6,743,157	(1,168,865)	-14.77%	72,105,558	68,553,439	(3,552,119)	-4.93%
Small General-Demand	17,481,265	15,161,689	(2,319,576)	-13.27%	158,702,555	155,303,386	(3,399,169)	-2.14%
Large	27,916,519	25,339,577	(2,576,942)	-9.23%	265,615,260	259,070,026	(6,545,234)	-2.46%
Independent Power Producers	34,921	30,088	(4,833)	-13.84%	332,257	419,755	87,499	26.33%
Private St. Lites	58,751	34,288	(24,463)	-41.64%	556,474	334,612	(221,862)	-39.87%
Sub-total	**101,032,518**	**88,669,920**	**(12,362,597)**	**-12.24%**	**921,190,034**	**902,072,142**	**(19,117,891)**	**-2.08%**
Government								
Small_Non Demand	1,234,935	1,128,046	(106,889)	-8.66%	11,239,678	12,031,467	791,789	7.04%
Small-Demand	8,472,670	7,182,975	(1,289,696)	-15.22%	80,859,708	78,222,446	(2,637,262)	-3.26%
Large	6,252,382	5,707,305	(545,078)	-8.72%	60,895,341	62,597,150	1,701,810	2.79%
Public St. Lites	807,579	903,135	95,556	11.83%	8,179,936	7,468,888	(711,048)	-8.69%
Sub-total	**16,767,567**	**14,921,461**	**(1,846,106)**	**-11.01%**	**161,174,664**	**160,319,952**	**(854,712)**	**-0.53%**
Total-Civilian	**117,800,085**	**103,591,381**	**(14,208,704)**	**-12.06%**	**1,082,364,697**	**1,062,392,094**	**(19,972,603)**	**-1.85%**
USN	26,603,917	25,089,942	(1,513,974)	-5.69%	263,533,988	258,377,165	(5,156,823)	-1.96%
Grand Total	**144,404,001**	**128,681,323**	**(15,722,678)**	**-10.89%**	**1,345,898,685**	**1,320,769,259**	**(25,129,426)**	**-1.87%**
					-	-		
Non-Oil Yield								
Residential	0.099203	0.099717	0.000514	0.53%	0.099203	0.099195	(0.000009)	-0.01%
Small General-Non-Demand	0.138364	0.138711	0.002347	1.72%	0.138364	0.138725	0.000361	0.26%
Small General-Demand	0.119423	0.121615	0.002192	1.84%	0.119423	0.119735	0.000312	0.26%
Large	0.103705	0.103339	(0.000366)	-0.35%	0.103705	0.103647	(0.000058)	-0.06%
Independent Power Producers	0.117983	0.171053	0.053070	0.00%	0.117983	0.113770	(0.004213)	0.00%
Private St. Lites	0.454278	0.612850	0.158572	34.91%	0.454278	0.629012	0.174734	38.46%
Sub-total	**0.105655**	**0.106285**	**0.000631**	**0.60%**	**0.105734**	**0.105674**	**(0.000061)**	**-0.06%**
Government					-			
Small_Non Demand	0.152255	0.150529	(0.001726)	-1.13%	0.152255	0.150250	(0.002005)	-1.32%
Small-Demand	0.135082	0.135525	0.000443	0.33%	0.135082	0.134310	(0.000772)	-0.57%
Large	0.128102	0.129702	0.001600	1.25%	0.128102	0.127286	(0.000816)	-0.64%
Public St. Lites	0.380746	0.475173	0.094427	24.80%	0.380746	0.475210	0.094463	24.81%
Sub-total	**0.145576**	**0.154990**	**0.009414**	**6.47%**	**0.146110**	**0.148645**	**0.002535**	**1.74%**
Total-Civilian	**0.111337**	**0.113301**	**0.001964**	**1.76%**	**0.111747**	**0.112158**	**0.000412**	**0.37%**
USN	0.061774	0.068124	0.006350	10.28%	0.061774	0.062312	0.000538	0.87%
Grand Total	**0.102206**	**0.104492**	**0.002286**	**2.24%**	**0.101962**	**0.102407**	**0.000445**	**0.44%**
Non-Oil Revenues								
Residential	4,582,075	4,000,341	(581,734)	-12.70%	40,778,494	40,246,967	(531,526)	-1.30%
Small General-Non-Demand	1,078,917	935,351	(143,566)	-13.31%	9,832,620	9,372,976	(459,644)	-4.67%
Small General-Demand	2,087,668	1,843,889	(243,779)	-11.68%	18,952,758	18,595,284	(357,473)	-1.89%
Large	2,895,072	2,618,565	(276,507)	-9.55%	27,545,534	26,851,829	(693,705)	-2.52%
Independent Power Producers	4,120	5,147	1,027	24.92%	39,201	47,756	8,555	21.82%
Private St. Lites	26,689	21,013	(5,676)	-21.27%	252,794	210,475	(42,319)	-16.74%
Sub-total	**10,674,541**	**9,424,306**	**(1,250,235)**	**-11.71%**	**97,401,399**	**95,325,287**	**(2,076,112)**	**-2.13%**
Government								
Small_Non Demand	188,024	169,803	(18,221)	-9.69%	1,711,292	1,807,725	96,434	5.64%
Small-Demand	1,144,504	973,474	(171,029)	-14.94%	10,922,675	10,506,055	(416,619)	-3.81%
Large	800,943	740,250	(60,693)	-7.58%	7,800,817	7,967,732	166,914	2.14%
Public St. Lites	307,483	429,146	121,663	39.57%	3,114,480	3,549,287	434,807	13.96%
Sub-total	**2,440,954**	**2,312,674**	**(128,280)**	**-5.26%**	**23,549,264**	**23,830,800**	**281,536**	**1.20%**
Total-Civilian	**13,115,495**	**11,736,980**	**(1,378,515)**	**-10.51%**	**120,950,663**	**119,156,087**	**(1,794,576)**	**-1.48%**
USN	1,643,429	1,709,225	65,796	4.00%	16,279,538	16,099,964	(179,574)	-1.10%
Grand Total	**14,758,924**	**13,446,204**	**(1,312,720)**	**-8.89%**	**137,230,201**	**135,256,051**	**(1,974,150)**	**-1.44%**
% of Total Revenues	39.95%	40.87%			39.89%	42.99%		
Oil Revenues								
Residential	7,317,357	6,379,622	(937,735)	-12.82%	65,121,326	58,269,310	(6,852,016)	-10.52%
Small General-Non-Demand	1,215,542	1,040,078	(175,464)	-14.44%	11,077,740	9,549,895	(1,527,845)	-13.79%
Small General-Demand	2,685,686	2,337,734	(347,952)	-12.96%	24,381,833	21,573,539	(2,808,295)	-11.52%
Large	4,288,878	3,892,141	(396,737)	-9.25%	40,807,074	35,469,236	(5,337,838)	-13.08%
Independent Power Producers	5,365	4,472	(893)	-16.64%	51,045	53,039	1,993	3.90%
Private St. Lites	9,026	5,289	(3,737)	-41.41%	85,492	45,983	(39,509)	-46.21%
Sub-total	**15,521,855**	**13,659,337**	**(1,862,518)**	**-12.00%**	**141,524,511**	**124,961,002**	**(16,563,510)**	**-11.70%**
Government								
Small_Non Demand	189,726	173,992	(15,734)	-8.29%	1,726,777	1,647,819	(78,959)	-4.57%
Small-Demand	1,301,676	1,107,916	(193,759)	-14.89%	12,422,660	10,716,015	(1,706,645)	-13.74%
Large	960,568	868,923	(91,645)	-9.54%	9,355,489	8,470,800	(884,689)	-9.46%
Public St. Lites	124,070	139,301	15,231	12.28%	1,256,702	1,031,526	(225,176)	-17.92%
Sub-total	**2,576,039**	**2,290,132**	**(285,907)**	**-11.10%**	**24,761,629**	**21,866,160**	**(2,895,469)**	**-11.69%**
Total-Civilian	**18,097,894**	**15,949,469**	**(2,148,425)**	**-11.87%**	**166,286,140**	**146,827,162**	**(19,458,978)**	**-11.70%**
USN	4,087,220	3,507,969	(579,251)	-14.17%	40,487,324	32,504,347	(7,982,977)	-19.72%
Grand Total	**22,185,114**	**19,457,438**	**(2,727,675)**	**-12.30%**	**206,773,464**	**179,331,508**	**(27,441,955)**	**-13.27%**
% of Total Revenues	60.05%	59.13%			60.11%	57.01%		
Grand Total								
Residential	11,899,433	10,379,963	(1,519,470)	-12.77%	105,899,820	98,516,278	(7,383,543)	-6.97%
Small General-Non-Demand	2,294,459	1,975,429	(319,030)	-13.90%	20,910,360	18,922,871	(1,987,489)	-9.50%
Small General-Demand	4,773,354	4,181,623	(591,731)	-12.40%	43,334,591	40,168,823	(3,165,768)	-7.31%
Large	7,183,950	6,510,707	(673,244)	-9.37%	68,352,608	62,321,065	(6,031,543)	-8.82%
Independent Power Producers	9,485	9,619	134	1.41%	90,246	100,794	10,548	11.69%
Private St. Lites	35,715	26,302	(9,413)	-26.36%	338,286	256,458	(81,828)	-24.19%
Sub-total	**26,196,396**	**23,083,643**	**(3,112,753)**	**-11.88%**	**238,925,911**	**220,286,289**	**(18,639,622)**	**-7.80%**
Government					-			
Small_Non Demand	377,750	343,795	(33,955)	-8.99%	3,438,069	3,455,544	17,475	0.51%
Small-Demand	2,448,179	2,081,391	(364,788)	-14.91%	23,345,335	21,222,070	(2,123,264)	-9.10%
Large	1,761,511	1,609,173	(152,338)	-8.65%	17,156,308	16,438,532	(717,775)	-4.18%
Public St. Lites	431,553	568,447	136,894	31.72%	4,371,182	4,580,813	209,631	4.80%
Sub-total	**5,018,993**	**4,602,806**	**(414,187)**	**-8.26%**	**48,310,892**	**45,696,960**	**(2,613,933)**	**-5.41%**
Total-Civilian	**31,213,389**	**27,686,449**	**(3,526,940)**	**-11.30%**	**287,236,803**	**265,983,249**	**(21,253,555)**	**-7.40%**
USN	5,730,649	5,217,194	(513,455)	-8.96%	56,766,862	48,604,311	(8,162,551)	-14.38%
Grand Total	**36,944,038**	**32,903,643**	**(4,040,395)**	**-10.94%**	**344,003,665**	**314,587,559**	**(29,416,106)**	**-8.55%**
	-	-	-					

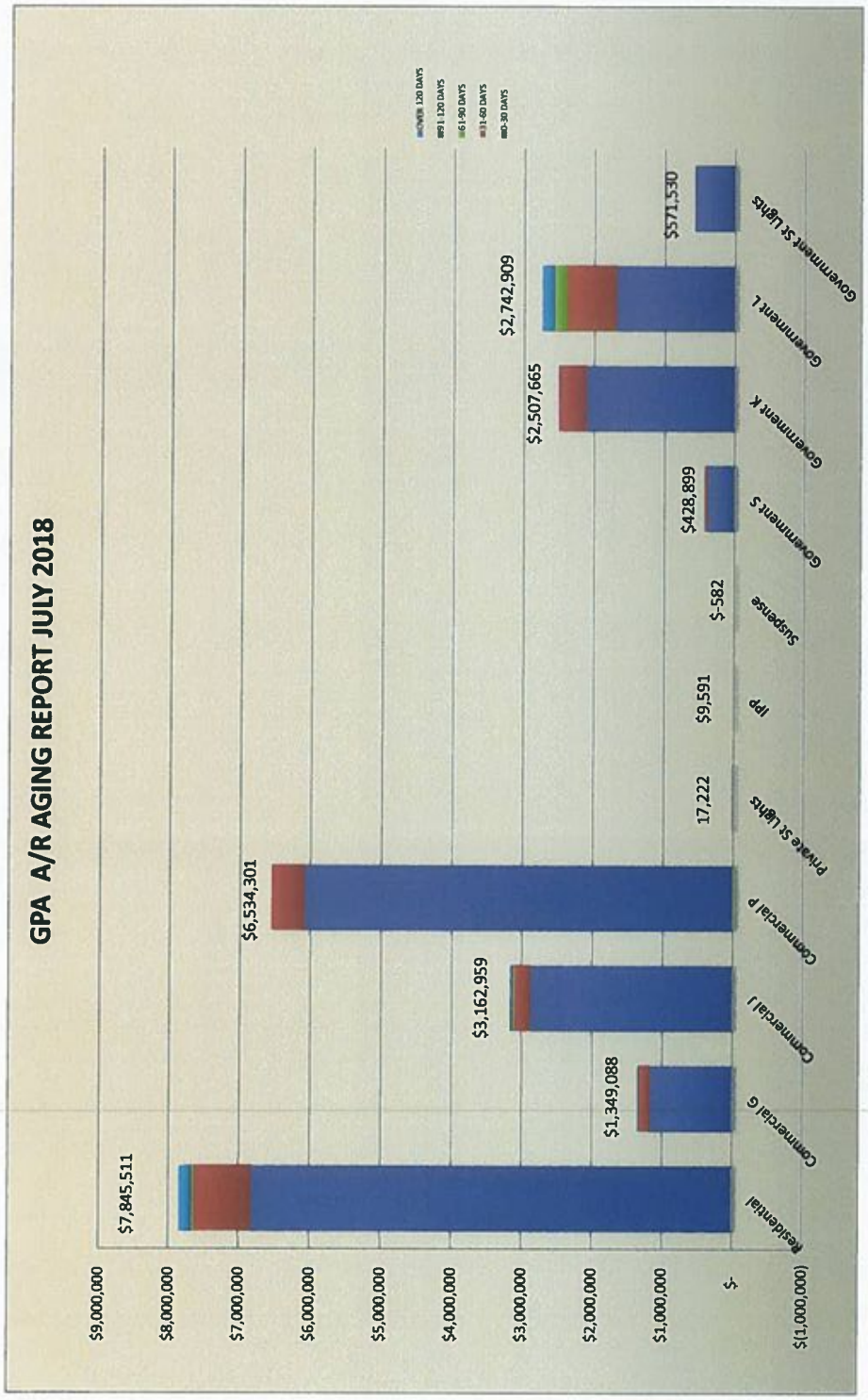
	YTD REVENUES - CURRENT YEAR VS PRIOR YEAR				MTD REVENUES - CURRENT YEAR VS PRIOR YEAR			
	ACTUALS - 10 MONTHS ENDED JULY 31				ACTUALS - MONTH ENDED JULY 31			
	2018	2017	VARIANCE	% VARIANCE	2018	2017	VARIANCE	% VARIANCE
KWH								
Residential	418,390,923	420,409,867	(2,018,943)	-0.48%	41,361,122	45,094,364	(3,733,242)	-8.28%
Small General-Non-Demand	68,553,439	69,530,169	(976,730)	-1.40%	6,743,157	7,087,373	(344,216)	-4.86%
Small General-Demand	155,303,386	158,053,260	(2,749,874)	-1.74%	15,161,689	15,839,125	(677,436)	-4.28%
Large	259,070,026	262,103,183	(3,033,157)	-1.16%	25,339,577	27,119,633	(1,780,057)	-6.56%
Independent Power Producers	419,755	869,484	(449,729)	-51.72%	30,088	82,800	(52,712)	-63.66%
Private St. Lites	334,812	382,552	(47,940)	-12.53%	34,288	35,412	(1,124)	-3.17%
Sub-total	**902,072,142**	**911,348,514**	**(9,276,372)**	**-1.02%**	**88,669,920**	**95,258,706**	**(6,588,786)**	**-6.92%**
Government								
Small_Non Demand	12,031,467	11,412,653	618,814	5.42%	1,128,048	1,254,979	(126,933)	-10.11%
Small-Demand	78,222,446	80,646,847	(2,424,401)	-3.01%	7,182,975	7,962,644	(779,669)	-9.79%
Large	62,597,150	61,883,821	713,330	1.15%	5,707,305	6,219,351	(512,046)	-8.23%
Public St. Lites	7,468,888	7,940,474	(471,586)	-5.94%	903,135	638,971	264,164	41.34%
Sub-total	**160,319,952**	**161,883,796**	**(1,563,843)**	**-0.97%**	**14,921,461**	**16,075,944**	**(1,154,484)**	**-7.18%**
Total-Civilian	**1,062,392,094**	**1,073,232,310**	**(10,840,216)**	**-1.01%**	**103,591,381**	**111,334,651**	**(7,743,270)**	**-6.95%**
USN	258,377,165	265,070,861	(6,693,696)	-2.53%	25,089,942	27,892,205	(2,802,263)	-10.05%
Grand Total	**1,320,769,259**	**1,338,303,170**	**(17,533,911)**	**-1.31%**	**128,681,323**	**139,226,856**	**(10,545,533)**	**-7.57%**
Non-Oil Yield								
Residential	0.096195	0.096267	-0.000072	-0.08%	0.096717	0.095780	0.000937	0.98%
Small General-Non-Demand	0.138725	0.138583	0.000142	0.10%	0.138711	0.136213	0.002498	1.83%
Small General-Demand	0.119735	0.119358	0.000377	0.32%	0.121615	0.117671	0.003944	3.35%
Large	0.103647	0.102709	0.000938	0.91%	0.103339	0.101565	0.001774	1.75%
Independent Power Producers	0.000000	0.109790	-0.109790	-100.00%	0.171053	0.106916	0.064138	59.99%
Private St. Lites	0.629012	0.574047	0.054965	9.58%	0.612850	0.603716	0.009134	1.51%
Sub-total	**0.105674**	**0.105414**	**0.000260**	**0.25%**	**0.106285**	**0.104274**	**0.002012**	**1.93%**
Government								
Small_Non Demand	0.150250	0.151767	-0.001517	-1.00%	0.150529	0.149244	0.001285	0.86%
Small-Demand	0.134310	0.134684	-0.000374	-0.28%	0.135525	0.134521	0.001004	0.75%
Large	0.127286	0.126211	0.001075	0.85%	0.129702	0.125276	0.004426	3.53%
Public St. Lites	0.475210	0.467844	0.007366	1.57%	0.475173	0.549144	-0.073971	-13.47%
Sub-total	**0.148645**	**0.148991**	**-0.000346**	**-0.23%**	**0.154990**	**0.148574**	**0.006416**	**4.32%**
Total-Civilian	**0.112158**	**0.111987**	**0.000171**	**0.15%**	**0.113301**	**0.110670**	**0.002630**	**2.38%**
USN	0.062312	0.061655	0.000657	1.07%	0.068124	0.059154	0.008970	15.16%
Grand Total	**0.102407**	**0.102018**	**0.000389**	**0.38%**	**0.104492**	**0.100350**	**0.004143**	**4.13%**
Non-Oil Revenues								
Residential	40,246,967	40,471,654	(224,686)	-0.56%	4,000,341	4,319,136	(318,796)	-7.38%
Small General-Non-Demand	9,372,976	9,496,649	(123,673)	-1.30%	935,351	965,396	(30,045)	-3.11%
Small General-Demand	18,595,284	18,864,922	(269,638)	-1.43%	1,843,889	1,863,810	(19,921)	-1.07%
Large	26,851,829	26,920,413	(68,583)	-0.25%	2,618,565	2,754,395	(135,830)	-4.93%
Independent Power Producers	47,756	95,460	(47,705)	-49.97%	5,147	8,853	(3,706)	-41.86%
Private St. Lites	210,475	219,603	(9,128)	-4.16%	21,013	21,378	(365)	-1.71%
Sub-total	**95,325,287**	**96,068,700**	**(743,413)**	**-0.77%**	**9,424,306**	**9,932,968**	**(508,662)**	**-5.12%**
Government								
Small_Non Demand	1,807,725	1,732,062	75,664	4.37%	169,803	187,298	(17,495)	-9.34%
Small-Demand	10,506,055	10,861,828	(355,773)	-3.28%	973,474	1,071,144	(97,670)	-9.12%
Large	7,967,732	7,810,415	157,316	2.01%	740,250	779,135	(38,884)	-4.99%
Public St. Lites	3,549,287	3,714,903	(165,615)	-4.46%	429,146	350,887	78,258	22.30%
Sub-total	**23,830,800**	**24,119,207**	**(288,408)**	**-1.20%**	**2,312,674**	**2,388,464**	**(75,791)**	**-3.17%**
Total-Civilian	**119,156,087**	**120,187,908**	**(1,031,821)**	**-0.86%**	**11,736,980**	**12,321,432**	**(584,453)**	**-4.74%**
USN	16,099,964	16,342,860	(242,895)	-1.49%	1,709,225	1,649,939	59,286	3.59%
Grand Total	**135,256,051**	**136,530,767**	**(1,274,716)**	**-0.93%**	**13,446,204**	**13,971,371**	**(525,166)**	**-3.76%**
% of Total Revenues								
Oil Revenues								
Residential	58,269,310	41,480,194	16,789,117	40.48%	6,379,622	4,737,208	1,642,414	34.67%
Small General-Non-Demand	9,549,895	6,857,426	2,692,470	39.26%	1,040,078	744,536	295,542	39.69%
Small General-Demand	21,573,539	15,548,165	6,025,374	38.75%	2,337,734	1,663,381	674,353	40.54%
Large	35,469,238	25,586,050	9,883,187	38.63%	3,892,141	2,835,089	1,057,052	37.28%
Independent Power Producers	53,039	83,691	(30,652)	-36.63%	4,472	8,417	(3,945)	-46.87%
Private St. Lites	45,983	36,900	9,083	24.62%	5,289	3,720	1,569	42.17%
Sub-total	**124,961,002**	**89,592,424**	**35,368,578**	**39.48%**	**13,659,337**	**9,992,351**	**3,666,985**	**36.70%**
Government								
Small_Non Demand	1,647,819	1,115,543	532,276	47.71%	173,992	131,837	42,155	31.98%
Small-Demand	10,716,015	7,865,706	2,850,310	36.24%	1,107,916	836,484	271,433	32.45%
Large	8,470,800	6,020,425	2,450,375	40.70%	868,923	645,157	223,766	34.68%
Public St. Lites	1,031,526	770,937	260,588	33.80%	139,301	67,125	72,177	107.53%
Sub-total	**21,866,160**	**15,772,611**	**6,093,549**	**38.63%**	**2,290,132**	**1,680,602**	**609,531**	**36.27%**
Total-Civilian	**146,827,162**	**105,365,035**	**41,462,126**	**39.35%**	**15,949,469**	**11,672,953**	**4,276,516**	**36.64%**
USN	32,504,347	28,217,009	4,287,337	15.19%	3,507,969	3,681,763	(173,794)	-4.72%
Grand Total	**179,331,508**	**133,582,045**	**45,749,464**	**34.25%**	**19,457,438**	**15,354,716**	**4,102,722**	**26.72%**
% of Total Revenues								
Grand Total								
Residential	98,516,278	81,951,847	16,564,430	20.21%	10,379,963	9,056,344	1,323,619	14.62%
Small General-Non-Demand	18,922,871	16,354,075	2,568,796	15.71%	1,975,429	1,709,931	265,497	15.53%
Small General-Demand	40,168,823	34,413,087	5,755,736	16.73%	4,181,623	3,527,191	654,432	18.55%
Large	62,321,065	52,506,462	9,814,603	18.69%	6,510,707	5,589,484	921,222	16.48%
Independent Power Producers	100,794	179,151	(78,357)	-43.74%	9,619	17,270	(7,651)	-44.30%
Private St. Lites	256,458	256,503	(45)	-0.02%	26,302	25,099	1,203	4.79%
Sub-total	**220,286,289**	**185,661,124**	**34,625,165**	**18.65%**	**23,083,643**	**19,925,320**	**3,158,323**	**15.85%**
Government								
Small_Non Demand	3,455,544	2,847,605	607,939	21.35%	343,795	319,135	24,660	7.73%
Small-Demand	21,222,070	18,727,533	2,494,537	13.32%	2,081,391	1,907,628	173,763	9.11%
Large	16,438,532	13,830,841	2,607,691	18.85%	1,609,173	1,424,292	184,881	12.98%
Public St. Lites	4,580,813	4,485,840	94,973	2.12%	568,447	418,012	150,435	35.99%
Sub-total	**45,696,960**	**39,891,819**	**5,805,141**	**14.55%**	**4,602,806**	**4,069,066**	**533,740**	**13.12%**
Total-Civilian	**265,983,249**	**225,552,943**	**40,430,306**	**17.92%**	**27,686,449**	**23,994,386**	**3,692,063**	**15.39%**
USN	48,604,311	44,559,869	4,044,442	9.08%	5,217,194	5,331,702	(114,508)	-2.15%
Grand Total	**314,587,559**	**270,112,812**	**44,474,748**	**16.47%**	**32,903,643**	**29,326,087**	**3,577,556**	**12.20%**


