



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 25, 2017

MINUTES

1. **CALL TO ORDER**

The Chairman called the regular monthly meeting of July 25, 2017 to order at 5:30 p.m. He announced that all four (4) Commissioners were present – Vice Chairman Francis Santos, Comm. Judi Guthertz, George Bamba and himself. For the record, Comm. Sanchez was also present; he arrived at 5:37p.m.

Those present include:

Commissioners:

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

Executive Mgmt.:

John Benavente	GM / GPA
Miguel Bordallo	GM / GWA
John Kim	CFO / GPA
Melinda Camacho	AGMO / GPA
Graham Botha	Staff Attorney / GPA
Kelly Clark	Staff Attorney / GWA

Management & Staff:

Paul Kemp	AGM Compliance & Safety / GWA
Manny Apuron	IT / GWA
Geigy Salayon	Asset / GWA
Ron Topasna	P&T / GWA
Vincent Pangelinan	GWA
Art Perez	PIO / GPA
Zina Charfauros	Personnel Admin. / GWA HR
Jacqueline Taisacan	Customer Service / GWA
Linda Benavente	Customer Service / GWA
Karen Grape	GWA / IT
Joyce Sayama	Mgmt. Analyst / GPA Ex. Office
Ann Borja	Mgmt. Analyst / GWA Ex. Office
Lou Sablan	Board Secretary / CCU

Guest:

Bill Gilman	Brown&Caldwell
George Watson	Brown&Caldwell
Dela Cruz, WW	KUAM
Andy Niven	Commissioner / PUC
Bill Chang	Brown&Caldwell
Annmarie Muna	AM Insurance
Angela Perez	AM Insurance

2. APPROVAL OF MINUTES

2.1 June 6, 2017

2.2 July 6, 2017

The Minutes of the CCU Regular Meeting of June 6, 2017 and the Special Meeting of July 6, 2017 were presented for approval.

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

3. COMMUNICATIONS

3.1 Public Comments - None

4. NEW BUSINESS

4.1 GPA

4.1.1 GM Report Update

The GM said he would prefer to begin discussions with action items first and the agenda moved to New Business Section 4.1.3

At the end of discussing and acting on policy items, the GM shared with the Commission his thoughts on the financial impact of the various GPA Integrated Resource Plans. Below is a synopsis.

The implementation of GPA's Integrated Resource Plan continues to move forward and substantially most of the recommendations, if not all, could be implemented within the next several years. The Chairman has asked what the financial impact would be for the various projects and therefore this report provides a snapshot of the expected annual fuel cost impact of the various programs by 2022.

The next 4 to 5 years is a critical period for energy production and a major shift away from GPA's typical energy production from decades past. The near future plan will move energy production from the typical steam boiler and slow speed engines burning the less expensive and cheaper Residual Fuel Oil (RFO) to more efficient fast starting and quick reacting generators burning clean Ultra Low Sulfur Diesel (ULSD). Renewable energy PV coupled with energy storage systems such as batteries will provide a substantial amount (approximately 25%) of our energy needs at a lower cost than conventional energy. These renewables, although not 24/7 energy will provide supplemental energy which will provide excellent hedges against high fuel oil prices.

Key issues to the paradigm shift in energy production:

- **GPA's baseload units are non-compliant with USEPA regulations and GPA could be subjected to more than \$200M in penalties.** GPA and USEPA would need to sign a consent decree to avoid penalties. A plan to burn ULSD and to retire RFO burning plants has been submitted to USEPA for consideration.
- **The loss of Cabras 3 & 4 units has left GPA with inadequate baseload capacity.** It has resulted in the operations of less efficient units which burn higher cost ULSD. GPA's system used to

produce less than 2% of its energy needs from ULSD. Currently and until the new power plant begins operations in about 5 years, GPA would be producing energy from less efficient generators burning ULSD between 15% to 30% of the time.