GPA - T and D Losses (MWH) Without Renewables and Aggreko
For the Last 8 Years thru 07.31.18 -Moving 12 Months
T and D Losses (MWH)
T and D Losses (% to Net Generation)
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
113,279
117,269
103,049
85,295
79,267
80,852
83,949
84,489
6.53%
6.96%
6.16%
5.25%
4.88%
5.62%
5.67%
5.80%
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%


GPA - T and D Losses (MWH) With Renewables
For the Last 8 Years thru 07.31.18 -Moving 12 Months
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
113,279
117,269
103,017
85,295
79,267
80,852
83,949
84,489
6.53%
6.96%
6.16%
5.25%
4.88%
4.88%
4.95%
5.03%
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
T and D Losses (MWH)
T and D Losses (% to Net Gen.)


GPA - Station Usage(MWH) Without Renewables and Aggreko
For the Last 8Years Thru 07.31.18-Moving 12 Months
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
96,872
97,739
86,765
83,701
83,050
64,952
65,895
61,592
5.29%
5.49%
4.93%
4.90%
4.87%
4.32%
4.26%
4.06%
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
Station Use (MWH)
% to Gross Generation


GPA - Station Usage(MWH) With Renewables
For the Last 8 Years Thru 07.31.18 -Moving 12 Months
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
96,872
97,739
86,765
83,701
83,050
64,952
65,895
61,592
5.29%
5.49%
4.93%
4.90%
4.87%
3.77%
3.74%
3.53%
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
Station Use (MWH)
% to Gross Generation


GPA A/R AGING REPORT JULY 2018
$9,000,000
$8,000,000
$7,000,000
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$-
($1,000,000)
OVER 120 DAYS
91-120 DAYS
61-90 DAYS
31-60 DAYS
0-30 DAYS
$7,845,511
$6,534,301
$3,162,959
$1,349,088
17,222
$9,591
$-582
$428,899
$2,507,665
$2,742,909
$571,530
Residential
Commercial G
Commercial J
Commercial P
Private St Lights
IPP
Suspense
Government S
Government K
Government L
Government St Lights

GUAM POWER AUTHORITY
GOVERNMENT ACCOUNTS RECEIVABLE
BILLING UP TO 07/31/2018 and Payment Applied as of 08/22/2018

Current (07/18 Billing due 08/31/18
30 days Arrears (06/18 due 07/15/18)
60 days and over Arrears (05/18 billing due 06/15/18)

CC&B ACCT NUMBER	DEPARTMENT	BALANCE 6/30/2018	CANCEL/REBILL/ SPEC CHARGE 7/31/2018	BILLING 7/31/2018	PAYMENT 8/22/2018	BALANCE 8/22/2018	
	Line Agencies						
0237100000	Dept. of Corrections	81,163.13	-	85,217.89	(166,381.02)	-	
0437100000	Dept. of Parks & Rec.	36,893.05	-	26,652.10	(63,545.15)	-	
0537100000	Guam Fire Department	17,369.62	-	17,553.75	(34,923.37)	-	
6995000000	DOA Supply Mgmt	1,224.12	-	1,584.32	(2,808.44)	-	
7895000000	Dept. of Administration	3,746.35	-	4,327.30	(8,073.65)	-	
1337100000	Nieves Flores Library	10,366.73	-	10,349.00	(20,715.73)	-	
2206200000	General Services Agency	267.48	-	262.38	(529.86)	-	
2237100000	DOA-Data Processing	8,659.23	-	9,002.37	(17,661.60)	-	
2337100000	Dept. of PH&SS	72,522.35	1,091.92	72,482.02	(145,004.37)	1,091.92	
3237100000	Dept. of Education	893,951.41	13,458.97	892,753.80	-	1,800,164.18	1
3337100000	Guam Police Department	42,386.17	-	52,708.77	(95,094.94)	-	
3569100000	Dept of Youth Affairs (Federal)	971.68	-	1,002.20	(1,973.88)	-	
4437100000	Dept. of Youth Affair* (Local)	11,310.87	-	12,297.28	(23,608.15)	-	
4737100000	Guam Environmental Protect	6,689.68	-	6,666.56	(13,356.24)	-	
5437100000	Mental Health/Subst.	46,016.37	-	46,301.70	(92,318.07)	-	
7200300000	Veteran Affairs	1,004.22	-	968.97	(1,973.19)	-	
7437100000	Civil Defense (Military Affairs)	10,896.78	-	11,746.18	(22,642.96)	-	
7463300000	Pacific Energy Resource Center	744.46	-	698.81	(1,443.27)	-	
8137100000	Dept. of Agriculture	9,768.47	-	10,032.65	(9,768.47)	10,032.65	
8337100000	DPW-FAC Adm Account	26,199.75	-	27,167.62	(53,367.37)	-	
8437100000	Guam Visitors Bureau	4,324.34	-	4,689.93	(9,014.27)	-	
8446300000	Yona Senior Citizen Center	986.93	-	937.51	(1,924.44)	-	
9437100000	Dept of Chamorro Affairs/Chamorro Village	4,221.99	-	4,980.22	(9,202.21)	-	
5247210000	Mayors Council	2,204.47	-	2,114.02	(4,318.49)	-	
6293410000	Office of the Governor	23,482.55	-	24,573.36	(48,055.91)	-	
8555858369	Dept of Chamorro Affairs (Guam Museum)	21,891.77	-	24,356.43	(46,248.20)	-	
	Sub Total	**1,339,263.97**	**14,550.89**	**1,351,427.14**	**(893,953.25)**	**1,811,288.75**	
	MAYORS						
0637100000	Santa Rita Mayor	3,734.90	-	3,960.64	(7,695.54)	-	
0737100000	Ordot/Chalan Pago Mayor	1,669.23	-	1,256.08	(2,925.31)	-	
1537100000	Hagatna Mayor	1,462.68	-	1,523.61	(2,986.29)	-	
1637100000	Piti Mayor	1,397.17	-	1,754.24	(3,151.41)	-	
1737100000	Mongmong/Toto/Maite Mayor	1,177.04	-	1,220.51	(2,397.55)	-	
2637100000	Asan/Maina/Adelup Mayor	1,011.62	-	941.98	(1,953.60)	-	
2737100000	Sinajana Mayor	5,111.83	-	4,992.05	(10,103.88)	-	
3637100000	Dededo Mayor	6,691.56	-	6,785.70	(13,477.26)	-	
4637100000	Yigo Mayor	3,579.19	-	3,411.93	(6,991.12)	-	
5637100000	Umatac Mayor	1,197.26	-	1,295.24	(2,492.50)	-	
6537100000	Agana Hts. Mayor	7,998.20	-	5,768.65	(13,766.85)	-	
6637100000	Merizo Mayor	1,194.05	-	993.30	(2,187.35)	-	
6737100000	Barrigada Mayors Office	2,065.05	-	2,099.67	(4,164.72)	-	
7537100000	Agat Mayor	5,712.65	-	2,684.40	(8,431.05)	(34.00)	
7637100000	Inarajan Mayor	2,030.85	-	1,997.34	(4,028.19)	-	
8537100000	Tamuning Mayor	5,792.57	-	5,978.79	(11,771.36)	-	
8637100000	Talofofo Mayor	2,356.97	-	2,640.32	(4,997.29)	-	
9537100000	Mangilao Mayor	4,677.92	-	4,593.49	(9,271.41)	-	
9637100000	Yona Mayor	832.41	-	796.00	(1,628.41)	-	
	Sub Total	**59,693.15**	**-**	**54,693.94**	**(114,421.09)**	**(34.00)**	
	DPW ACCOUNTS				-		
4337100000	DPW-Village St. Lights	394,202.65	97,247.23	366,195.01	(857,644.89)	-	
5337100000	DPW- Primary St. Lights	92,447.82	8,029.69	86,294.98	(186,772.49)	-	
6337100000	DPW-Sec/Coll St. Lights	26,467.31	-	25,948.00	(52,415.31)	-	
7337100000	DPW-Signal Lights	10,160.06	-	11,009.24	(21,169.30)	-	
	Sub Total	**523,277.84**	**105,276.92**	**489,447.23**	**(1,118,001.99)**	**-**	
	(B) AUTONOMOUS/PUBLIC CORP						
1437100000	Retirement Fund	5,099.93	-	5,987.69	(11,087.62)	-	
1915500000	Guam Housing Corp Rental Division	2,103.60	89.08	1,512.83	(1,553.75)	2,151.76	1
2437100000	University of Guam	184,158.69	(170.62)	187,765.12	(371,753.19)	-	
4237100000	Guam Airport Authority	519,079.36	-	528,352.49	(519,079.36)	528,352.49	
5357510000	University of Guam (NET METERED)	76,371.49	-	80,750.45	(157,121.94)	-	
6237100000	G H U R A	14,036.45		27,216.97	(53,234.07)	(11,980.65)	
6437100000	Guam Community College	48,020.75	-	47,560.24	(95,580.99)	-	
7237100000	Guam Memorial Hospital	530,120.84	815.16	35,567.08	(566,553.08)	(50.00)	
8426836906	Guam Memorial Hospital (NET METERED)	-	-	171,078.51	(171,078.51)	-	
9137100000	Port Authority of Guam	93,329.98	-	100,386.79	(193,716.77)	-	
9157510000	Guam Community College (NET METERED)	38,401.21	-	39,074.48	(77,475.69)	-	
9173210000	Guam Solid Waste Authority	6,023.69	-	6,341.68	(12,365.37)	-	
9337100000	Guam Waterworks Authority	1,242,598.95	-	1,308,739.63	(1,239,675.37)	1,311,663.21	
8237100000	GPA					-	

	Sub Total	**2,759,344.94**	**733.62**	**2,540,333.96**	**(3,470,275.71)**	**1,830,136.81**	
	(C) OTHERS						
0337100000	Guam Legislature	222.89	-	108.62	(331.51)	-	
9503154359	Guam Legislature (NET METER)	7,077.49	-	7,701.50	(14,778.99)	-	
1237100000	Superior Court of Guam	72,140.79	-	72,513.19	(72,140.79)	72,513.19	
2537100000	Agana (Guam) Post Office	6,093.38	-	6,252.50	(12,345.88)	-	
2570200000	Customs & Quarantine Agency	925.40	-	889.05	(1,814.45)	-	
3537100000	U.S. Post Office	44,110.02	-	43,020.83	(87,130.85)	-	
5537100000	Dept. of Military Affairs	76,414.35	-	77,668.33	(154,082.68)	-	
3209463043	Dept. of Military Affairs	16,501.13	-	17,683.61	(34,184.74)	-	
5737100000	KGTF	6,438.99	-	7,015.40	(13,454.39)	-	
7281000000	Tamuning Post Office	4,957.04	-	5,406.76	(10,363.80)	-	
	Sub Total	**234,881.48**	**-**	**238,259.79**	**(400,628.08)**	**72,513.19**	
	GRAND TOTAL	**4,916,461.38**	**120,561.43**	**4,674,162.06**	**(5,997,280.12)**	**3,713,904.75**	

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

Issues for Decision

Resolution No. 2018-16:

Relative to: Authorizing the Management of Guam Power Authority to Award the Contract for the Supply of Residual Fuel Oil No.6 to **Mobil Oil Guam**.

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

The Guam Power Authority's current contract for Supply of Residual Fuel Oil No.6 for the Baseload Plants is expiring in November 30, 2018. The new fuel supply contract is necessary to provide uninterrupted supply of fuel for the Baseload plants.

Where is the location?

Residual Fuel Oil No.6 will be supplied to the baseload plants

1. Cabras 1&2
2. MEC 8&9

How much will it cost?

The 2-year contract is estimated to cost approximately $230M requiring prior approval from the PUC.

When will it be completed?

The contract is planned for an initial period of two (2) years to commence on or about December 01, 2018 and to expire on November 30, 2020, with the option to extend for three (3) additional one-year terms.

What is its funding source?

Fuel revenue funds

The RFP/BID responses:

Five bidders responded to the solicitation under IFB GPA-009-18. **Mobil Oil Guam** was determined to the the lowest responsive and responsible bidder.

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

RESOLUTION NO. 2018-16

AUTHORIZING THE MANAGEMENT OF THE GUAM POWER AUTHORITY TO ENTER INTO A TWO YEAR CONTRACT FOR THE SUPPLY OF RESIDUAL FUEL OIL NO.6

WHEREAS, GPA's current contract extension with Hyundai Corporation for the supply of Residual Fuel Oil No.6 (RFO No. 6) is expiring in November 30, 2018; and

WHEREAS, in anticipation of this expiration date, GPA was authorized by the CCU under CCU Resolution No. 2017-40 and approved by the PUC under Docket 18-01 to issue bids for the procurement of a new residual fuel oil supply contract; and

WHEREAS, the Procurement Officer has provided adequate public announcement for the need for such fuel supply services through Invitation for Re-Bid No. GPA-009-18 describing the type of services required and specifying the type of information and data required of each offeror; and

WHEREAS, Hyundai Corporation, Mobil Oil Guam, Hanwa Corporation, Freepoint Commodities (LLC), and Vitol Inc., submitted bids for GPA consideration; and

WHEREAS, the results and evaluation of the bids are provided in Exhibits A, B, and C; and

WHEREAS, Mobil Oil Guam was determined to be the lowest, most responsive bidder meeting the requirements of the bid solicitation; and

WHEREAS, the average Fixed Premium Fee for Mobil Oil Guam of $54.700/MT (8.614/bbl) is approximately 3% higher than the current contract average Fixed Premium Fee of $53.090/MT ($8.361/bbl) as shown in **Exhibit B.** The estimated Fixed Premium Fee cost based on estimated supply quantities has a value of approximately $15,728,580.00 for the first year and $18,480,300.00 for the second year for a total of $34,208,880.00 for the two-year contract base period. The estimated cost increase in Fixed Premium for the 2-year period is approximately $1,006,879.00; and

WHEREAS, the Residual Fuel Oil No.6 Supply Contract with Mobil Oil Guam shall be for a period of two years and is anticipated to commence in December 1, 2018 and expire in November 30, 2020 with three one-year extension options renewable annually upon mutual agreement of both parties; and

WHEREAS, the award of the contract to Mobil Oil Guam based on estimated supply quantities has a value of approximately $113,345,841.00 for the first year and $116,097,561.00 for the second year for a total of $229,443,402.00 for the two-year contract period (**Exhibit C**).

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

1. The General Manager of the Guam Power Authority is hereby authorized to enter into a two (2) year contract with Mobil Oil Guam for the supply of Residual Fuel Oil No.6.

2. The General Manager of the Guam Power Authority is hereby authorized an increase in obligating authority to the annual value of the contract and execute such agreements and documents necessary for a contract with **Mobil Oil Guam**.

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 28th day of August 2018.

Certified by: **Attested by:**

JOSEPH T. DUENAS
CHAIRMAN

J. GEORGE BAMBA
SECRETARY

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

EXHIBIT A

Basis: API 12.1 | bbl/MT 6.396 | (Reference: Petroleum Table 13)

	bbls/yr	bbl/MT	mt/yr
LSFO	600,000	6.396	93,809
HSFO	1,400,000	6.396	218,887
Total RFO	2,000,000		312,695

MS IFB GPA-009-18: RFO Supply Contract
STEP 2- BID PRICE ANALYSIS

2 year Base Contract	CURRENT	BASE CONTRACT- 1st of 2 YEARS					BASE CONTRACT- 2nd of 2 YEARS					TOTAL- 2-YEAR BASE CONTRACT PERIOD				
	Hyundai Corp.	Bidder #1 Hyundai Corp.	Bidder #2 Mobil Oil Guam	Bidder #3 Hanwa	Bidder #4 FreePoint	Bidder #5 Vitol, Inc.	Bidder #1 Hyundai Corp.	Bidder #2 Mobil Oil Guam	Bidder #3 Hanwa	Bidder #4 FreePoint	Bidder #5 Vitol, Inc.	Bidder #1 Hyundai Corp.	Bidder #2 Mobil Oil Guam	Bidder #3 Hanwa	Bidder #4 FreePoint	Bidder #5 Vitol, Inc.
1. LSFO, 1.19% Sulfur max.																
Quantity (mt/yr)	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	187,617	187,617	187,617	187,617	187,617
A. Bid Price ($/mt)	$822.000	$613.180	$387.680	$399.390	$411.980	$478.880	$613.180	$400.680	$497.040	$411.980	$478.880	$613.180	$394.180	$448.215	$411.980	$478.880
ESTIMATED CONTRACT COST / YR	$77,110,694.18	$57,521,575.98	$36,367,729.83	$37,466,228.89	$38,647,279.55	$44,923,076.92	$57,521,575.98	$37,587,242.03	$46,626,641.65	$38,647,279.55	$44,923,076.92	$115,043,151.97	$73,954,971.86	$84,092,870.54	$77,294,559.10	$89,846,153.85
B. Bid Reference Price ($/mt)	$742.31	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180
C. Premium Fee ($/mt) : A-B	$79.690	$301.000	$75.500	$87.210	$99.800	$166.700	$301.000	$88.500	$184.860	$99.800	$166.700	$301.000	$82.000	$136.035	$99.800	$166.700
Variance with Current Premium Fees		($221.310)	$4.190	($7.520)	($20.110)	($87.010)	($221.310)	($8.810)	($105.170)	($20.110)	($87.010)	($221.310)	($2.310)	($56.345)	($20.110)	($87.010)
		-278%	5%	-9%	-25%	-109%	-278%	-11%	-132%	-25%	-109%	-278%	-3%	-71%	-25%	-109%
Premium Fee ($/bbl)	$12.550	$47.402	$11.890	$13.734	$15.717	$26.252	$47.402	$13.937	$29.112	$15.717	$26.252	$47.402	$12.913	$21.423	$15.717	$26.252
Variance with Current Premium Fees		($34.852)	$0.660	($1.184)	($3.167)	($13.702)	($34.852)	($1.387)	($16.562)	($3.167)	($13.702)					
% of Reference Price	26%	96%	24%	28%	32%	53%	96%	28%	59%	32%	53%					
Premium Fee Cost ($/yr)	$7,475,610	$28,236,398	$7,082,552	$8,181,051	$9,362,101	$15,637,899	$28,236,398	$8,302,064	$17,341,463	$9,362,101	$15,637,899	$56,472,795	$15,384,615	$25,522,514	$18,724,203	$31,275,797
(Premium fee in $/MT x Quantity in MT/yr)																
Savings (Additional Expense)		($20,760,788)	$393,058	($705,441)	($1,886,492)	($8,162,289)	($20,760,788)	($826,454)	($9,865,854)	($1,886,492)	($8,162,289)	($41,521,576)	($433,396)	($10,571,295)	($3,772,983)	($16,324,578)
(Current vs. Bidder's Annual Premium Fee)		Expense	Savings	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense
2. HSFO, 2.00% Sulfur max.																
Quantity (mt/yr)	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	437,774	437,774	437,774	437,774	437,774
A. Bid Price ($/mt)	$784.000	$413.180	$351.680	$390.640	$379.960	$424.880	$413.180	$358.680	$458.540	$379.960	$424.880	$413.180	$355.180	$424.590	$379.960	$424.880
ESTIMATED CONTRACT COST / YR	$171,607,254.53	$90,439,649.78	$76,978,111.32	$85,505,941.21	$83,168,230.14	$93,000,625.39	$90,439,649.78	$78,510,318.95	$100,368,355.22	$83,168,230.14	$93,000,625.39	$180,879,299.56	$155,488,430.27	$185,874,296.44	$166,336,460.29	$186,001,250.78
B. Bid Reference Price ($/mt)	$742.310	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180
C. Premium Fee ($/mt) : A-B	$41.690	$101.000	$39.500	$78.460	$67.780	$112.700	$101.000	$46.500	$146.360	$67.780	$112.700	$101.000	$43.000	$112.410	$67.780	$112.700
Variance with Current Premium Fees		($59.310)	$2.190	($36.770)	($26.090)	($71.010)	($59.310)	($4.810)	($104.670)	($26.090)	($71.010)	($59.310)	($1.310)	($70.720)	($26.090)	($71.010)
		-142%	5%	-88%	-63%	-170%	-142%	-12%	-251%	-63%	-170%	-142%	-3%	-170%	-63%	-170%
Premium Fee ($/bbl)	$6.565	$15.906	$6.220	$12.356	$10.674	$17.748	$15.906	$7.323	$23.049	$10.674	$17.748	$15.906	$6.772	$17.702	$10.674	$17.748
Variance with Current Premium Fees		$9.340	($0.345)	$5.791	$4.109	$11.183	$9.340	$0.757	$16.483	$4.109	$11.183					
% of Reference Price	13%	32%	13%	25%	22%	36%	32%	15%	47%	22%	36%	32%	14%	36%	22%	36%
Premium Fee Cost ($/yr)	$9,125,391	$22,107,567	$8,646,029	$17,173,859	$14,836,148	$24,668,543	$22,107,567	$10,178,236	$32,036,273	$14,836,148	$24,668,543	$30,753,596	$25,819,887	$32,010,006	$39,504,690	$24,668,543
(Premium fee in $/MT x Quantity in MT/yr)																
Savings (Additional Expense)		($12,982,176)	$479,362	($8,048,468)	($5,710,757)	($15,543,152)	($12,982,176)	($1,052,846)	($22,910,882)	($5,710,757)	($15,543,152)	($25,964,353)	($573,483)	($30,959,350)	($11,421,513)	($31,086,304)
(Current vs. Bidder's Annual Premium Fee)		Expense	Savings	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense
3. Total RFO (LSFO + HSFO)																
Quantity (mt/yr)	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	625,391	625,391	625,391	625,391	625,391
ESTIMATED CONTRACT COST ($/YR)	$248,717,948.72	$147,961,225.77	$113,345,841.15	$122,972,170.11	$121,815,509.69	$137,923,702.31	$147,961,225.77	$116,097,560.98	$146,994,996.87	$121,815,509.69	$137,923,702.31	$295,922,451.53	$229,443,402.13	$269,967,166.98	$243,631,019.39	$275,847,404.63
A. LEVELIZED UNIT COST ($/mt)	$795.400	$473.180	$362.480	$393.265	$389.566	$441.080	$473.180	$371.280	$470.090	$389.566	$441.080	$473.180	$366.880	$431.678	$389.566	$441.080
B. Bid Reference Price ($/mt)	$742.310	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180	$312.180
C. Average Premium Fee ($/mt)	$53.090	$161.000	$50.300	$81.085	$77.386	$128.900	$161.000	$59.100	$157.910	$77.386	$128.900	$161.000	$54.700	$119.498	$77.386	$128.900
Variance with Current Premium Fees		($107.910)	$2.790	($27.995)	($24.296)	($75.810)	($107.910)	($6.010)	($104.820)	($24.296)	($75.810)	($107.910)	($1.610)	($66.408)	($24.296)	($75.810)
		-203%	5%	-53%	-46%	-143%	-203%	-11%	-197%	-46%	-143%	-203%	-3%	-125%	-46%	-143%
Premium Fee ($/bbl)	$8.361	$25.354	$7.921	$12.769	$12.187	$20.299	$25.354	$9.307	$24.868	$12.187	$20.299	$25.354	$8.614	$18.819	$12.187	$20.299
Premium Fee Cost ($/yr)	$16,601,001	$50,343,965	$15,728,580	$25,354,909	$24,198,249	$40,306,442	$50,343,965	$18,480,300	$49,377,736	$24,198,249	$40,306,442	$100,687,929.96	$34,208,880.55	$74,732,645.40	$48,396,497.81	$80,612,883.05
Savings (Additional Expense)		($33,742,964)	$872,420	($8,753,909)	($7,597,248)	($23,705,441)	($33,742,964)	($1,879,300)	($32,776,735)	($7,597,248)	($23,705,441)	($67,485,928.71)	($1,006,879.30)	($41,530,644.15)	($15,194,496.56)	($47,410,881.80)
(Current vs. Bidder's Annual Premium Fee)		Expense	Savings	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense	Expense
											Ranking (1 as the Lowest Bidder)	5	1	4	2	3

EXHIBIT B

MS IFB GPA-009-18: RFO Supply Contract

PREMIUM FEE ANALYSIS

Basis:	API	bbl/MT	(Reference: Petroleum Table 13)
	12.1	6.396	

	bbls/yr	bbl/MT	mt/yr
LSFO	600,000	6.396	93,809
HSFO	1,400,000	6.396	218,887
Total RFO	2,000,000		312,695

RFO Supply contract	CURRENT CONTRACT Hyundai Corp.	MS IFB GPA-009-18: RFO Supply Contract LOWEST BIDDER (MOBIL OIL GUAM)		
		2-YEAR BASE PERIOD		
		FIRST YEAR	SECOND YEAR	2-Year TOTAL
1. LSFO, 1.19% Sulfur max.				
Quantity (mt/yr)	93,809	93,809	93,809	187,617
Premium Fee ($/mt)	**$79.690**	**$75.500**	**$88.500**	**$82.000** (AVG)
Variance with Current Premium Fees		$4.190 5%	($8.810) -11%	($2.310) -3%
Premium Fee Cost ($/yr)	**$7,475,610**	**$7,082,552**	**$8,302,064**	**$15,384,615**
Savings (Additional Expense) (Current vs. Bidder's Annual Premium Fee Cost)		**$393,058** Savings	**($826,454)** Expense	**($433,396)** Expense
2. HSFO, 2.00% Sulfur max.				
Quantity (mt/yr)	218,887	218,887	218,887	437,774
Premium Fee ($/mt) (Bid Price less reference Price)	**$41.690**	**$39.500**	**$46.500**	**$43.000** (AVG)
Variance with Current Premium Fees		$2.190 5%	($4.810) -12%	($1.310) -3%
Premium Fee Cost ($/yr)	**$9,125,391**	**$8,646,029**	**$10,178,236**	**$18,824,265**
Savings (Additional Expense) (Current vs. Bidder's Annual Premium Fee Cost)		**$479,362** Savings	**($1,052,846)** Expense	**($573,483)** Expense
3. Total RFO (LSFO + HSFO)				
Quantity (mt/yr)	312,695	312,695	312,695	625,391
Avg Premium Fee ($/mt)	**$53.090**	**$50.300**	**$59.100**	**$54.700** (AVG)
Variance with Current Premium Fees		$2.790 5%	($6.010) -11%	($1.610) **-3%**
Premium Fee Cost ($/yr)	**$16,601,001**	**$15,728,580**	**$18,480,300**	**$34,208,880.55**
Savings (Additional Expense) (Current vs. Bidder's Annual Premium Fee Cost)		**$872,420** Savings	**($1,879,300)** Expense	**($1,006,879.30)** Expense

EXHIBIT C

MS IFB GPA-009-18: RFO Supply Contract

ESTIMATED CONTRACT COST

Basis: bbl/MT (Reference: Petroleum Table 13)
6.396

bbls/yr	bbl/MT	mt/yr
600,000	6.396	93,809
1,400,000	6.396	218,887
2,000,000		312,695

RFO Supply contract	MS IFB GPA-009-18: RFO Supply Contract LOWEST BIDDER (MOBIL OIL GUAM)		
	2-YEAR BASE PERIOD		
	FIRST YEAR	SECOND YEAR	2-Year TOTAL
1. LSFO, 1.19% Sulfur max. Quantity (mt/yr)	93,809	93,809	187,617
Bid Price ($/mt)	**$387.680**	**$400.680**	**$394.180** (AVG)
ESTIMATED CONTRACT COST / YR	$36,367,729.83	$37,587,242.03	**$73,954,971.86**
2. HSFO, 2.00% Sulfur max. Quantity (mt/yr)	218,887	218,887	437,774
Bid Price ($/mt)	**$351.680**	**$358.680**	**$355.180** (AVG)
ESTIMATED CONTRACT COST / YR	$76,978,111.32	$78,510,318.95	**$155,488,430.27**
3. Total RFO (LSFO + HSFO) Quantity (mt/yr)	312,695	312,695	625,391
ESTIMATED CONTRACT COST ($/YR)	**$113,345,841.15**	**$116,097,560.98**	**$229,443,402.13**
LEVELIZED UNIT COST ($/mt)	$362.480	$371.280	$366.880 (AVG)

Exhibit C- Estimated Contract Cost

MS IFB GPA-009-18: RFO Supply Contract

STEP 2- BID PRICE ANALYSIS

Basis:

	API	bbl/MT	(Reference: Petroleum Table 13)
	12.1	6.396	

	bbls/yr	bbl/MT	mt/yr
LSFO	600,000	6.396	93,809
HSFO	1,400,000	6.396	218,887
Total RFO	2,000,000		312,695

2 year Base Contract	CURRENT	BASE CONTRACT- 1st of 2 YEARS					BASE CONTRACT- 2nd of 2 YEARS					TOTAL- 2-YEAR BASE CONTRACT PERIOD				
	Hyundai Corp.	Bidder #1 Hyundai Corp.	Bidder #2 Mobil Oil Guam	Bidder #3 Hanwa	Bidder #4 FreePoint	Bidder #5 Vitol, Inc.	Bidder #1 Hyundai Corp.	Bidder #2 Mobil Oil Guam	Bidder #3 Hanwa	Bidder #4 FreePoint	Bidder #5 Vitol, Inc.	Bidder #1 Hyundai Corp.	Bidder #2 Mobil Oil Guam	Bidder #3 Hanwa	Bidder #4 FreePoint	Bidder #5 Vitol, Inc.
1. LSFO, 1.19% Sulfur max.																
Quantity (mt/yr)	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	93,809	187,617	187,617	187,617	187,617	187,617
Bid Price ($/mt)	**$822.000**	**$613.180**	**$387.680**	**$399.390**	**$411.980**	**$478.880**	**$613.180**	**$400.680**	**$497.040**	**$411.980**	**$478.880**	**$613.180**	**$394.180**	**$448.215**	**$411.980**	**$478.880**
ESTIMATED CONTRACT COST / YR	$77,110,694.18	$57,521,575.98	$36,367,729.83	$37,466,228.89	$38,647,279.55	$44,923,076.92	$57,521,575.98	$37,587,242.03	$46,626,641.65	$38,647,279.55	$44,923,076.92	$115,043,151.97	$73,954,971.86	$84,092,870.54	$77,294,559.10	$89,846,153.85
2. HSFO, 2.00% Sulfur max.																
Quantity (mt/yr)	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	218,887	437,774	437,774	437,774	437,774	437,774
Bid Price ($/mt)	$784.000	**$413.180**	**$351.680**	**$390.640**	**$379.960**	**$424.880**	**$413.180**	**$358.680**	**$458.540**	**$379.960**	**$424.880**	**$413.180**	**$355.180**	**$424.590**	**$379.960**	**$424.880**
ESTIMATED CONTRACT COST / YR	$171,607,254.53	$90,439,649.78	$76,978,111.32	$85,505,941.21	$83,168,230.14	$93,000,625.39	$90,439,649.78	$78,510,318.95	$100,368,355.22	$83,168,230.14	$93,000,625.39	$180,879,299.56	$155,488,430.27	$185,874,296.44	$166,336,460.29	$186,001,250.78
3. Total RFO																
Quantity (mt/yr)	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	312,695	625,391	625,391	625,391	625,391	625,391
ESTIMATED CONTRACT COST ($/YR)	**$248,717,948.72**	**$147,961,225.77**	**$113,345,841.15**	**$122,972,170.11**	**$121,815,509.69**	**$137,923,702.31**	**$147,961,225.77**	**$116,097,560.98**	**$146,994,996.87**	**$121,815,509.69**	**$137,923,702.31**	**$295,922,451.53**	**$229,443,402.13**	**$269,967,166.98**	**$243,631,019.39**	**$275,847,404.63**
											Ranking (1 as the Lowest Bidder)	**5**	**1**	**4**	**2**	**3**

EXHIBIT D- RFO CONTRACT HISTORY

RESIDUAL FUEL OIL NO. 6 (RFO)

CONTRACT NO.	CONTRACTOR	CONTRACT PERIOD	REMARKS	PREMIUM FEE COST *			
				HSFO		LSFO	
				$/bbl	$/MT	$/bbl	$/MT
N/A	GORCO	1981 - 1986		N/A		**	
N/A	PETROMAR	1986 - 1991		$2.230	$14.718	**	
N/A	PEDCO	1986 - 1991		$3.570	$23.562	**	
N/A	PEDCO	1991 - 1994		$3.070	$20.262	**	
N/A	VITOL (Singapore)	1995 - 1996		$2.646	$17.464	$3.570	$23.562
N/A	Daxin (Singapore)	1996 - 1998		$2.230	$14.718	$3.150	$20.790
GPA-105-98	BP (Singapore)	AUG 01, 1998 - JUL 31, 2001	AUG 01, 2001 - JUL 31, 2003	$1.970	$13.002	$2.990	$19.734
GPA-007-03	BP (Singapore)	AUG 01, 2003 - JUL 31, 2006	AUG 01, 2006 - JAN 31, 2007	$2.432	$16.051	$3.946	$26.044
GPA-028-06	BP (Singapore)	Feb 01, 2007- Jan 31, 2010	2 Yrs Extension not exercised	$5.303	$35.000	$8.788	$58.001
GPA-001-10	Petrobras (Singapore)	3 Yrs (Mar 01, 2010- Feb 28, 2013)	2 Yrs Renewable annually	$4.499	$29.828	$6.501	$42.452
GPA-001-10	Petrobras (Singapore)	DEC 01, 2012 - DEC 31, 2014	6 Months Extension	$14.211	$92.800	$18.040	$117.800
GPA-068-12	Hyundai Corporation	Sep 01, 2013-Aug31, 2015	2 Years base period	$6.691	$43.690	$12.816	$83.690
GPA-068-12	Hyundai Corporation	Sep 01, 2015-Nov 30, 2018	3 Years Extension Option	$6.555	$41.690	$12.530	$79.690
GPA-009-18	Mobil Oil Guam	Dec 01, 2018 - NOV 30, 2020	2 Years base period	$6.772	$43.000	$12.913	$82.000

* Per Contract Premium Fee Schedule (In addition to direct fuel cost based on RFO MOPS average)

** LSFO supplied by the USN/PWC under Customer Service Agreement.

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUAHAN
P.O.BOX 2977 • HAGÅTÑA, GUAM U.S.A. 96932-2977

Issues for Decision

Resolution No. 2018-17:

Relative to Approving GPA's Net Metering Recommendation

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

The necessary and urgent objective of this resolution seeks approval to file and respond to the Guam Public Utilities Commission (PUC) order under Docket No. 08-10 (December 29, 2008), Exhibit A:

> **"The NM Rider is available to all customers without limitation as to the aggregate capacity of Customer-Generator installations on the GPA System. However, at the time the number of Customer-Generators exceeds one-thousand (1000) customers this issue will be reviewed by the PUC and a determination made as to the continued offering of the NM Rider for new 'net metering' customers."**

GPA achieved the milestone of 1000 net metering customers in June 2016. As of July 31, 2018, GPA has 1,733 net metering customers resulting in an approximate $3,411,623.29 annual subsidy by non-net metering customers. Additionally, GPA has conducted and completed as ordered by the Consolidated Commission on Utilities (CCU) several public meetings to:

- **Address net metering stakeholders' concerns and obtain feedback;**
- **Evaluate stakeholder feedback;**
- **Perform analysis regarding net metering impacts on the GPA especially on non-net metering customers;**
- **Propose recommendations on whether or not changing the current net metering program is in the best interests of customers while insofar as practical alleviating net metering customer concerns.**

The petition is to decrease net metering subsidy evenly over a 5-year period beginning CY'2019.

How much will it cost?

This recommendation will save non-net metering customers approximately $3,411,623.29 annually.

When will it be completed?

Upon approval of the Guam Public Utilities Commission

What is its funding source?

The Levelized Energy Adjustment Clause

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

RESOLUTION NO. 2018–17

AUTHORIZING MANAGEMENT OF THE GUAM POWER AUTHORITY (GPA) TO FILE NET METERING PROGRAM RECOMMENDATIONS ADDRESSING THE GUAM PUBLIC UTILITIES COMMISSION (PUC) ORDER DOCKET NO. 08-10 (DECEMBER 29, 2008), EXHIBIT A, PARAGRAPH 3

WHEREAS, Guam Public Law 27-132 (2004) created Net Metering for Guam and assigned the Guam Public Utilities Commission (PUC) the responsibility for setting the Net Metering Rate for excess renewable energy fed into GPA's Distribution System; and

WHEREAS, the Guam Public Utilities Commission (PUC) ordered GPA to execute the Interim Net Metering (NM) Rider under Docket No. 08-10 (December 29, 2008); and

WHEREAS, under Docket 08-10, Exhibit A (paragraph 1), the PUC states: "The NM Rider may be amended or modified in the future by GPA, with the approval of the Guam Public Utilities Commission (PUC)"; and

WHEREAS, under Docket 08-10, Exhibit A (paragraph 3), the PUC orders: "The NM Rider is available to all customers without limitation as to the aggregate capacity of Customer-Generator installations on the GPA System. However, at the time the number of Customer-Generators exceeds one-thousand (1000) customers this issue will be reviewed by the PUC and a determination made as to the continued offering of the NM Rider for new 'net metering' customers."; and

WHEREAS, GPA achieved the milestone of 1000 net metering (NEM) customers in June 2016; and

WHEREAS, NEM customers receive services from the grid subsidized by non-NEM customers including but not limited to: 1) Use of the grid to sell power (get credit at full retail rate for excess production); 2) Use of the grid to energize their homes at night; 3) Frequency regulation absorbed by grid for intermittencies; 4) Reactive power supply; 5) Voltage regulation; and 6) Stand-by power on overcast days when the sun does not shine.

WHEREAS, GPA has 1,733 net metering customers (July 31, 2018) resulting in an approximate $3,411,623 annual subsidy going forward and from 2009 to 2017 a total subsidy of approximately $6,562,968.64 paid for by non-net metering customers; and

WHEREAS, as ordered by the Consolidated Commission on Utilities (CCU), GPA has conducted and completed several public meetings to: 1) Address net metering stakeholders' concerns and obtain feedback; 2) Evaluate stakeholder feedback; 3) Perform analysis regarding net metering impacts on the GPA especially on non-net metering customers; and, 4) Propose recommendations on whether or not changing the current net metering program is in the best interests of customers while insofar as possible alleviating net metering customer concerns; and

WHEREAS, the GPA General Manager presented the Authority's Net Metering (NEM) Credit Recommendation **(Exhibit A)** at the August 28, 2018 CCU Meeting held publicly; and

WHEREAS, GPA recommends the following Value of Solar (VOS) Policies as a replacement for the existing Net Metering Program including: 1) Grandfathering existing registered NEM customers for a period of 5 years allowing customers who own NEM systems to recover their investment while phasing in VOS rates over this extended 5-year time period; and filing for PUC approval a process to establish Value of Solar (VOS) rates;

WHEREAS, the process to establish Value of Solar (VOS) rates would: 1) Reassess VOS rates each LEAC for Avoided Energy Value; 2) Reassess VOS rates for other VOS components as applies on a) an annual basis; b) periodic basis over a set number of years; and 3) whenever there are material changes to GPA's generation mix; 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:

1. The General Manager is authorized to file a petition of its Value of Solar Policy Recommendations as shown in **Exhibit A** to the Guam Public Utilities Commission. The petition is to decrease net metering subsidy evenly over a 5-year period beginning Calendar Year 2019.
2. The General Manager is authorized to conduct an information campaign supporting these recommendations.