- **GPA has received approval to construct up to 180MW on new combined cycle units or flexible generations.** These new units will work well with intermittent renewables. The new plant would be more efficient and burn less fuel although the more expensive ULSD fuel. This more expensive ULSD fuel complies with USEPA regulations. The new plant would allow the retirement of the aged 42 year old Cabras 1 & 2 plant.
- **The price of utility scale solar PV renewables has dropped substantially.** CCU has awarded 120MW of solar PV power purchase agreements (Phase II), subject to PUC approval, at prices below the current LEAC. These contracts will certainly reduce energy cost in the near future and furthermore provide a long term hedge against rising fuel oil prices.

GPA will soon be issuing a bid for a power purchase agreement for about 40MW Solar PV system to be constructed on land recently leased from the US Navy. This system is expected to have load shifting capabilities so that the energy produce by the system could be released at peak time in lieu of higher cost peaking units production.

All renewables production offset conventional production fuel cost. All renewables production is considered LEAC related cost because they offset fuel cost. Renewables directly offset fuel cost and have the added benefit to Guam’s economy thru the creation of jobs and business.

I have calculated the impact of the following scenarios in FY 2022:

- Annual volume of fuel oil used, annual total energy cost, average annual \$/Kwh and the annual reduction of fuel oil barrels consumed.
- Net generation of 1,609,172,895 kWh; RFO @ \$55/bbl.; ULSD @ \$75/Bbl.

Scenario:	Description
A	FY 2017: Baseloads (RFO); Others (ULSD); NRG Renewables
B	FY 2020: Baseloads (RFO); Emergency/Peakers (ULSD); Renewables: NRG-HANWAH-KEPCO-Phase III
C	FY 2020: Baseloads (ULSD); Emergency/Peakers (ULSD); Renewables: NRG-HANWAH-KEPCO-Phase III
D	FY 2022: New 180MW Plant and MEC (ULSD); Emergency/Peakers (ULSD); Renewables: NRG-HANWAH-KEPCO-Phase III
E	FY 2022: New 180MW Plant and MEC (Natural Gas); Emergency/Peakers (ULSD); Renewables: NRG-HANWAH-KEPCO-Phase III

Scenario:	Gallons Consumption	Annual Cost	Annual Variance	Avg \$/Kwh	Total BBLs.	BBL. Variance
A	110,884,018	\$168,819,330		\$0.105	2,640,096	0
B	81,414,199	\$157,383,401	-\$11,435,929	\$0.098	1,938,433	-701,663
C	85,456,936	\$197,519,886	\$28,700,556	\$0.123	2,034,689	-605,407
D	69,445,444	\$168,881,229	\$61,899	\$0.105	1,653,463	-986,633
E	3,719,437	\$141,495,393	-\$27,323,937	\$0.088	88,558	-2,551,538

Scenario A: This is the base case which assumes fuel oil prices in 2020 are what it is today. The loss of Cabras 3&4 has left us with inadequate baseload capacity resulting in emergency and standby units having to operate on a regular basis. It is estimated that non-baseload units will have to

produce as much as 25% of the energy needs in the next 4 to 5 years until the new 180MW power plant is commissioned.

Scenario B: This scenario shows the savings, at today's fuel oil prices, which could occur from HANWHA, KEPCO and Phase III renewables. Savings calculates to about \$11M annually. Higher fuel oil prices increase the savings.

Scenario C: This scenario shows what annual fuel cost would be should USEPA require us to immediately convert Cabras 1&2 and MEC 8&9 to ULSD. This calculates to about \$40M in additional cost in one year.

Scenario D: This shows that the installation of the new more efficient 180MW plant burning ULSD and the award of Phase II and Phase III renewables would keep fuel cost at about today's level. This scenario has substantial fuel cost savings in comparison to Scenario C which is retaining existing units and converting all baseload units to ULSD.

Scenario E: This scenario is similar to Scenario D, but estimates fuel cost of about \$27M by converting to natural gas. The CCU has directed management to continue to monitor the cost effectiveness of burning natural gas on the expected new 180MW power plant. As has been noted, the new plant will have dual fired capabilities of ULSD and natural gas. The conversion to natural gas would require an investment of about \$200M. However, fuel oil prices are approaching that level in which natural gas burning plants would provide substantial savings to ratepayers. If WTI Crude prices jump to \$60/Bbl., burning natural gas provides an estimated \$47M annual fuel cost savings.