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

DULY and REGULARY ADOPTED this 28th day of August 2018.

Certified by: **Attested by:**

JOSEPH T. DUENAS
CHAIRMAN

J. GEORGE BAMBA
SECRETARY

SECRETARY'S CERTIFICATE

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: _____

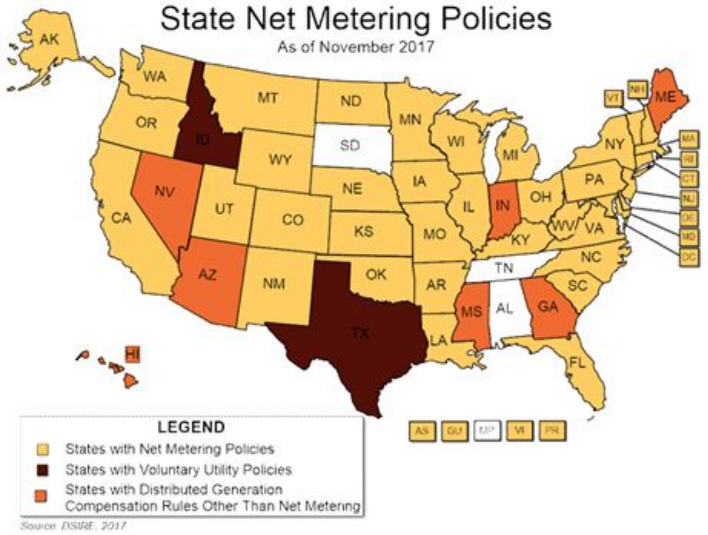
Abstain: _____

ISSUE FOR DECISION

Net Metering (NEM) Credit Recommendation

OVERVIEW – NET METERING POLICIES

- Thirty Eight (38) States, Washington D.C., and Four (4) Territories Offer Net Metering and utilities in two additional states (Idaho and Texas adopted Net Metering (Full Retail Credit).
- Arizona, Georgia, Hawaii, Indiana, Maine and Mississippi have compensation other than net metering.
- The Value of Solar (VOS) is an alternative to net metering. Customers buy from the grid at retail rate and sell to the grid at an established VOS rate. Only Minnesota and Austin Energy (Texas) has adopted a VOS rate.



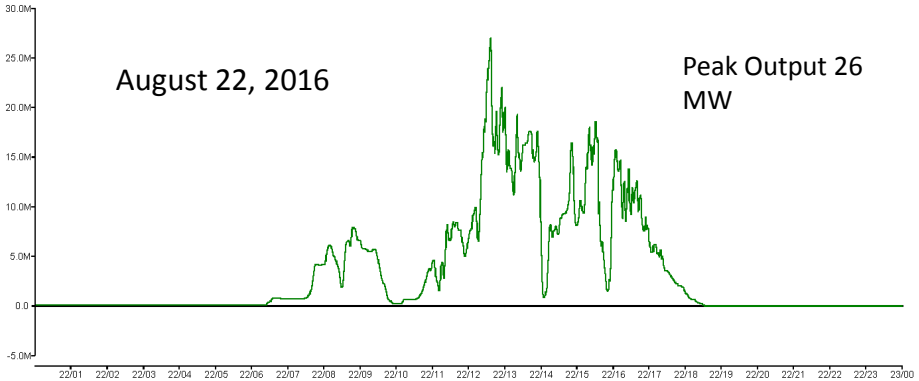
Source: National Council of State Legislatures: 11/20/17

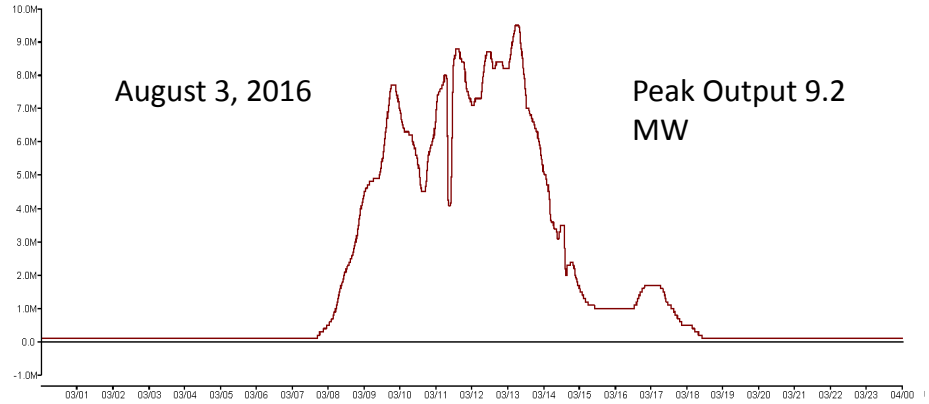
Guam NEM Program

- Program Mandated in 2004. Guam has been crediting NEM customers full retail rate over the past 13 years. Excess credit carried over or paid out annually at full retail rate.
- PUC to evaluate program and credits provided when GPA has 1,000 NEM Customers which occurred in June 2016.
- As of July 2018, GPA has 1,733 NEM Customers (94.7% Residential), with 18,315 KW of capacity. The revenue impact on non-NEM ratepayers is estimated at $3.4M annually.
- CCU/GPA conducted its first public hearing on NEM in August 2016 to gather input from stakeholders in order to prepare its filing to the PUC for changes in rate credits in order to achieve parity amongst all ratepayers.

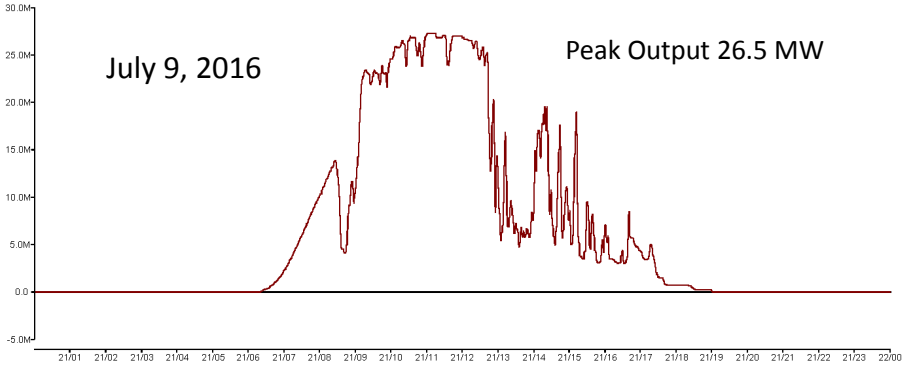
Solar PV Energy Production Characteristics

Utility Scale PV Output Look Like This …





NEM does not eliminate need for capacity

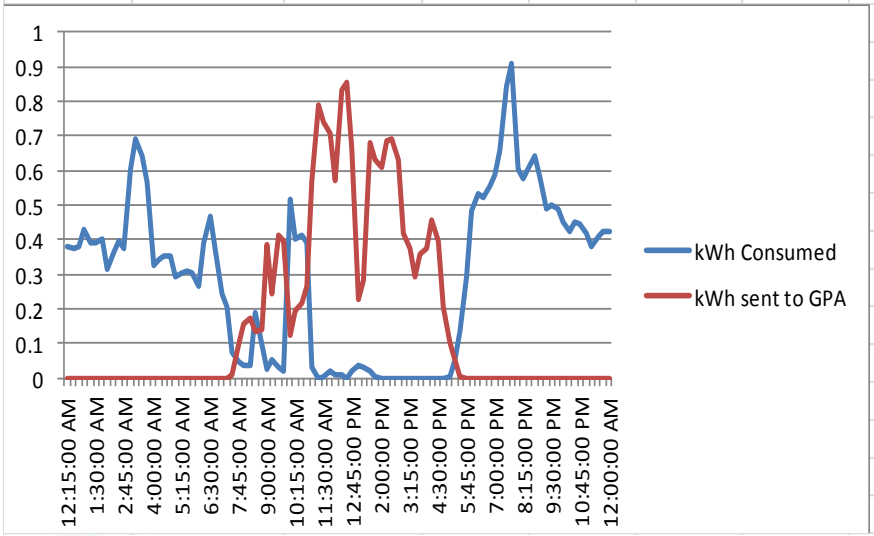


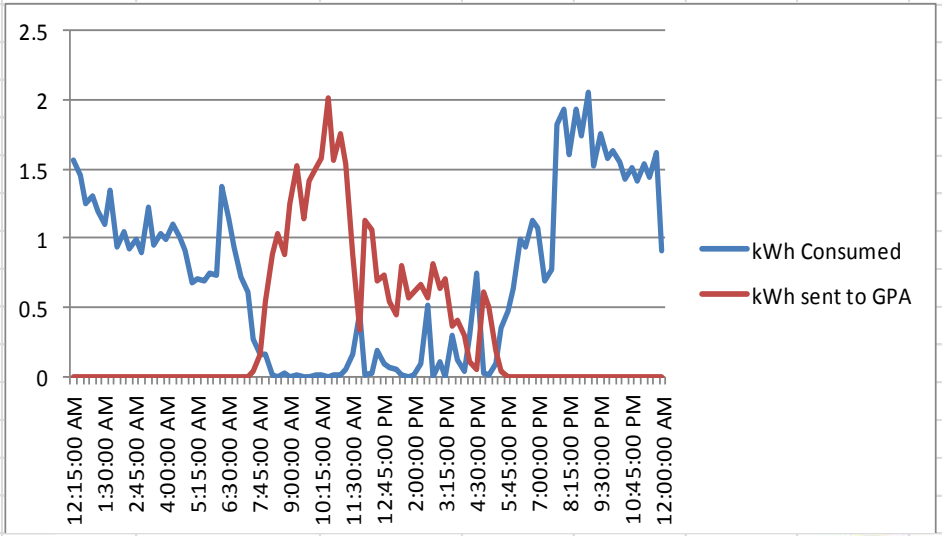
PV without adequate storage is not a capacity benefit. It is an energy benefit.

NEM Customer Profiles

Date:	14-Jun-16		
PV System KW Size	5.0		
GPA KWH 12am to 7am	11.05		
GPA KWH 7am to 6pm	3.66		
GPA KWH 6pm to 12am	**12.92**	**Evening Peak**	
NEM KWH 7am to 6pm	16.14		
Net GPA KWH	11.49		

Date:	14-Jun-16		
PV System KW Size	12.4		
GPA KWH 12am to 7am	28.9		
GPA KWH 7am to 6pm	6.1		
GPA KWH 6pm to 12am	**34.6**	**Evening Peak**	
NEM KWH 7am to 6pm	32.5		
Net GPA KWH	37.1		

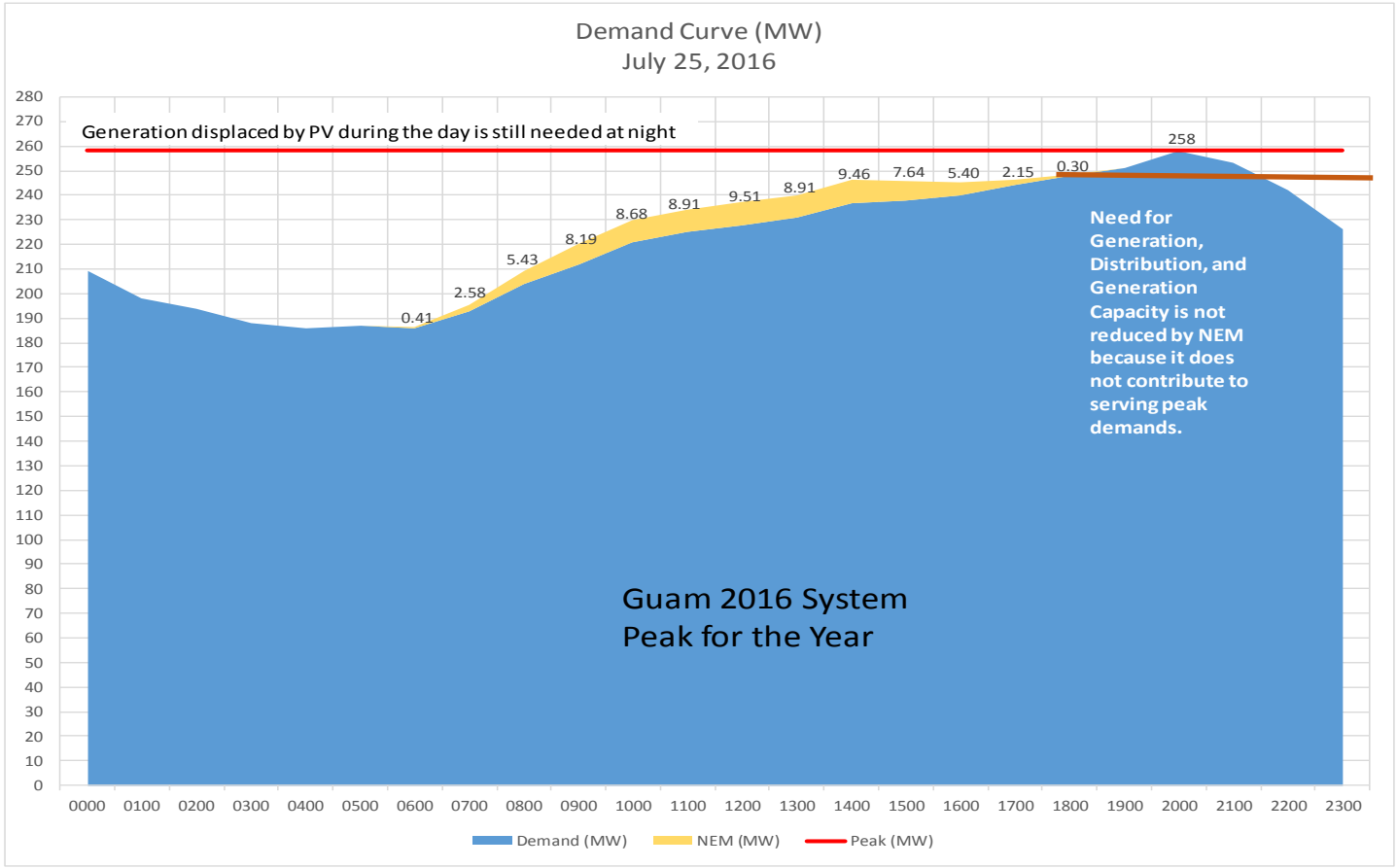




Does NEM Lower Guam Generation Capacity Requirements?

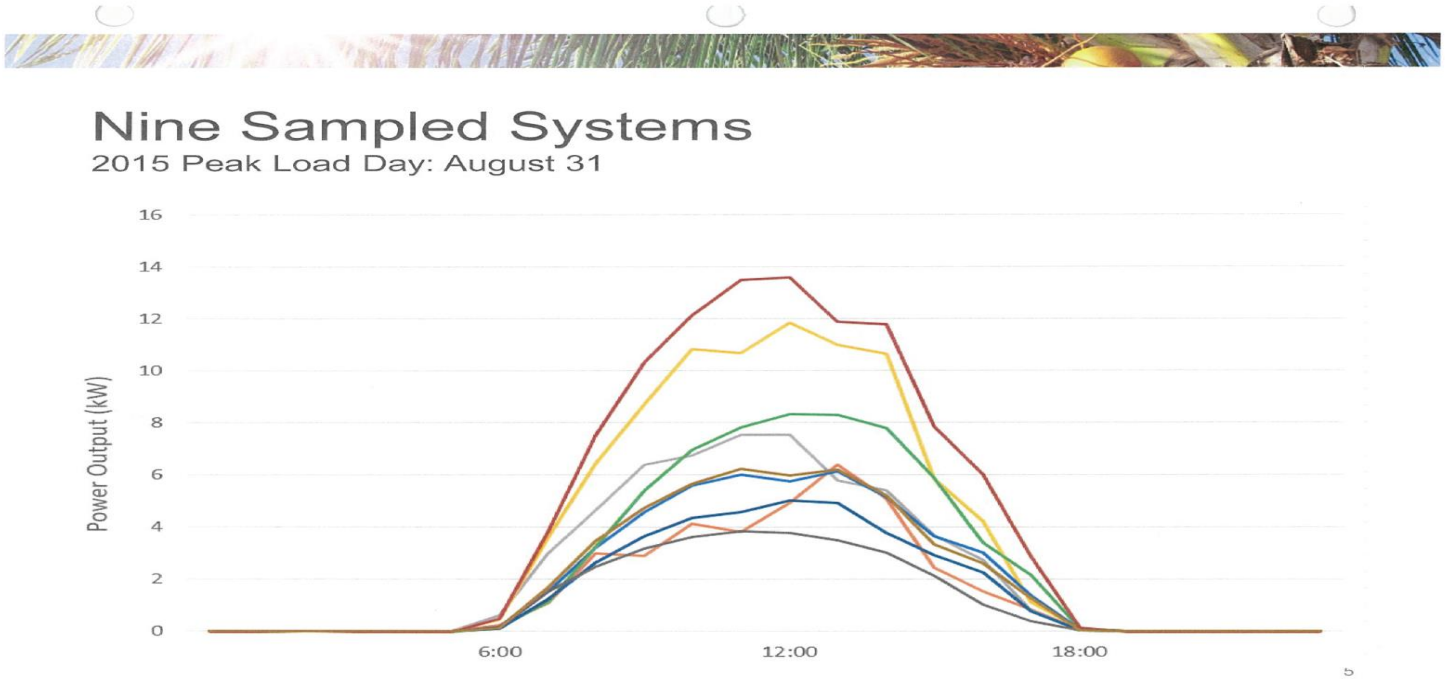
No. NEM Solar PV systems in Guam does not reduce peak demand and therefore does not eliminate conventional capacity needs

Transmission, Distribution, or Generation Capacity for Guam Not Reduced by PV



NEM Peak Production not at GPA Peak Demand Period

Source: Clean Power Resource Report



Net Metering Policy Issues

- Replacement for Net Metering Program
- Grandfathering existing registered NEM customers
  - Allow customers who own system to recover investment
  - Phase in to avoided cost rates over a 5 to 8 year period
- GPA files for PUC approval:
  - Reassessed NEM rates each LEAC for Avoided Fuel Value
  - Reassessed NEM rates for other components
    - Annually
    - Periodically over a set number of years
    - When GPA's generation mix changes

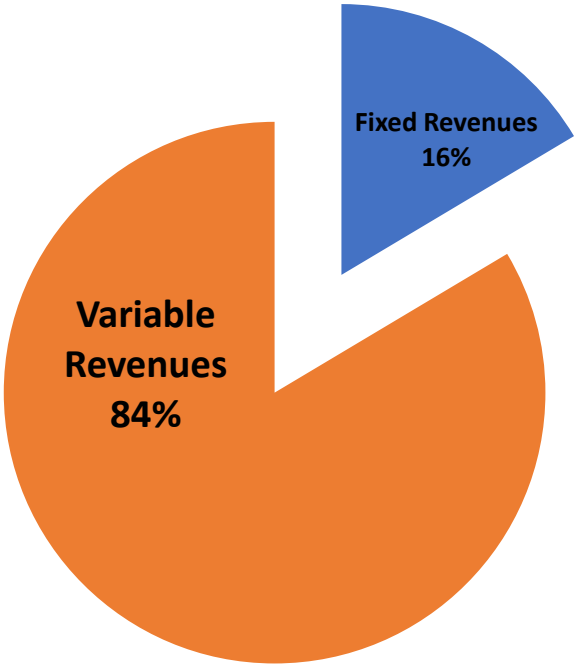
Value of the Grid to NEM Customers

- NEM customers receive services from the grid including:
  - Use the grid to sell power (get credit at full retail rate for excess production)
  - Use the grid to energize their homes at night, but credited back from their production (Uses GPA Grid as storage)
  - Using Grid at night results in increased fuel cost to non-NEM Customers because costlier less efficient generation is used to generate their energy needs
  - Frequency regulation absorbed by grid for intermittencies
  - Reactive power supply
  - Voltage regulation
  - Stand-by power on overcast days when the sun does not shine

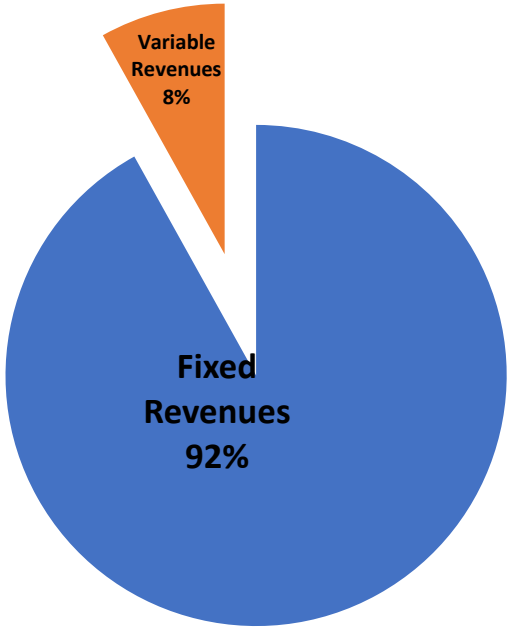
- Monthly fixed charge of $15 does not recover cost to serve from grid
  - Most of GPA fixed cost is recovered in the energy use (kWh) rate component which is typically zero for NEM customers

Rate Structure & Fixed Cost Recovery

Civilian Fixed vs Variable Revenues



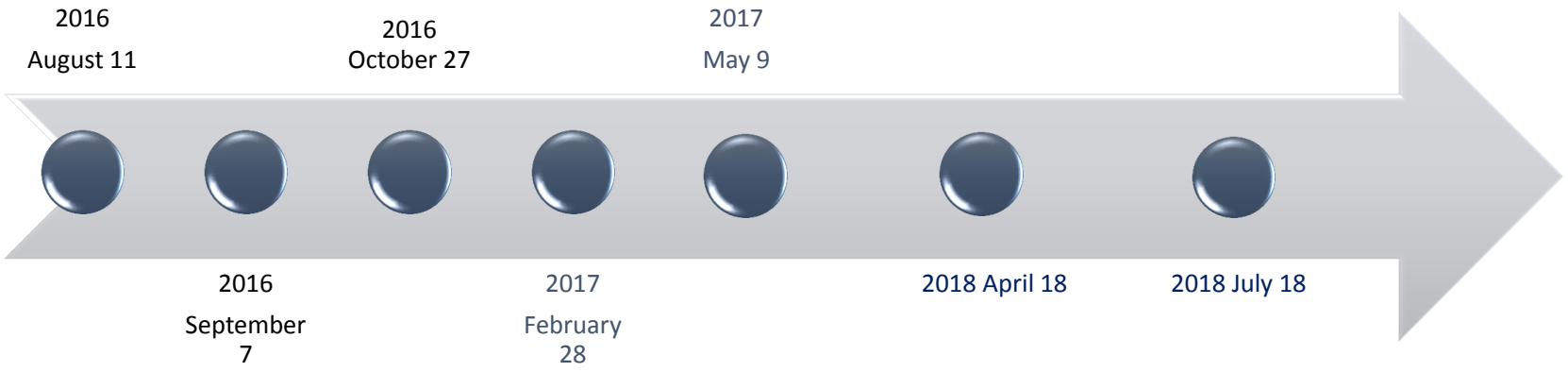
Navy Fixed vs Variable Revenues



GPA Rate Structure Should Move Towards Recovering More Fixed Costs Through Fixed Charges.

- Civilian rate structure
  - Most of GPA fixed costs recovered in the variable rate
- Navy rate structure
  - Most of GPA fixed costs recovered in the fixed rate
- Hawaii has moved to fixed cost recovery predominantly through its fixed rate

Net Metering Public Meetings Held to Gather Input from Stakeholders



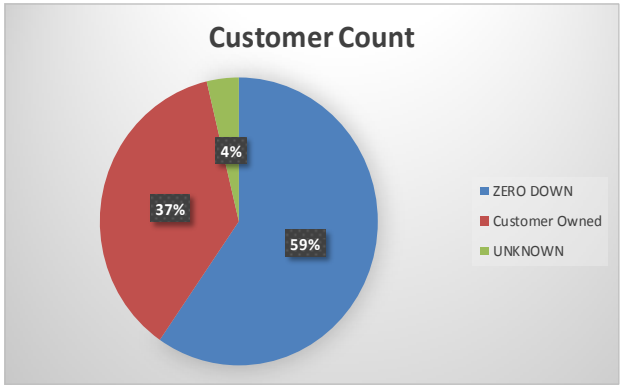
Key Points from Public Meetings

- Solar PV providers opined the B&V report provides all the gain to GPA and did not represent true value of solar
- NEM Owner wants to recover his investment. Asked for grandfathering until he does so. He said it will take 7 years to recover his $60K investment
- NEM not meant to be money making business but a fair exchange of trade energy…some customers making money from units sized beyond their needs
- The applicability of NEM program to 3rd party providers need to be clarified
- Solar PV provider wants NEM program to continue up to 20% penetration similar to Hawaii
- Solar PV provider wanted more time to provide a report on Value of Solar and bring to GPA for information. Report was completed and presented by Clean Power Research on April 18, 2018

Key Points from Public Meetings (continued)

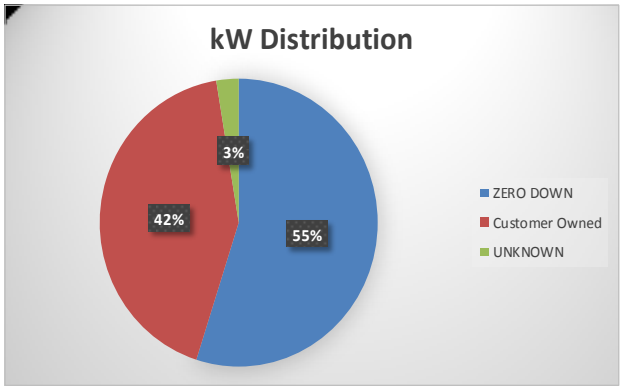
- Solar PV provider commented the NEM energy saves the utility cost on:
  - Maintenance cost for generations, poles, labor, lines, substations, transformers, etc.
  - Reduction of line losses because energy is near customers
  - Costs associated with fuel and fuel shipments
  - Helps GPA achieve energy portfolio reducing need for more renewable projects
  - Savings to environment; lessens carbon foot print
- Solar PV Provider-GPA should consider subsidies for home energy storage systems
- Solar PV Provider-GPA should consider grandfathering NEM customers through a phased approach
- No new points placed forward at the July 18, 2018 public meeting where the GM presented his recommendations which were previously presented to CCU

NEM – PV Statistics



Customer Count

Description	Number of Customers
ZERO DOWN	979
Customer Owned	602
UNKNOWN	61
Grand Total	**1,642**



kW Distribution

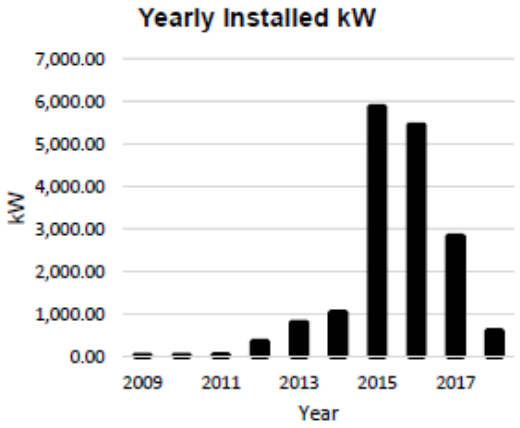
Description	kW
ZERO DOWN	9,326
Customer Owned	7,212
UNKNOWN	440
Grand Total	**16,978**

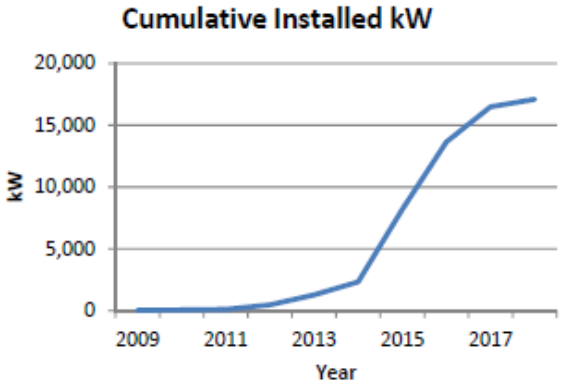
March 2018

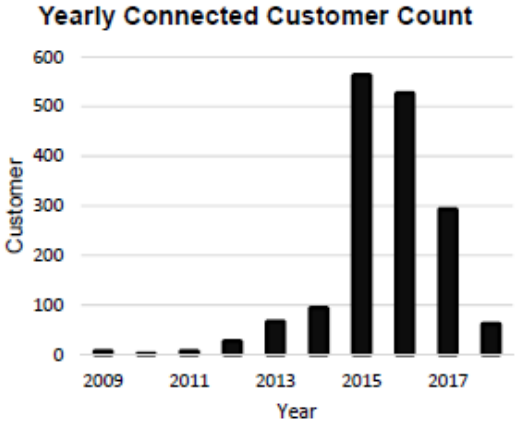
Customer Class	KW	NEM	Customers	Percent of Customer Class
R - Residential	14,119	1,562	43,756	3.6%
J - Small General Service Demand	1,647	32	987	3.2%
K - Small Government Demand	318	9	348	2.6%
L - Large Government Demand	23	1	45	2.2%
P - Large General Demand	241	3	116	2.6%
G - Small General Non Demand	666	33	4,127	0.8%
S - Small Government Non-Demand	79	7	681	1.0%
Total	**17,092**	**1,647**	**50,060**	

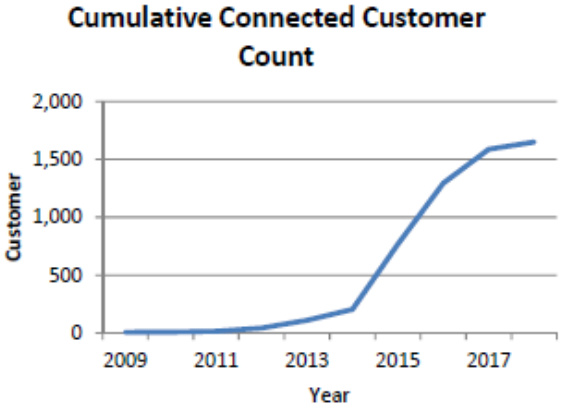
Projected FY 2018 Non-Fuel Revenue Loss				
Customer Rate Class	Renewable Energy Capacity (kW)	Annual kWh Generated (@5.092 hours/day)*	Average Non-Fuel Yield $/kWh	Estimated Annual Revenue Loss
R	13,693	25,447,071	0.09293	$ 2,364,822
J	1,647	3,059,970	0.13112	401,226
K	318	590,618	0.13932	82,286
L	23	42,373	0.13525	5,731
P	241	447,331	0.11539	51,617
G	636	1,182,853	0.15084	178,417
S	79	146,447	0.15334	22,456
Grand Total	**16,636**	**30,916,662**		**$ 3,106,555**

*Estimated number of hours from NREL for Guam (13.4° North and 144° East).









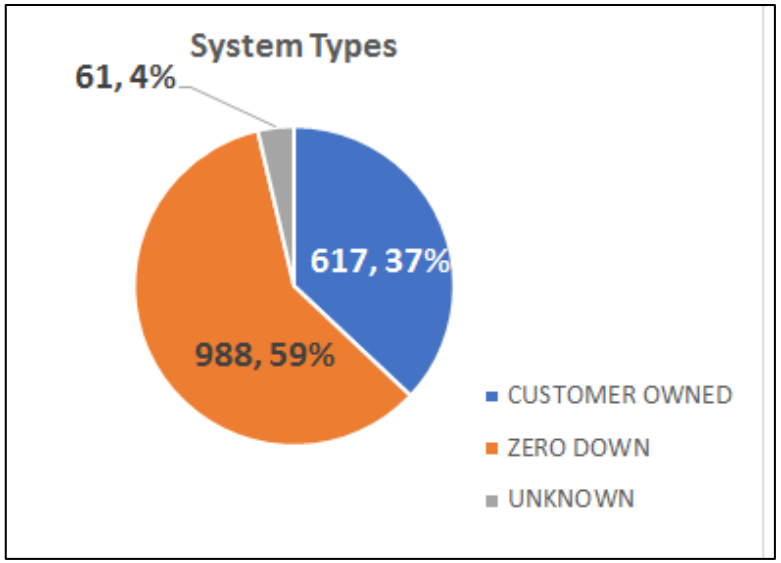
NEM Market Analysis

- Product Lifecycle Stages
  - 2009 -2011 Introduction
  - 2012 – 2014 Growth
  - 2015 – 2016 Maturity
  - 2017 – Present Decline



Market Share of Competitors

Firm	Count	Capacity (KW)	% of Installed System
Company A	747	6,882	40.3%
Company B	271	2,337	13.7%
Company C	229	2,426	14.2%
Company D	147	2,410	14.1%
Owner Installed	90	1,088	6.4%
Company E	29	470	2.7%
Company F	26	357	2.1%
Company G	13	100	0.6%
All Other Companies/Self Constructed Combined	35	576	3.4%
Unknown	62	449	2.6%
Totals:	1,649	17,095	100.0%



GPA Value of Solar from an Avoided Cost Perspective

Cost Category	FY 2017	Cost per kWh Sold	GPA Avoided Cost ($/kWh)
Generation + IPP Costs			
Other Production - Fixed O&M	$ 17,783,917	$ 0.0110	
IPP Costs - Fixed O&M	$ 16,958,770	$ 0.0105	
IPP Costs - Variable O&M	$ 2,976,564	$ 0.0018	$ 0.0018
Transmission & Distribution	$ 11,703,969	$ 0.0073	
Admin and General			
Payroll, benefits, retirement	$ 12,862,412	$ 0.0080	
Insurance	$ 7,252,504	$ 0.0045	
Contracts	$ 4,024,943	$ 0.0025	
Utilities	$ 1,817,009	$ 0.0011	
Office supplies & Others	$ 844,349	$ 0.0005	
Customer Accounting	$ 4,756,213	$ 0.0030	
Debt Service	$ 56,937,000	$ 0.0354	
CIPs/Others	$ 26,731,639	$ 0.0166	
Total (Base Rate Revenues)	$ 164,649,289	$ 0.1023	
Fuel Costs	$ 181,683,506	$ 0.1128	
Fuel Consumption, plus the under recovery of $15.3 M)	$ 165,692,714	$ 0.1029	$ 0.1029
Fuel Handling	$ 7,128,512	$ 0.0044	
Renewables	$ 8,862,280	$ 0.0055	
Total	346,332,795	$ 0.2151	
Energy losses at 3.5%		$ 0.0054	$ 0.0054
Environmental cost		$ 0.000039	$ 0.000039
Total Avoided Cost			**$ 0.1102**
Average cost in 2017 per kWh		$ 0.2151	$ 0.2151
Credit Beyond Avoided Cost			**$ 0.1049**

Energy Storage System (ESS) Cost Frequency Control

FY2019	
Total KWH Sales Projected:	1,610,093,011
ESS Annual Debt Service & O&M:	$ 2,829,348
$/kWh:	$0.0018

GPA provides low cost energy storage

New 40 MW Energy Storage System Commissioning December 2018

Value of Solar Comparison

Only Minnesota and Austin Energy (Texas) adopted VOS Model

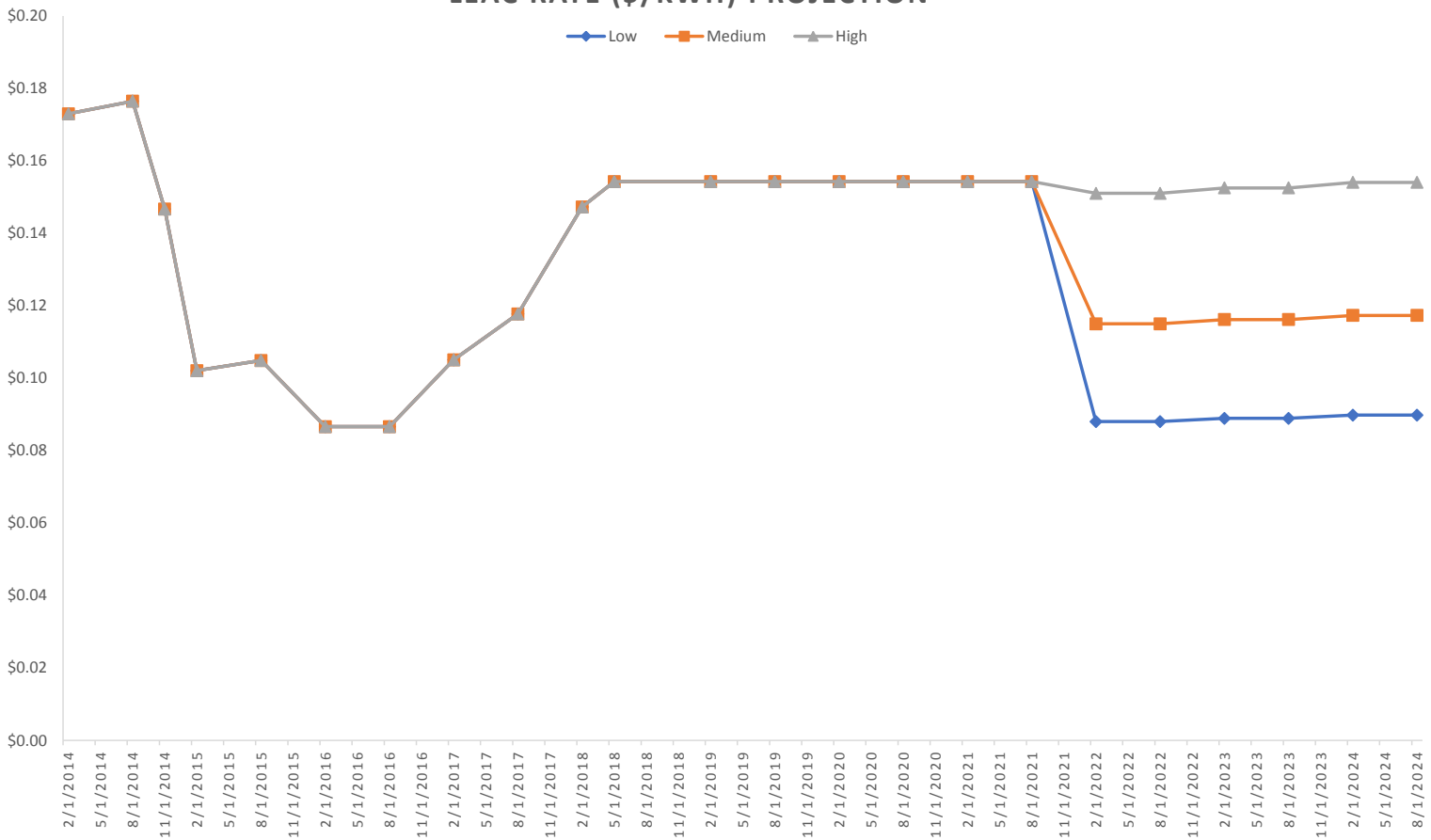
Cost Category	Minnesota	Austin Energy	Clean Power Research (MRE)	GPA Avoided Cost FY 2017	Comments
Fuel Cost	X	X	$0.1260	$0.1029	Close Agreement
Energy Losses	X	X	$0.0054	$0.0054	In Agreement
Plant O&M-Fixed	X	X			
Plant O&M-Variable	X	X		$0.0018	Minor Cost Impact
Generation Capacity Cost	X	X	$0.0490		No Capacity Avoided
Reserve Capacity Cost	X				
Transmission Capacity Cost	X	X			
Distribution Capacity Cost	X	X			
Environmental Cost	X	X		$0.0001	Minor Cost Impact
Voltage Control Cost	X				
Solar Integration Cost	X				
Avoided Fuel Hedging Uncertainty Cost			$0.0590		N/A - GPA Does Not Hedge
Avoided Mandated RPS Cost			$0.0310		GPA meeting RPS at Savings not Cost
Total:			**$0.2704**	**$0.1102**	**Variance Subsidized by Non-NEM Ratepayers**

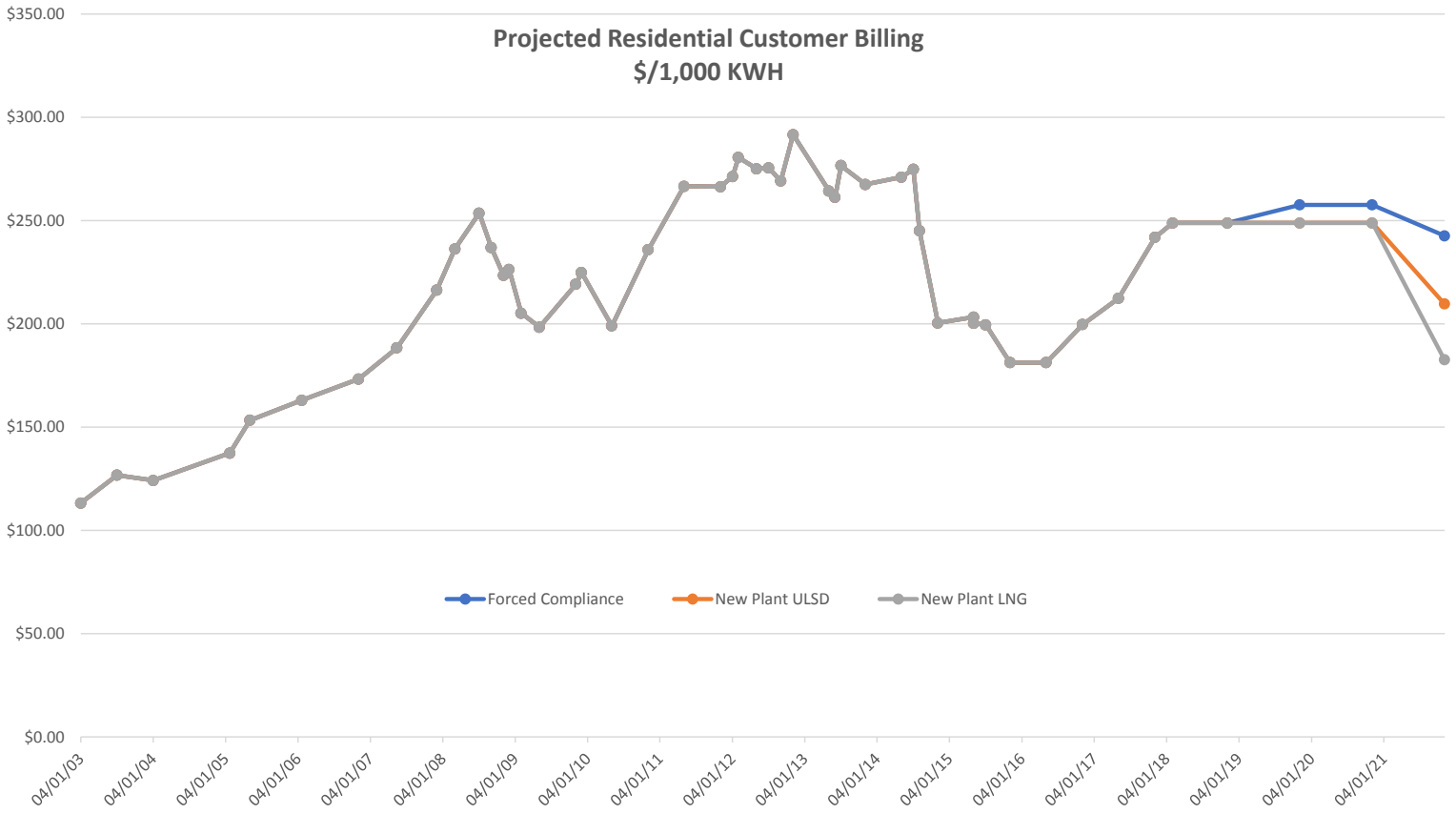
Value of Solar Comparison

Adjusted to GPA Actual Cost

Cost Category	Clean Power Research (MRE)	Revised CPR/MRE Based on Comments	GPA Avoided Cost FY 2017	Comments
Fuel Cost	$0.1260	$0.1029	$0.1029	Adjusted based on LEAC for Similar FY 2017 Period
Energy Losses 4.6%	$0.0054	$0.0047	$0.0047	In Agreement
Plant O&M-Variable			$0.0018	GPA Determined Minor Cost Impact
Generation Capacity Cost	$0.0490	$0.0000	$0.0000	No Capacity Avoided because does not Reduce Peak Demand
Environmental Cost			$0.0001	GPA Determined Minor Cost Impact
Avoided Fuel Hedging Uncertainty Cost	$0.0590	$0.0000	$0.0000	Not Applicable - GPA Does Not Hedge, Therefore No Cost
Avoided Mandated RPS Cost	$0.0310	$0.0000	$0.0000	GPA meeting RPS at a Savings not a Cost
Total:	**$0.2704**	**$0.1076**	**$0.1095**	

LEAC RATE ($/KWH) PROJECTION




Projected Residential Customer Billing
$/1,000 KWH
$350.00
$300.00
$250.00
$200.00
$150.00
$100.00
$50.00
$0.00
Forced Compliance
New Plant ULSD
New Plant LNG
04/01/03
04/01/04
04/01/05
04/01/06
04/01/07
04/01/08
04/01/09
04/01/10
04/01/11
04/01/12
04/01/13
04/01/14
04/01/15
04/01/16
04/01/17
04/01/18
04/01/19
04/01/20
04/01/21

Net Metering Economics

When Do Customer-Owned NEM Recover their Investment?