In conclusion, GPA's Integrated Resource Plan has laid out a realistic and achievable plan which would keep rates reasonable and affordable. Its implementation would insure ratepayers will not experience the difficulties of a fuel oil crisis rates similar to the one a few years ago when fuel oil prices exceeded \$100/Bbl. and residential customer rates exceeded \$0.29/Kwh.

Chairman Duenas thanked the GM and management for bring this report to the CCU. He said it is important that ratepayers know and understand that there is a method to our madness and that our actions are based on efforts to save the rates reasonable and affordable for everyone.

Comm. Bamba said it seems management is using renewables as a hedge on fuel and asked what kind of savings the GM anticipates GM Benavente said in 2020 he anticipates that 25% of island-wide power system power would come from renewables.

4.1.2 Financials

There was no discussion.

4.1.3 RATIFICATION OF POLL VOTE: Resolution 2017-27 Relative to Procurement of Additional Ultra Low Sulfur Fuel

Resolution 2017-27 was a poll vote matter that happened on July 20, 2017 and presented today for official ratification.

Comm. Santos moved to accept Resolution 2017-27; Comm. Guthertz seconded. For the record the ratification / vote was (4) yes and (1) abstention by Comm. Bamba. The resolution passed.

GPA continues to address the maintenance necessary to keep generating units efficient and reliable, the increase in demand for ultra-low sulfur fuel oil also continues to increase. GPA has initially purchased

additional ULSD product from IP&E for up to 105,000 barrels. However, additional quantities may still be needed through the Cabras Overhaul Period, and to ensure adequate contingency inventory for GPA through December 31, 2017. Other third party suppliers may not be able to accommodate GPA's requests hence it is necessary to continue purchasing via IP&E as well, to ensure uninterrupted fuel supply. The fuel will be delivered to Guam, stored in GPA and IP&E's leased storage facilities, and under GPA's direction, IP&E may be requested to deliver to certain locations.

The supply of fuel is estimated to cost \$76.30 per barrel, and GPA requests for additional shipments through December 2017 of up to 300,000 barrels. Total cost is \$22,890,000. The delivery will cost \$0.17 per gallon, or a total cost of \$2,142,000. The total costs for supply and delivery will be a maximum of \$25,032,000 and will be expensed through GPA's fuel budget.

For the record, the Commission ratified the poll vote of (4) yes and (1) abstention.

4.1.4 Resolution 2017-28 Approval of Phase II Power Purchase Agreement

On June 6, 2017 the CCU approved Resolution no. 2017-25 authorizing GPA to petition the Public Utilities Commission (PUC) to award Phase II Renewable Acquisition Bid of two 30MW proposals each to Hanwha Energy Corporation and KEPCO-LG CNS Consortium for a total of 120 megawatts (MW). GPA and KEPCO-LG CNS Consortium have completed and agreed to commercial terms and conditions of the Power Purchase Agreements (PPA). GPA seeks approval to submit KEPCO-LG CNS Consortium's PPA to the PUC for their approval.

GPA continues to work with its consultant on the System Impact Study to define the interconnection requirements in an Interconnection Agreement; however these requirements will not change the terms and conditions of the PPA, including contract price and performance guarantees and penalties. The PPA will require KEPCO-LG CNS Consortium to agree to the Interconnection Agreement as a condition to the signing of the PPA which is for a 25-year term.