Value of Solar Payment Versus Simple Payback						
$/Kwh Credit	**$0.10**		**$0.12**		**$0.27**	
ITC Valid	**2018-2019**		**2018-2019**		**2018-2019**	
Solar PV All-In Cost ($/W)	**30.0% ITC**		**30.0% ITC**		**30.0% ITC**	
	Simple Payback (years)	**IRR (%)**	**Simple Payback (years)**	**IRR (%)**	**Simple Payback (years)**	**IRR (%)**
1.00	6	18.8%	5	23.9%	2	53.0%
1.25	7	14.6%	6	18.8%	3	42.2%
1.50	8	11.6%	7	15.3%	3	35.0%
1.75	10	9.5%	8	12.7%	4	29.8%
2.00	11	7.8%	9	10.7%	4	25.9%
2.25	12	6.4%	10	9.1%	5	22.9%
2.50	**14**	**5.2%**	**11**	**7.8%**	**5**	**20.4%**
2.75	15	4.2%	12	6.6%	**6**	18.4%
3.00	17	3.4%	13	5.7%	**6**	16.7%
3.25	18	2.6%	14	4.8%	**7**	15.2%
3.50	20	1.9%	16	4.1%	**7**	13.9%
3.75	21	1.3%	17	3.4%	**8**	12.8%
4.00	**23**	**0.8%**	**18**	**2.8%**	**8**	**11.8%**
4.25	25	0.3%	19	2.2%	9	10.9%

NEM Customer Owned Solar PV

At GPA Retail Rate Credit Recovers Investment in 5 to 8 Years

GPA Residential Retail Rate Credit:			
Average $/W Installed	**$3.25/Watt**	**Annual Savings**	**Simple Payback Years**
PV KW Capacity	7.69		
Annual Capacity Factor	20.0%		
Annual Kwh Production	13,473		
Average LEAC	$0.147		
Average Base Rate	$0.093		
Total Average rate	**$0.240**		
Annual Energy Cost Avoided	$3,233.49		
Installation Cost - No Tax Credit	$24,993		**7.7**
15 Year Loan Annual Payment, 8%, 15 years	$2,919	$314.49	
With Tax Credit	$17,495		**5.4**
15 Year Loan Annual Payment, 8%, 15 years	$2,043	$1,190.49	

NEM Customer Owned Solar PV

At GPA 2018 LEAC Rate Credit Recovers Investment in 8 to 12 Years

GPA 2018 LEAC Rate Credit:			
Average $/W Installed	**$3.25/Watt**	**Annual Savings**	**Simple Payback Years**
PV KW Capacity	7.69		
Annual Capacity Factor	20.0%		
Annual Kwh Production	13,473		
Average LEAC	$0.154		
Average Base Rate	$0.000		
Total Average rate	**$0.154**		
Annual Energy Cost Avoided	$2,074.82		
Installation Cost - No Tax Credit	$24,993		**12.0**
15 Year Loan Annual Payment, 8%, 15 years	$2,919	-$844.18	
With Tax Credit	$17,495		**8.4**
15 Year Loan Annual Payment, 8%, 15 years	$2,043	$31.82	

Summary

- Net Metering was established 13 years ago in 2004. Substantial Changes has occurred on GPA delivery cost and more changes expected by 2022.
- Customer Owned NEM System recovers its investment within 5 to 8 years from installation at GPA full Retail Rate Credit.
- Customer Owned NEM System recovers its investment within 8 to 12 years from installation at GPA LEAC Avoided Cost Rate Credit.
- It appears Zero Down Customers with 2.9% escalators will incur higher cost over the life of their 25 year contract. A $0.18/KWH rate in 2018 becomes $0.357/KWH in 2042.

Additional Information on Net Metering

Estimated Cost Impact to Non-Net Metering Ratepayers:			
NEM Credit above avoided cost	**Estimated Kwh**	**Estimated Subsidy**	**$/Kwh**
FY 2009	23,912	$1,657	$0.0693
FY 2010	98,830	$8,483	$0.0858
FY 2011	170,070	$18,177	$0.1069
FY 2012	494,672	$58,546	$0.1184
FY 2013	1,556,949	$178,996	$0.1150
FY 2014	3,137,212	$410,559	$0.1309
FY 2015	7,383,621	$856,921	$0.1161
FY 2016	21,867,383	$2,200,795	$0.1006
FY 2017	28,242,917	$2,828,834	$0.1002
FY 2018	**33,921,230**	**$3,411,623**	$0.1006
Totals:	**96,896,796**	**$9,974,591**	
Net Metering Customers July 2018	1,733		
Total GPA Customers	51,515		
% NEM Customers	3.36%		
Non-NEM Customers	49,782		
% Non-NEM Customers	96.64%		

Jurisdiction	Years	Notes
Arkansas	20	
Neveda	20	
Utah	18	Until 2035
California	5	Residential, require application
	10	Other, require application
Arizona	20	Require application by June 12, 2018
Florida	20	March 31, 2018 final inspection, JEA
New Hampshire	22	Until 2040
Indiana	29	NEM customers prior to July 1, 2017 have until July 1, 2047
	14	NEM customers signing up prior to July 1, 2022 or their utility reaching a 1.5% peak summer load cap can continue net metering until July 1, 2032
Maine	15	Existing 2017 customers
Michigan	10	Limited to NEM that is already in the system
Hawaii (HECO, MECO, HELCO, Molakai, Lanai)	∞	NEM application was submitted to the utility postmarked 10/12/15 or earlier
Vermont	10	Net metering systems with a complete Certificate of Public Good application filed with the PSB prior to January 1, 2017 (as long as the application was filed at a time when the electric company was accepting net metering systems, based on the state's former aggregate capacity limit) are grandfathered

- Utilities and States Differ on Grandfathering NEM Customers
- Many Jurisdictions are Ending Net Metering

5

Maine

- In early 2017, Maine became the fourth state to more appropriately compensate net metering. The Public Utilities Commission adopted a ramp-down policy, which gradually harmonizes the transmission and distribution charges for net metering customers, aligned with true avoided costs.
- The rules grandfather existing customers for 15 years.

Source: Tanton, Thomas. (April 2018) Net Metering in the States: Moving Toward Equitable and Sustainable Policies for Electric Customers. URL at http://sglf.org/wp-content/uploads/sites/2/2018/04/SGLF-Net-Metering-In-the-States-by-Thomas-Tanton-April-2018.pdf (August 17, 2018).

7

Hawaii

- Marco Mangelsdor, president of installer ProVision Solar.
  - "… Hawaii's net energy metering (NEM) policy has "88% of the utility's ratepayers subsidizing the 12% who have net energy metered systems."
  - He believes utility's concern about that shift of costs for system maintenance is reasonable.
  - "The cost of NEM was $38 million in 2013 and it is estimated at $53 million in 2014. These are not trivial dollars."

11

California

- One of the first studies to quantify the magnitude of the NEM subsidy was conducted by Energy+Environmental Economics (E3) for the California Public Utilities Commission (CPUC) in 2013.
- The E3 study estimated that NEM would result in a cost shift of $1.1 billion annually by 2020 from NEM to non-NEM customers if current NEM policies were not reformed in California.
- A cost shift of this magnitude–paid for by non-NEM customers–was unacceptable to California regulators.
- As a result, California regulators set to work to reform rates in their state; many other states followed suit and conducted similar investigations of the magnitude of the NEM subsidy.

12

Nevada

- Recently, Arizona Public Service (APS), the state's largest utility, found that solar customers avoid on average around $1,000 annually in costs for operating the electric grid, costing the average power user, who must make up the cost, a $16.80 premium per year.

Louisiana

- Overall, the state found that its net metering structure resulted in an $89 million negative net benefits to electricity rate payers, meaning the net metering program costs are greater than program benefits, and that over $2 million of utility costs per year were being subsidized by non-solar consumers.

14

See attached Article of May 18, 2018 by Institute for Energy Research (IER)

Subsidies uncheck will continue to impact Non-Net Metering substantially:

Guam is at 3.36%; Hawaii is at 12 % NEM;

Description:	**Jul-18**	**Future**	**Future**	**Future**
% of All Customers	3.36%	5.00%	10.00%	15.00%
NEM Customers	1,733	2,576	5,152	7,727
Energy Produced	33,921,230	50,416,970	100,833,939	151,250,909
Annual Subsidy	$3,411,623	$5,071,652	$10,143,304	$15,214,955
Non-Nem Customers	49,782	48,939	46,364	43,788
Cost to each Non-NEM	**$68.53**	**$103.63**	**$218.78**	**$347.47**

Recommendation

1. CCU approve GPA filing a petition to the PUC as shown herein to consider changes to the existing net metering credit
2. Recommend an implementation plan for billing NEM customers on net billing: Buy All/Sell All or similar billing models
3. GPA files with GPUC for adjustment of net metering credits from retail to avoided cost
4. It is recommended that for existing NEM Customers, implement a Grandfather phase-in approach over 5 years to the GPA avoided cost credit as shown on the following page. Adjustments for LEAC, line loss and variable cost changes done annually.
5. For future NEM customers, credit set at the GPA avoided cost

Migrate to Avoided Cost in Phases as Follows:			
Year	Estimated Kwh	*$/Kwh	Subsidy
CY 2018	33,921,230	$0.1006	$3,411,623
CY 2019	33,921,230	$0.0805	$2,729,298
CY 2020	33,921,230	$0.0603	$2,046,974
CY 2021	33,921,230	$0.0402	$1,364,649
CY 2022	33,921,230	$0.0201	$682,325
CY2023	33,921,230	$0.0000	$0
Total Subsidy:			$10,234,869
*Subsidy decreased evenly over 5 years			
Avoided Cost Credit set annually by PUC in a similar protocol as LEAC			
All excessed credits trued up at the end of each year			

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

Issues for Decision

Resolution No. 2018-18:

RELATIVE TO THE APPROVAL OF THE CREATION OF THE ADVANCED METER INFRASTRUCTURE (AMI) TECHNICIAN SERIES OF POSITIONS

What is the project's objective and is it necessary and urgent?
The installation and utilization of GPA's advanced meter infrastructure (AMI) beginning in 2011, including smart meters, significantly changed the Authority's processes and structure. Current employees holding Meter Reader and Customer Service Electrician series positions are performing AMI or other work generally unrelated to their position titles. The Authority seeks to create new positions, abolish unnecessary positions, and eliminate overlap of similar functions in order to gain efficiencies and reflect its current processes and structure.

Where is it at?
The AMI Technician series will be initially utilized by Customer Service, PSCC, and Meter Shop but may be used by other divisions. The Meter Reader and Customer Service Electrician series recommended for abolishment are under the Customer Service division organizational structure.

How much will it cost?
The reorganization is not expected to exceed the current budget.

When will it be completed?
No later than October 28, 2018

What is its funding source?
Revenue funds.

The RFP/BID responses:
Not applicable.

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

Resolution No. 2018-18

RELATIVE TO THE APPROVAL OF THE CREATION OF THE ADVANCED METER INFRASTRUCTURE (AMI) TECHNICIAN SERIES OF POSITIONS

WHEREAS, under 12 G.C.A. § 8104, the Consolidated Commission on Utilities ("CCU") has plenary authority over financial, contractual and policy matters relative to the Guam Power Authority; and

WHEREAS, the Guam Power Authority ("GPA") is a Public Corporation established and existing under the laws of Guam; and

WHEREAS, the GPA General Manager requests the CCU to approve the creation of the Advanced Meter Infrastructure ("AMI") Technician series positions (Exhibit A); and

WHEREAS, the GPA General Manager requests the CCU to approve the classification standards of the AMI Technician series positions in the classified status; and

WHEREAS, the GPA General Manager requests the CCU to abolish the Meter Reader and Customer Service Electrician series of positions; and

WHEREAS, Public Law 28-112 and 4 G.C.A. § 6303(d) authorizes the creation of positions in Autonomous Agencies and Public Corporations; and

WHEREAS, GPA Personnel Rules & Regulations as amended by Public Law 28-159 authorizes the CCU to amend, modify or add a position to the list of certified, technical and professional positions; and

WHEREAS, regulatory notification requirements have been satisfied and GPA continues to conduct outreach with potentially affected employees.

NOW, THEREFORE, BE IT RESOLVED, the Consolidated Commission on Utilities, as the Governing Body of the Guam Power Authority, does hereby approve and authorize the following**:**

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The creation and the job classification standards for the AMI Technician series of positions in the classified status are hereby approved and attached herein as Exhibit A.
3. The AMI Technician series of positions are hereby added to the Certified, Technical and Professional list of positions at GPA.
4. The Meter Reader and Customer Service Electrician series are hereby abolished and removed from the Certified, Technical and Professional list of positions at GPA effective October 28, 2018.
5. The authorization of the AMI Technician series of positions shall become effective September 29, 2018.

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

DULY AND REGULARLY ADOPTED AND APPROVED THIS 28th DAY OF AUGUST 2018.

Certified by:	Attested by:
_____	_____
JOSEPH T. DUENAS	**J. GEORGE BAMBA**
Chairperson	Secretary
Consolidated Commission on Utilities	Consolidated Commission on Utilities

SECRETARY'S CERTIFICATE

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

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

Ayes: _____

Nays: _____

Absent: _____

Abstain: _____

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUAHAN
P.O.BOX 2977 • HAGÅTÑA, GUAM U.S.A. 96932-2977

STAFF REPORT

REQUEST:

The General Manager of the Guam Power Authority petitions the Consolidated Commission on Utilities (CCU) to create the following positions in the classified service pursuant to Public Law 28-112:

- AMI Technician (Proposed Creation)
- AMI Technician Leader (Proposed Creation)

AUTHORITY:

Public Law 28-159, Section 3(c) Amendment of Certified, Technical, and Professional Positions. Section 9, 4 GCA §6303 (d) states:

"Creation of positions in the Autonomous Agencies and Public Corporations.

(1) The petition of the head of an agency, department or public corporation listed in the first paragraph of 4 GCA §4105(a) of this Title to create a position shall include:

A. the justification for the new and amended positions;

Creation of the AMI Technician positions and amendment to the existing Meter Electrician series of positions are critical towards the Authority's vision of efficiency and system reliability in the transformation of Smart Grid initiatives that has modernize our Island Wide Power System. Although, Smart Grid is a cornerstone of GPA's transformation, GPA replaced many of its old analog meters with digital smart meters for both residential and commercial customers. GPA is now able fulfill remote service connection and disconnection orders in a matter of hours instead of days.

B. the essential details concerning the creation of the position; (see classification review below)

C. an analysis of the similarities and differences between the position to be created and positions listed pursuant to Title 4 GCA §4101.1.(d);

The Smart Grid is a digitally-enhanced network that uses computer-based remote control and automation to increase the efficiency of the Authority's Island-Wide Power System (IWPS). Smart meters employ two-way radio communication technology and computer processing. This allows GPA to read meters remotely, start and stop meters remotely, receive outage alert notifications and monitor power quality. The duties and responsibilities associated with the AMI Technician positions is to ensure accurate day-to-day monitoring, analysis and control of the Command Center, which is the head end of the AMI network. The major function of the AMI Command Center Supervisor is to oversee the monitoring the AMI Command Center and determine appropriate courses of action; coordinates with the Internal Audit's Revenue Protection Section, Power System Control Center (PSCC), and other divisions regarding network issues, meter investigation, metering failure and tampering issues. These positions are much needed towards the strategic goals of the Authority and fulfillment of its mission towards modernizing our Island Wide Power System.

D. the position description; (see attached)

E. the proposed pay ranges and demonstration of compliance with §6301 of this Title;

The GPA's compensation plan was authorized by P.L. 28-159 and approved by the CCU in October 2007. The proposed compensation is in accordance with the Strategic Pay Plan Methodology.

F. a fiscal note as that term in described in 2 GCA §9101 et seq.; and any other pertinent information.

The Guam Power Authority is responsible for the funding availability for these positions and is in compliance with all applicable laws, rules and regulations regarding the creation, filling and retention of positions in certified, technical and professional positions. The funding of these positions has no financial impact to the General Fund.

(2) The petition shall be posted on the agency, department or public corporation's website for ten (10) days (Saturdays, Sundays and government of Guam holidays excepted). After the posting, the head shall forward the petition along with evidence of his compliance with 5 GCA §6303.1(a), to the governing board or commission who, if they approve the same, shall approve the petition by resolution and file the petition and resolution for records with the Director of Administration and the Legislative Secretary.

(3) No new position may be filled until after compliance with the provision of this section and thirty (30) days has elapsed from the date of filing with the Legislative Secretary."

METHODOLOGY:

Information was gathered from various public utilities associated with the American Public Power Association (APPA) and other utilities with comparable positions within the U.S. mainland. The information collected were used to analyze and develop the proposed job standards as they apply to the work performed at GPA. The staff reviewed the duties associated with the proposed creations as indicated in the position description forms. In evaluating these positions, the Strategic Pay Job Evaluation Methodology was utilized to determine the job evaluation points based on a total of twelve (12) measurement factors; Education, Experience, Complexity, Scope of Work, Problem Solving, Freedom to Act/Supervision Received, Work Environment, Physical Demands, Impact of Discretionary Decisions, Human Relations Skills/Contact, Authority Exercised, and Supervisory/Managerial Responsibility.

CLASSIFICATION REVIEW:

In 2011, GPA embarked in a Smart Grid project towards modernizing our IWPS. GPA replaced most of its old analog meters with digital smart meters for both residential and commercial customers. Thus, resulting in the installation and utilization of advanced meter infrastructure (AMI), which includes smart meters. As a result, this significantly changed the Authority's processes and structure. GPA personnel can now communicate with meters remotely, start and stop power remotely, receive outage alert notifications and to monitor power quality. The AMI network reads and processes real time power consumption in homes and businesses on Guam and transmit data back to GPA. It's a tremendous technological change in GPA to constantly monitor electricity flow and adjust its distribution for maximum efficiency.

The AMI Command Center integrated system is currently located within the Customer Services Division and is currently supervised by a Customer Service Supervisor. The proposed AMI Technician positions will be assigned within the Customer Services Division and will be responsible for:

- Monitoring radio frequency network for all collectors, routers and meters for status with regards to network health and productivity on Command Center system.
- Monitoring Advanced Metering Infrastructure (AMI) Command Center head end system and dashboard.
- Monitoring meter and endpoint alerts on AMI dashboard (i.e. lost, not logging, tamper reverse, stuck switch, power outages).
- Performing all remote reconnects and disconnects on AMI meters for new and existing customers as well as non-payment/delinquent accounts on field activity reports and validation.
- Monitoring Meter Data Management System (MDMS).
- Performing AMI send and receive command prompts as needed.
- Processing work order requests & input data into the Customer Information System (CIS) of the Customer Care & Billing (CC&B) System.
- Monitoring outage tracking reporting and coordinates with PSCC and/or other divisions.

The impact to the implementation of Smart Grid initiatives and the replacement of analog electric meters with AMI smart meters eliminated and replaced functions in various positions within the Customer Services Division, specifically, Electric Meter Readers series and Customer Service Electrician series. This type of automation of meter reading and real-time day metering inclusive of installation, disconnection and reconnection has caused the Authority to eliminate these positions. Out of the 51,000 customers, there are only less than 30 "opt out" customers requiring manual reading of the analog meters. However, this task is very minimal and does not justify a full-time Electric Meter Reader to perform this task. Manual meter reading, meter installation, removal and troubleshooting tasks have been absorbed into duties of Meter Electrician series with the Authority's Meter Shop section.

Based on the proposed job standards for the AMI Technician and Leader positions, the nature of work and minimum experience and training consist of:

AMI Technician:

This positions are responsible for assisting with and supporting the day-to-day monitoring, analysis and control of the Command Center for the Advanced Metering Infrastructure (AMI) operations and Radio Frequency (RF) networking for the Guam Power Authority. The proposed position requires:

1) One (1) year experience in Advanced Metering Infrastructure (AMI) dashboard alerts and endpoint status monitoring and graduation from high school or GED equivalency; or
2) Any equivalent combination of experience and training which provides the minimum knowledge, abilities and skills.

AMI Technician Leader:

This position leads and supports the day-to-day monitoring, analysis and control of the Command Center for the Advanced Metering Infrastructure (AMI) operations and Radio Frequency (RF) networking for the Guam Power Authority. The proposed position requires:

1) Four (4) years of experience in Advanced Metering Infrastructure (AMI) dashboard alerts and endpoint status monitoring and graduation from high school or GED equivalency; or
2) Any equivalent combination of experience and training which provides the minimum knowledge, abilities and skills.

RECOMMENDATION:

1) To approve the creation of the following positions in the classified service and add these positions to list of the certified, technical and professionals (CTP) category of positions:

   - AMI Technician
   - AMI Technician Leader

The proposed minimum and maximum range of compensation will be in accordance with the Strategic Pay Methodology, as follows:

2017 MARKET DATA (15th Market Percentile)	JE Points	Structural Adjustment - MIN				Structural Adjustment - MAX			
		Base Salary	Grade	Step	Sub Step	Base Salary	Grade	Step	Sub Step
AMI Technician	414	32,706	F	4	C	34,034	F	5	C
AMI Technician Leader	640	46,933	J	4	B	48,839	J	5	B

2) To abolish and remove the following positions from GPA's list of positions:

   - Electric Meter Reader I
   - Electric Meter Reader II
   - Electric Meter Reader Leader
   - Electric Meter Reader Supervisor
   - Customer Service Electrician I
   - Customer Service Electrician II
   - Customer Service Electrician Leader
   - Customer Service Electrician Supervisor

Prepared by:

SANDRA D. PEREZ
Personnel Services Administrator (A)

Concurred by:

BEATRICE P. LIMTIACO
Assistant General Manager, Administration

Approved by:

JOHN M. BENAVENTE, P.E.
General Manager

00.000

AMI Technician (Proposed)

NATURE OF WORK IN THIS CLASS:

This position is responsible for assisting with and supporting the day-to-day monitoring, analysis and control of the Command Center for the Advanced Metering Infrastructure (AMI) operations and Radio Frequency (RF) networking for the Guam Power Authority.

ILLUSTRATIVE EXAMPLES OF WORK: *(Any one position may not include all the duties listed, nor do the examples cover all the duties which may be performed.)*

Monitors the dashboard system for status of AMI meters, radio frequency (RF) connectivity and outage tracking.

Performs remote connections/disconnections for 2s and 12s smart meters for move-in/move-out customers as well as delinquent accounts.

Sends and receives various commands, e.g. On Demand Reads (ODR) as needed to AMI meters and RF network for operations and troubleshooting.

Enters latitude/longitude, service location ID, date and time of installation, customer information file (customer ID, billing cycle, book number) on spreadsheet and provide to IT for import to update records in Command Center.

Validates and reviews field activity work order for successful completion on Command Center and Customer Information System (CIS).

Coordinates customer inquiries for meter troubleshooting.

Assists in conducting AMI meter investigations for non-responding meters and makes proper repairs using meter software application programs.

Prepares documents for field investigations, energy surveys, and meter testing (i.e. interval data, consumption load break down, snap shots, and readings).

Monitor unscheduled power outages and report locations to the Power System Control Center (PSCC) and/or other departments.

Performs other related duties as required.

MINIMUM KNOWLEDGE, ABILITIES AND SKILLS:

Knowledge of Landis+Gyr Command Center applications.

Knowledge of 132Comm, End Point Test Manager (ETM) and radio shop software applications.

Knowledge of optical probes utilized to obtain data directly from smart meters.

Knowledge of the customer information system.

Knowledge of the different AMI meter types and forms including GPA legacy meter types and forms.

EXHIBIT A

Knowledge of AMI Network operations and Radio Frequency (RF) Networking.

Ability to make arithmetic computations.

Ability to work effectively with the public and employees.

Ability to follow oral and written instructions.

Ability to maintain records and prepare reports.

Ability to interpret and apply pertinent laws, rules, regulations and other program guidelines.

Ability to lean and apply computer system application utilized by the utility, to include but not limited to Landis+Gyr Command Center; MeterSense MDMS; Customer Care & Billing (CC&B); and JD Edwards.

Skill in the safe operation of a motor vehicle.

MINIMUM EXPERIENCE AND TRAINING:

1) One (1) year experience in Advanced Metering Infrastructure (AMI) dashboard alerts and endpoint status monitoring and graduation from high school or GED equivalency; or

2) Any equivalent combination of experience and training which provides the minimum knowledge, abilities and skills.

NECESSARY SPECIAL QUALIFICATION:

Possession of a valid driver's license may be required.

Established:

_____
JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities

EXHIBIT A

00.000

AMI Technician Leader (Proposed)

NATURE OF WORK IN THIS CLASS:

This position leads and supports the day-to-day monitoring, analysis and control of the Command Center for the Advanced Metering Infrastructure (AMI) operations and Radio Frequency (RF) networking for the Guam Power Authority.

ILLUSTRATIVE EXAMPLES OF WORK: *(Any one position may not include all the duties listed, nor do the examples cover all the duties which may be performed.)*

Leads in the monitoring of the dashboard system for status of AMI meters, radio frequency (RF) connectivity and outage tracking.

Leads in remote connections/disconnections for 2s and 12s smart meters for move-in/move-out customers as well as delinquent accounts.

Leads in sending and receiving of various commands, e.g. On Demand Reads (ODR) as needed to AMI meters and RF network for operations and troubleshooting.

Enters latitude/longitude, service location ID, date and time of installation, customer information file (customer ID, billing cycle, book number) on spreadsheet and provide to IT for import to update records in Command Center.

Leads in validating and reviewing field activity work orders for successful completion on Command Center and Customer Information System (CIS).

Coordinates customer inquiries for meter troubleshooting.

Leads in the preparation of documents for field investigations, energy surveys, and meter testing (i.e. interval data, consumption load break down, snap shots, and readings).

Leads in monitoring of unscheduled power outages and report locations to the Power System Control Center (PSCC) and/or other departments.

Performs other related duties as required.

MINIMUM KNOWLEDGE, ABILITIES AND SKILLS:

Knowledge of Landis+Gyr Command Center applications.

Knowledge of 132Comm, End Point Test Manager (ETM) and radio shop software applications.

Knowledge of optical probes utilized to obtain data directly from smart meters.

Knowledge of the customer information system.

Knowledge of different AMI meter types and forms including GPA legacy meter types and forms.

Knowledge of AMI Network operations and Radio Frequency (RF) Networking.

EXHIBIT A

Ability to lead the work of others.

Ability to make arithmetic computations.

Ability to work effectively with the public and employees.

Ability to follow oral and written instructions.

Ability to maintain records and prepare reports.

Ability to interpret and apply pertinent laws, rules, regulations and other program guidelines.

Ability to lean and apply computer system application utilized by the utility, to include but not limited to Landis+Gyr Command Center; MeterSense MDMS; Customer Care & Billing (CC&B); and JD Edwards.

Skill in the safe operation of a motor vehicle.

MINIMUM EXPERIENCE AND TRAINING:

1) Four (4) years of experience in Advanced Metering Infrastructure (AMI) dashboard alerts and endpoint status monitoring, and graduation from high school or GED equivalency; or

2) Any equivalent combination of experience and training which provides the minimum knowledge, abilities and skills.

NECESSARY SPECIAL QUALIFICATION:

Possession of a valid driver's license may be required.

Established:

_____
JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities

EXHIBIT A

POSITION DESCRIPTION QUESTIONNAIRE INSTRUCTIONS

WHO SHOULD COMPLETE THE QUESTIONNAIRE?

(1) The employee occupying the position (jobholder) completes the first six (I-VI) sections of the questionnaire.

(2) The employee completes Section VII if he/she chooses to do so. If the employee decides not to complete Section VII, mark the box provided. The direct supervisor will then complete Section VII for the employee.

(3) The direct supervisor completes Section VIII. It is to add or clarify any of the information provided by the employee/jobholder or to provide different information.

(4) The direct supervisor completes the questionnaire for vacant positions.

(5) Section IX is completed by the Human Resources Office.

(6) The completed questionnaire is subject to post-audit by the Civil Service Commission.

I. JOB IDENTIFICATION:

Position Title: Show the official (payroll) title only.

Official Position No.: Show the official number provided in the staffing pattern for the job. Although the employee/jobholder may change from time to time, the position number does not change. It is a position management tool.

Job Location: Show the exact location of the position within the organization.

Direct Supervisor: Show the official position title and name of supervisor or manager to whom the jobholder must report.

II. JOB DESCRIPTION:

ESSENTIAL FUNCTIONS: These are the required job duties of the position that a qualified person must perform. Under the Americans with Disability Act, the duties are performed either with or without a "reasonable accommodation." Without one of the essential functions, the need for the job is changed.

The description of functions performed must be short, clear and correct. It should tell what is done and its purpose or why. It should not tell how it is done. The duties are specific. Do not use unclear, general statements. Do not use additional papers.

Organize and list the job functions in one of the formats selected below. Mark the format selected. The format selected is only for the purpose of organizing the description of the job. It will not determine the job's classification and pay.

(1) Daily work assignments – proper for job functions that are repetitive and have specific work operations and procedures. List the functions beginning with the first daily work assignment and ending with the last work assignment.

(2) Percentage of time – proper for jobs that have varied functions and responsibilities. List the functions by percentage of time spent, beginning with the highest percentage. The total % should equal 100%.

(3) Order of importance – proper for job functions that provide levels of importance. List the functions beginning with the most important function and ending with the least important. All functions are performed, however.

NONESSENTIAL FUNCTIONS: Nonessential functions are tasks that are minor, or not required to the completion of the essential functions. In addition, nonessential functions are those that could be performed by other workers. The phrase, "performs related duties as assigned" is normally listed here.

III. MINIMUM QUALIFICATION REQUIREMENTS:

These are the minimum requirements needed to qualify for the job. They are necessary for satisfactory performance of the job's essential functions. It is not to show the employee's (jobholder's) qualifications. They are used further in the job analysis necessary for the creation of position classification standards.

Experience – Show the type and length (months or years) of experience needed by a qualified applicant to perform the essential functions of the job.

Education – Show the formal schooling or training required for a qualified applicant to perform the essential functions of the job.

EXHIBIT A

Revised: 05/97 Class Code

POSITION DESCRIPTION QUESTIONNAIRE

I. IDENTIFICATION

Official Position Title: **AMI TECHNICIAN LEADER** Official Position No.:

Job Location: Guam Power Authority (Department/Agency) Customer Services (Division) (Section/Unit)

Name: _____ (Last) (First) (Middle Initial)

Pay Grade: [X] Classified [ ] Unclassified [ ] Position Vacant

Supervisor: (Name of Direct Supervisor) Title of Supervisor

II. DESCRIPTION OF DUTIES

Duty NO. or % of Time	
	ESSENTIAL FUNCTIONS: Organize and list duties and responsibilities that **MUST** be performed. List duties in one of the formats below. (1) The daily work assignments, beginning with the first duty and ending with the last duty for the day. (2) Percentage of time and show % for each (total % equals 100%). (3) Order of importance, beginning with the most important. Mark (√ or X) one format only: [ ] (1), [ ] (2), [X] (3)
	AMI OPERATIONS/RF NETWORKING: Leads and assist personnel in day to day operations related to collector status. Perform Collector connectivity tests/ping. Prepare for remote disconnection and reconnection on command center. Send command via command center and record. Respond to client safety alerts for reconnection of customers properly. Validate field activity work order for successful completion on Command Center and CIS.; Monitor meter and endpoint alerts on AMI dashboard (i.e. lost, not logging, tamper reverse, stuck switch, power outages); Prepare documents for field investigations, energy audits, and meter testing (i.e. interval data, consumption load break down, snap shots, and readings); Monitor all reporting associated with network connectivity and meter data. Review and analyze daily midnight reads, interval data, meter history, event logs for irregularities and voltage quality; Assist with meter inquiries from all divisions; Monitor and update meter group types and user defined group; Edit and update smart meter information on command center (i.e. service address, latitude/longitude location, billing cycles, and book numbers); Monitor for unscheduled power outages and report locations to PSCC and/or other departments.
	CUSTOMER SERVICE DUTIES: Interacting and assisting customers on a daily basis regarding their power bill inquiries, while in the office or out on the field. Whether in person or by phone. Perform various task with CIS system. Assist business office personnel with manpower augmentation when needed. Complete and lock all daily customer work order requests for commercial, residential, and government accounts to include same day services. Process and lock AMI meter exchange, AMI meter investigations and Emergency work clearance work orders. Create work orders on CIS system when necessary and submit to proper departments. Provide excellent customer service when dealing with customers directly or by phone. Provide good customer relations by providing customers the knowledge to understand the operations, advantages, and benefits of the smart meter. program.
	ADMINISTRATIVE: Performs as auxiliary payroll time entry clerk for personnel. Performs vehicle time entry and monitors vehicle preventive maintenance schedules. Prepares weekly rotational work schedule for approval. Performs account billing adjustments related to error reads and work order completions.
	NON-ESSENTIAL OR ADDITIONAL FUNCTIONS: List duties and responsibilities not listed above that **may be** performed, as assigned.
	Assist other divisions on providing information on customer accounts, locations, readings etc.

	Assist various sections throughout in the monitoring of the AMI real time outage tracker during pre-and post-storm restorations.
	Conduct preventive maintenance on all assigned vehicles.
	Follow all departmental rules and policies.
	Perform good housekeeping.

III. CONTACTS: Departments, agencies and individuals you deal with during the course of your daily activities.

A. Within your department / agency. Mark (X or √) one box:

[ ] None [ ] Up to 15% of total working hours

[ ] 15 – 50% of total working hours [X] Over 50%

B. Outside your department / agency. Mark (X or √)

[ ] None [ ] Up to 15% of total working hours

[ ] 15 – 50% of total working hours [X] Over 50%

IV. SUPERVISION RECEIVED: How closely is the employee's/jobholder's work reviewed by the direct supervisor? Mark (X or √) one correct response.

[ ]	Detailed and specific instructions / procedures received or followed for each assignment.
[ ]	General Supervision – Routine duties are performed with minimal supervision. Standard practices or procedures allow employee to function alone at routine work. Supervisor makes occasional check of work while in progress. Work is reviewed upon completion.
[X]	Direction – Receives guidance about general objectives in most of the tasks and projects assigned; determines methods, work sequence, scheduling and how to achieve objectives of assignments; operates within policy guidelines. (Generally applicable to skilled professionals, supervisors and managers.)
[ ]	General Direction – Receives very general guidance about overall objectives; work is usually quite independent of others; operates within division or department policy guidelines, using independent judgment in achieving assigned objectives. (Generally applicable to managers / administrators in large and complex organizations and to department / agency heads and their first assistants.)

V. SUPERVISION EXERCISED: The employee/jobholder supervises other employees. List the number of employees supervised, their position titles, and a brief description of their responsibilities.

Number Supervised	Position Title	Description of Responsibilities

VI. EQUIPMENT: List the equipment (pickup truck, welder, crane, etc.), office machines (word processor, calculator, copying machine, etc.), or any other machines, tools or devices that are used on a regular and continuing basis. Show what percentage of the regular workday is spent using each.

TOOLS / EQUIPMENT	PERCENT (%) OF TIME FOR EACH
Desk Top Computer	35
Lap Top Computer	15
Printer/ Copier Machine	2
Calculator	2
Shoretel Telephone	1
Push To Talk Radio	1
Optical Probe	10
Thermal Tester	1
Integrated Wan Radio (IWR)	5
Volt Meter	5
Various Personal Protective Equipment (PPE)	5
Government Official Vehicle	15

VII. JOB REQUIREMENTS

[ ] Mark (√ or X) here if jobholder is unable to complete this section. The direct supervisor will then complete this section for the jobholder.

A. MINIMUM QUALIFICATION REQUIREMENTS: List the minimum experience and training a qualified applicant must have before employment.

1. WORK EXPERIENCE: List the general, specialized and/or supervisory / management work experience needed and how much (in months and/or years). If none, mark (√ or X) "No work experience required."	
[ ] No work experience is required.	
Computer Knowledge**:** Demonstrated ability with regard to computer skills, including excellent word processing capabilities, proficiency with e-mail and internet applications and data base applications and experience using programs such as (for example: MS Word, Access and Excel).	
Analytical Thinking Skills**:** Proven ability to work in complex frameworks, analyze and prioritize elevated levels of information and convert ideas and objectives into actions. Problem Solving Skills: Ability to appropriately prioritize problems, gather and analyze the right information to identify symptoms and causes and identify the right people to involve reaching better conclusions.	
Specialized: Advanced Metering Infrastructure and Radio Frequency network/meter/router/collector; Radio Shop, Command Center, and Endpoint Test Management (ETM) advance operations training by Landis & Gyr.	
Semi-skilled in the electrical trade or equivalent.	
Four (4) years of experience in Advanced Metering Infrastructure (AMI) dashboard alerts and endpoint status monitoring and graduation from high school or GED equivalency; or Any equivalent combination of experience and training which provides the minimum knowledge, abilities and skills.	
Supervisor / Management:	
If no work experience is required, list the knowledge, abilities and skills a qualified applicant needs before employment to perform the essential job functions.	

2. FORMAL EDUCATION OR TRAINING: Mark (√ or X) the **most** applicable education level required.
a. [ ] Below High School – Show Number of Years
b. [X] High School Graduation / GED

c. [ ] Vocational / Technical School

Show specific training that is required by this position.

Advanced Metering Infrastructure and Radio Frequency Networking.

Knowledge and training of Customer information systems related

d. [ ] Some College

Show number of [ ] Semester Hours _____ or [ ] Quarter Hours _____.

Show specific courses required by the essential functions of this job.

e. College Degree (Show major area of study required.)

[ ] Associate's : _____

[ ] Bachelor's: _____

[ ] Master's: _____

[ ] Beyond Masters: _____

3. CRITICAL SKILLS / EXPERTISE: List specialized skills or specialization needed to perform essential functions.

Advanced Metering Infrastructure Operations and Radio Frequency networking.

4. LICENSE, REGISTRATION OR CERTIFICATION:
List possession of required license, professional registration/certification needed to perform essential functions.

B. MENTAL / VISUAL, PHYSICAL, AND ENVIRONMENTAL JOB REQUIREMENTS:

1. Mark (√ or X) the most appropriate physical requirement(s) for the job.

[X]	Sitting	The job requires the employee to sit in a comfortable position most of the time. The employee can move about.
[X]	Sitting	Employee is required to sit for extended periods or time without being able to leave the work area.
[X]	Sitting/Standing/Walking	The employee is required to sit, stand, and walk most of the time.
[X]	Climbing	Employee is required to climb ladders or scaffolding or to climb and work in overhead areas.
[X]	Lifting	Employee is required to raise or lower objects from one level to another regularly.
[X]	Pulling and/or Pushing	The job requires exerting force up to _____ pounds on a regular basis to move

		the object to or away from the employee.
[X]	Carrying	The employee is required, on a regular basis, to carry objects in his or her arms or on the shoulder(s).
[X]	Reaching	The employee is regularly required to use the hands and arms to reach for objects.
[X]	Stooping and Crouching	The employee is regularly required to bend forward by bending at the waist or by bending legs and spine.
[X]	Crawling	Employee is required to work in a confined space and/or to crawl and move about on his or her hands and knees.
[X]	Speaking	The job requires expressing ideas by the spoken word.
[X]	Listening	The job requires the perception of speech or the nature of sounds in the air.
[ ]	Other	Describe the requirement.

_____

_____

_____

2. Mark (√ or X) the most appropriate mental / visual requirement for the job.

[X] General Intelligence (typical requirement for machine operators, office staff, etc.)

[ ] Motor Coordination Skills (typical for automotive mechanic, painter, etc.)

[X] Coordination of Eyes, Hands, and Feet (typical for tractor trailer driver, fire fighter, line electrician, etc.)

[X] Verbal Intelligence (typical for counselors, customer service representatives, etc.)

[ ] Numerical Intelligence (typical for an accounting clerk, cargo checker, etc.)

[ ] Other:

_____

_____

_____

3. The job's most appropriate work environment and the weather exposure.

Show what percent of a typical workday is spent.
(Select one response only)

__60_% Indoors in a comfortable temperature-controlled environment (for instance, in an office).

__5_% Indoors in a non-temperature-controlled environment (such as an open garage, storerooms and warehouses, etc.)

__10_% Outdoors exposed to changing weather conditions (for instance, rain, sun, wind, etc.)

__25_% Outdoors but in an enclosed vehicle protected from extreme weather conditions.

4. Other physical working conditions

[ ] Mark (X or √) if none of the following is applicable.

Show what percent of a typical workday this position is exposed to:

_5_% Air contamination (i.e., dust, fumes, smoke, toxic conditions, disagreeable odors).

_____% Vibration (i.e., operating jackhammer, impact wrench).

__5_% Noise (Exposure at a level enough to cause bearing loss or fatigue).

_____% An improperly illuminated or awkward and confining work space.

_ 5_% Working above ground level where the chance of falling exists (i.e., on ladders, rooftops, bucket trucks, scaffolding).

__10_% Lifting or carrying items or objects. Describe item/object and weight:

_____

_____

__25_% Heat. Describe source and degree of high temperature.

Outdoors Temperatures

_____

_____

__25_% Cold. Describe source and degree of cold temperature: Indoor Office Temperatures

_____

_____

_ 25_% Other hazards. Describe:

Electrical, Extreme Weather, and Vicious Animals

_____

_____

5. Describe the working conditions that are irregular or unusual for the job and show frequency of exposure.

[ ] Mark (X or √) if not applicable.

CONDITION	FREQUENCY OF EXPOSURE

C. Work Schedule/Hours – Mark (√ or X) the most appropriate work schedule/hours for the job.

[ ] Regular – Standard Eight (8) hours daily, Monday – Friday
[ ] Irregular – Shift work – A 24-hour work operation.
[X] Regular / Irregular – Overtime hours with overtime pay entitlement

State Purpose and Total Hours required per pay period:

40 hours a week and overtime if required in an event of non-communication issues or other issues pertaining to a smart meter and or command center and emergency situations.

The information given on this position is complete and correct.

_____ _____

Signature of Employee Date

VIII. SUPERVISOR'S REVIEW

IMPORTANT: This Block to Be Filled Out Only By The Direct Supervisor

a.	(1)	Has the employee correctly stated his or her official payroll position title? [ ] Yes] No
	(2)	If not, what is the correct title? _____
b.	(1)	Are the employee's statements about the duties of his/her position and the supplementary information complete and accurate? [ ] Yes [ ] No
	(2)	If not, what additions, deletions or corrections should be made? (Refer to block and page) _____ _____ _____
c.		What positions under your supervision perform the same essential functions Give name and title: Name Title _____ _____ _____
d.		Does this position require (mark one) [ ] Immediate supervision on a regular basis, [ ] Immediate supervision only for new/complex tasks, or [ ] Little immediate supervision.
e.		Does the employee participate in (mark those appropriate) the [ ] Formulation, [ ] Interpretation, and/or [ ] Application of Agency/Department policy. Give examples: _____ _____ _____
f.		The employee (mark one) [ ] Performs routine, well-defined tasks, [ ] Performs moderately complex tasks requiring moderate knowledge of Agency's/Department's work; or [ ] Performs complex tasks requiring extensive knowledge of Agency's/Department's work.

I certify to the accuracy of the description of duties, responsibilities and organizational relationships provided herein; further, that the position is necessary to carry out government functions for which I am responsible. This certification is made with the knowledge that this information is to be used for statutory purposes on the use of public funds. The false or misleading statement may constitute violations of such statutes or their implementing regulations.

X _____

Beatrice P. Limtiaco
Assistant General Manager, Administration

IX.

Human Resources Office Review:

Date: _____

Reviewed by: _____ _____
Position Title Name

Classification Correct: [ ] Yes [ ] No

If not, corrective action taken: (Attach copy of review made)

Approved by: _____ _____
Personnel Services Administrator Date

Civil Service Commission Post-Audit:

Date: _____

Reviewed by: _____ _____
Position Title Name

Classification Correct: [ ] Yes [ ] No

If not, corrective action taken: (Attach copy of review made)

POSITION DESCRIPTION QUESTIONNAIRE INSTRUCTIONS

WHO SHOULD COMPLETE THE QUESTIONNAIRE?

(1) The employee occupying the position (jobholder) completes the first six (I-VI) sections of the questionnaire.

(2) The employee completes Section VII if he/she chooses to do so. If the employee decides not to complete Section VII, mark the box provided. The direct supervisor will then complete Section VII for the employee.

(3) The direct supervisor completes Section VIII. It is to add or clarify any of the information provided by the employee/jobholder or to provide different information.

(4) The direct supervisor completes the questionnaire for vacant positions.

(5) Section IX is completed by the Human Resources Office.

(6) The completed questionnaire is subject to post-audit by the Civil Service Commission.

I. JOB IDENTIFICATION:

Position Title: Show the official (payroll) title only.

Official Position No.: Show the official number provided in the staffing pattern for the job. Although the employee/jobholder may change from time to time, the position number does not change. It is a position management tool.

Job Location: Show the exact location of the position within the organization.

Direct Supervisor: Show the official position title and name of supervisor or manager to whom the jobholder must report.

II. JOB DESCRIPTION:

ESSENTIAL FUNCTIONS: These are the required job duties of the position that a qualified person must perform. Under the Americans with Disability Act, the duties are performed either with or without a "reasonable accommodation." Without one of the essential functions, the need for the job is changed.

The description of functions performed must be short, clear and correct. It should tell what is done and its purpose or why. It should not tell how it is done. The duties are specific. Do not use unclear, general statements. Do not use additional papers.

Organize and list the job functions in one of the formats selected below. Mark the format selected. The format selected is only for the purpose of organizing the description of the job. It will not determine the job's classification and pay.

(1) Daily work assignments – proper for job functions that are repetitive and have specific work operations and procedures. List the functions beginning with the first daily work assignment and ending with the last work assignment.

(2) Percentage of time – proper for jobs that have varied functions and responsibilities. List the functions by percentage of time spent, beginning with the highest percentage. The total % should equal 100%.

(3) Order of importance – proper for job functions that provide levels of importance. List the functions beginning with the most important function and ending with the least important. All functions are performed, however.

NONESSENTIAL FUNCTIONS: Nonessential functions are tasks that are minor, or not required to the completion of the essential functions. In addition, nonessential functions are those that could be performed by other workers. The phrase, "performs related duties as assigned" is normally listed here.

III. MINIMUM QUALIFICATION REQUIREMENTS:

These are the minimum requirements needed to qualify for the job. They are necessary for satisfactory performance of the job's essential functions. It is not to show the employee's (jobholder's) qualifications. They are used further in the job analysis necessary for the creation of position classification standards.

Experience – Show the type and length (months or years) of experience needed by a qualified applicant to perform the essential functions of the job.

Education – Show the formal schooling or training required for a qualified applicant to perform the essential functions of the job.

EXHIBIT A

Revised: 05/97 Class Code

POSITION DESCRIPTION QUESTIONNAIRE

I. IDENTIFICATION

Official Position Title: **AMI TECHNICIAN LEADER** Official Position No.:

Job Location: Guam Power Authority (Department/Agency) Customer Services (Division) (Section/Unit)

Name: _____ (Last) (First) (Middle Initial)

Pay Grade: [X] Classified [ ] Unclassified [ ] Position Vacant

Supervisor: (Name of Direct Supervisor) Title of Supervisor

II. DESCRIPTION OF DUTIES

Duty NO. or % of Time	
	ESSENTIAL FUNCTIONS: Organize and list duties and responsibilities that **MUST** be performed. List duties in one of the formats below. (1) The daily work assignments, beginning with the first duty and ending with the last duty for the day. (2) Percentage of time and show % for each (total % equals 100%). (3) Order of importance, beginning with the most important. Mark (√ or X) one format only: [ ] (1), [ ] (2), [X] (3)
	AMI OPERATIONS/RF NETWORKING: Leads and assist personnel in day to day operations related to collector status. Perform Collector connectivity tests/ping. Prepare for remote disconnection and reconnection on command center. Send command via command center and record. Respond to client safety alerts for reconnection of customers properly. Validate field activity work order for successful completion on Command Center and CIS.; Monitor meter and endpoint alerts on AMI dashboard (i.e. lost, not logging, tamper reverse, stuck switch, power outages); Prepare documents for field investigations, energy audits, and meter testing (i.e. interval data, consumption load break down, snap shots, and readings); Monitor all reporting associated with network connectivity and meter data. Review and analyze daily midnight reads, interval data, meter history, event logs for irregularities and voltage quality; Assist with meter inquiries from all divisions; Monitor and update meter group types and user defined group; Edit and update smart meter information on command center (i.e. service address, latitude/longitude location, billing cycles, and book numbers); Monitor for unscheduled power outages and report locations to PSCC and/or other departments.
	CUSTOMER SERVICE DUTIES: Interacting and assisting customers on a daily basis regarding their power bill inquiries, while in the office or out on the field. Whether in person or by phone. Perform various task with CIS system. Assist business office personnel with manpower augmentation when needed. Complete and lock all daily customer work order requests for commercial, residential, and government accounts to include same day services. Process and lock AMI meter exchange, AMI meter investigations and Emergency work clearance work orders. Create work orders on CIS system when necessary and submit to proper departments. Provide excellent customer service when dealing with customers directly or by phone. Provide good customer relations by providing customers the knowledge to understand the operations, advantages, and benefits of the smart meter. program.
	ADMINISTRATIVE: Performs as auxiliary payroll time entry clerk for personnel. Performs vehicle time entry and monitors vehicle preventive maintenance schedules. Prepares weekly rotational work schedule for approval. Performs account billing adjustments related to error reads and work order completions.
	NON-ESSENTIAL OR ADDITIONAL FUNCTIONS: List duties and responsibilities not listed above that **may be** performed, as assigned.
	Assist other divisions on providing information on customer accounts, locations, readings etc.

	Assist various sections throughout in the monitoring of the AMI real time outage tracker during pre-and post-storm restorations.
	Conduct preventive maintenance on all assigned vehicles.
	Follow all departmental rules and policies.
	Perform good housekeeping.

III. CONTACTS: Departments, agencies and individuals you deal with during the course of your daily activities.

A. Within your department / agency. Mark (X or √) one box:

[ ] None [ ] Up to 15% of total working hours

[ ] 15 – 50% of total working hours [X] Over 50%

B. Outside your department / agency. Mark (X or √)

[ ] None [ ] Up to 15% of total working hours

[ ] 15 – 50% of total working hours [X] Over 50%

IV. SUPERVISION RECEIVED: How closely is the employee's/jobholder's work reviewed by the direct supervisor? Mark (X or √) one correct response.

[ ]	Detailed and specific instructions / procedures received or followed for each assignment.
[ ]	General Supervision – Routine duties are performed with minimal supervision. Standard practices or procedures allow employee to function alone at routine work. Supervisor makes occasional check of work while in progress. Work is reviewed upon completion.
[X]	Direction – Receives guidance about general objectives in most of the tasks and projects assigned; determines methods, work sequence, scheduling and how to achieve objectives of assignments; operates within policy guidelines. (Generally applicable to skilled professionals, supervisors and managers.)
[ ]	General Direction – Receives very general guidance about overall objectives; work is usually quite independent of others; operates within division or department policy guidelines, using independent judgment in achieving assigned objectives. (Generally applicable to managers / administrators in large and complex organizations and to department / agency heads and their first assistants.)

V. SUPERVISION EXERCISED: The employee/jobholder supervises other employees. List the number of employees supervised, their position titles, and a brief description of their responsibilities.

Number Supervised	Position Title	Description of Responsibilities

VI. EQUIPMENT: List the equipment (pickup truck, welder, crane, etc.), office machines (word processor, calculator, copying machine, etc.), or any other machines, tools or devices that are used on a regular and continuing basis. Show what percentage of the regular workday is spent using each.

TOOLS / EQUIPMENT	PERCENT (%) OF TIME FOR EACH
Desk Top Computer	35
Lap Top Computer	15
Printer/ Copier Machine	2
Calculator	2
Shoretel Telephone	1
Push To Talk Radio	1
Optical Probe	10
Thermal Tester	1
Integrated Wan Radio (IWR)	5
Volt Meter	5
Various Personal Protective Equipment (PPE)	5
Government Official Vehicle	15

VII. JOB REQUIREMENTS

[ ] Mark (√ or X) here if jobholder is unable to complete this section. The direct supervisor will then complete this section for the jobholder.

A. MINIMUM QUALIFICATION REQUIREMENTS: List the minimum experience and training a qualified applicant must have before employment.

1. WORK EXPERIENCE: List the general, specialized and/or supervisory / management work experience needed and how much (in months and/or years). If none, mark (√ or X) "No work experience required."	
[ ] No work experience is required.	
Computer Knowledge**:** Demonstrated ability with regard to computer skills, including excellent word processing capabilities, proficiency with e-mail and internet applications and data base applications and experience using programs such as (for example: MS Word, Access and Excel).	
Analytical Thinking Skills**:** Proven ability to work in complex frameworks, analyze and prioritize elevated levels of information and convert ideas and objectives into actions. Problem Solving Skills: Ability to appropriately prioritize problems, gather and analyze the right information to identify symptoms and causes and identify the right people to involve reaching better conclusions.	
Specialized: Advanced Metering Infrastructure and Radio Frequency network/meter/router/collector; Radio Shop, Command Center, and Endpoint Test Management (ETM) advance operations training by Landis & Gyr.	
Semi-skilled in the electrical trade or equivalent.	
Four (4) years of experience in Advanced Metering Infrastructure (AMI) dashboard alerts and endpoint status monitoring and graduation from high school or GED equivalency; or Any equivalent combination of experience and training which provides the minimum knowledge, abilities and skills.	
Supervisor / Management:	
If no work experience is required, list the knowledge, abilities and skills a qualified applicant needs before employment to perform the essential job functions.	

2. FORMAL EDUCATION OR TRAINING: Mark (√ or X) the **most** applicable education level required.
a. [ ] Below High School – Show Number of Years
b. [X] High School Graduation / GED

c. [ ] Vocational / Technical School

Show specific training that is required by this position.

Advanced Metering Infrastructure and Radio Frequency Networking.

Knowledge and training of Customer information systems related

d. [ ] Some College

Show number of [ ] Semester Hours _____ or [ ] Quarter Hours _____.

Show specific courses required by the essential functions of this job.

e. College Degree (Show major area of study required.)

[ ] Associate's : _____

[ ] Bachelor's: _____

[ ] Master's: _____

[ ] Beyond Masters: _____

3. CRITICAL SKILLS / EXPERTISE: List specialized skills or specialization needed to perform essential functions.

Advanced Metering Infrastructure Operations and Radio Frequency networking.

4. LICENSE, REGISTRATION OR CERTIFICATION:
List possession of required license, professional registration/certification needed to perform essential functions.

B. MENTAL / VISUAL, PHYSICAL, AND ENVIRONMENTAL JOB REQUIREMENTS:

1. Mark (√ or X) the most appropriate physical requirement(s) for the job.

[X]	Sitting	The job requires the employee to sit in a comfortable position most of the time. The employee can move about.
[X]	Sitting	Employee is required to sit for extended periods or time without being able to leave the work area.
[X]	Sitting/Standing/Walking	The employee is required to sit, stand, and walk most of the time.
[X]	Climbing	Employee is required to climb ladders or scaffolding or to climb and work in overhead areas.
[X]	Lifting	Employee is required to raise or lower objects from one level to another regularly.
[X]	Pulling and/or Pushing	The job requires exerting force up to _____ pounds on a regular basis to move

		the object to or away from the employee.
[X]	Carrying	The employee is required, on a regular basis, to carry objects in his or her arms or on the shoulder(s).
[X]	Reaching	The employee is regularly required to use the hands and arms to reach for objects.
[X]	Stooping and Crouching	The employee is regularly required to bend forward by bending at the waist or by bending legs and spine.
[X]	Crawling	Employee is required to work in a confined space and/or to crawl and move about on his or her hands and knees.
[X]	Speaking	The job requires expressing ideas by the spoken word.
[X]	Listening	The job requires the perception of speech or the nature of sounds in the air.
[ ]	Other	Describe the requirement.

_____

_____

_____

2. Mark (√ or X) the most appropriate mental / visual requirement for the job.

[X] General Intelligence (typical requirement for machine operators, office staff, etc.)

[ ] Motor Coordination Skills (typical for automotive mechanic, painter, etc.)

[X] Coordination of Eyes, Hands, and Feet (typical for tractor trailer driver, fire fighter, line electrician, etc.)

[X] Verbal Intelligence (typical for counselors, customer service representatives, etc.)

[ ] Numerical Intelligence (typical for an accounting clerk, cargo checker, etc.)

[ ] Other:

_____

_____

_____

3. The job's most appropriate work environment and the weather exposure.

Show what percent of a typical workday is spent.
(Select one response only)

__60_% Indoors in a comfortable temperature-controlled environment (for instance, in an office).

__5_% Indoors in a non-temperature-controlled environment (such as an open garage, storerooms and warehouses, etc.)

__10_% Outdoors exposed to changing weather conditions (for instance, rain, sun, wind, etc.)

__25_% Outdoors but in an enclosed vehicle protected from extreme weather conditions.

4. Other physical working conditions

[ ] Mark (X or √) if none of the following is applicable.

Show what percent of a typical workday this position is exposed to:

_5_% Air contamination (i.e., dust, fumes, smoke, toxic conditions, disagreeable odors).

_____% Vibration (i.e., operating jackhammer, impact wrench).

__5_% Noise (Exposure at a level enough to cause bearing loss or fatigue).

_____% An improperly illuminated or awkward and confining work space.

_ 5_% Working above ground level where the chance of falling exists (i.e., on ladders, rooftops, bucket trucks, scaffolding).

__10_% Lifting or carrying items or objects. Describe item/object and weight:

_____

_____

__25_% Heat. Describe source and degree of high temperature.

Outdoors Temperatures

_____

_____

__25_% Cold. Describe source and degree of cold temperature: Indoor Office Temperatures

_____

_____

_ 25_% Other hazards. Describe:

Electrical, Extreme Weather, and Vicious Animals

_____

_____

5. Describe the working conditions that are irregular or unusual for the job and show frequency of exposure.

[ ] Mark (X or √) if not applicable.

CONDITION	FREQUENCY OF EXPOSURE

C. Work Schedule/Hours – Mark (√ or X) the most appropriate work schedule/hours for the job.

[ ] Regular – Standard Eight (8) hours daily, Monday – Friday
[ ] Irregular – Shift work – A 24-hour work operation.
[X] Regular / Irregular – Overtime hours with overtime pay entitlement

State Purpose and Total Hours required per pay period:

40 hours a week and overtime if required in an event of non-communication issues or other issues pertaining to a smart meter and or command center and emergency situations.

The information given on this position is complete and correct.

_____ _____

Signature of Employee Date

VIII. SUPERVISOR'S REVIEW

IMPORTANT: This Block to Be Filled Out Only By The Direct Supervisor

a.	(1)	Has the employee correctly stated his or her official payroll position title? [ ] Yes] No
	(2)	If not, what is the correct title? _____
b.	(1)	Are the employee's statements about the duties of his/her position and the supplementary information complete and accurate? [ ] Yes [ ] No
	(2)	If not, what additions, deletions or corrections should be made? (Refer to block and page) _____ _____ _____
c.		What positions under your supervision perform the same essential functions Give name and title: Name Title _____ _____ _____
d.		Does this position require (mark one) [ ] Immediate supervision on a regular basis, [ ] Immediate supervision only for new/complex tasks, or [ ] Little immediate supervision.
e.		Does the employee participate in (mark those appropriate) the [ ] Formulation, [ ] Interpretation, and/or [ ] Application of Agency/Department policy. Give examples: _____ _____ _____
f.		The employee (mark one) [ ] Performs routine, well-defined tasks, [ ] Performs moderately complex tasks requiring moderate knowledge of Agency's/Department's work; or [ ] Performs complex tasks requiring extensive knowledge of Agency's/Department's work.

I certify to the accuracy of the description of duties, responsibilities and organizational relationships provided herein; further, that the position is necessary to carry out government functions for which I am responsible. This certification is made with the knowledge that this information is to be used for statutory purposes on the use of public funds. The false or misleading statement may constitute violations of such statutes or their implementing regulations.

X _____

Beatrice P. Limtiaco
Assistant General Manager, Administration

IX.

Human Resources Office Review:

Date: _____

Reviewed by: _____ _____
Position Title Name

Classification Correct: [ ] Yes [ ] No

If not, corrective action taken: (Attach copy of review made)

Approved by: _____ _____
Personnel Services Administrator Date

Civil Service Commission Post-Audit:

Date: _____

Reviewed by: _____ _____
Position Title Name

Classification Correct: [ ] Yes [ ] No

If not, corrective action taken: (Attach copy of review made)