The KEPCO_LGCNS 2x30MW solar projects are located at Sasajyan, Mangilao and will be funded through LEAC. The cost is noted in the price proposal below

Site A

Contract Year	Annual Price (\$/MWH)	Guaranteed Net Annual Generation (MWH/YR)	Annual Price (\$)	Contract Year	Annual Price (\$/MWH)	Guaranteed Net Annual Generation (MWH/YR)	Annual Price (\$)
1	85.50	74,542.29	6,373,301.30	16	99.26	68,788.84	6,828,106.93
2	86.35	73,974.68	6,388,018.45	17	100.25	68,601.94	6,877,649.88
3	87.22	73,604.26	6,419,591.74	18	101.26	68,048.01	6,890,337.29
4	88.09	73,233.84	6,451,157.70	19	102.27	67,677.59	6,921,358.30
5	88.97	73,058.88	6,500,102.43	20	103.29	67,307.18	6,952,310.69
6	89.86	72,493.01	6,514,254.33	21	104.33	67,116.29	7,001,919.62

7	90.76	72,122.59	6,545,778.20	22	105.37	66,566.34	7,013,991.65
8	91.67	71,752.18	6,577,281.12	23	106.42	66,195.92	7,044,711.02
9	92.58	71,573.23	6,626,486.53	24	107.49	65,825.51	7,075,343.38
Contract Year	Annual Price (\$/MWH)	Guaranteed Net Annual Generation (MWH/YR)	Annual Price (\$)	Contract Year	Annual Price (\$/MWH)	Guaranteed Net Annual Generation (MWH/YR)	Annual Price (\$)
12							
1 13	85.50	74,542.29	6,373,301.30	16	99.26	68,788.84	6,828,106.93
2 14	86.35	73,974.68	6,388,018.45	17	100.25	68,601.94	6,877,649.88
3 15	87.22	73,604.26	6,419,591.74	18	101.26	68,048.01	6,890,337.29
4	88.09	73,233.84	6,451,157.70	19	102.27	67,677.59	6,921,358.30
5	88.97	73,058.88	6,500,102.43	20	103.29	67,307.18	6,952,310.69
6	89.86	72,493.01	6,514,254.33	21	104.33	67,116.29	7,001,919.62
7	90.76	72,122.59	6,545,778.20	22	105.37	66,566.34	7,013,991.65
8	91.67	71,752.18	6,577,281.12	23	106.42	66,195.92	7,044,711.02
9	92.58	71,573.23	6,626,486.53	24	107.49	65,825.51	7,075,343.38
10	93.51	71,011.34	6,640,209.75	25	108.56	65,630.64	7,124,941.98
11	94.44	70,640.93	6,671,628.12				
12	95.39	70,270.51	6,703,010.83				
13	96.34	70,087.58	6,752,417.40				
14	97.31	69,529.68	6,765,653.80				
15	98.28	69,159.26	6,796,906.12				

GM Benavente updated the Commission on the status to date with price negotiations and also mentioned that a protest received today from Shanghai Group which has forced him to issue a stay of procurement. GPA will respond to the protest diligently until it is resolved. For now, management asked to table this Resolution pending outcome of the protest.

Discussion followed relative to anticipated length of the protest, Comm. Bamba asked management if there is a timeframe relative to the protest stating his concern is that this matter will save the ratepayer

money – 6.5 cents v. 12-14 cents. Shanghai Group cited several reasons and GPA will go through each one with due diligence until the matter is satisfactorily resolved.

Comm. Bamba said if this protest is due to price difference it is a given that they did not win the bid so why the protest.

Comm. Guthertz said we are obligated by law that a process be followed. We have to ensure our agency uses proper diligence to follow procedures and respond appropriately. It is true that there are times when protests are used as a tool to detain action but either way, we have to choose.

Comm. Bamba said at the end assuming the protest is resolved in favor for GPA will the price agreement still hold. The GM said there is always that possibility especially when there's a price validity date. In this case, the validity date is in September. If the protest encroaches on this date GPA's recourse could be to ask for an extension.

After a lengthy discussion, this matter was tabled pending resolution of the protest.

4.1.5 Resolution 2017-29 Relative to Zero Tolerance Drug Policy

It is the policy of GPA and GWA to provide a safe, healthy and secure work environment for all employees. It is also the policy of GPA and GWA to ensure that all employees perform their job duties in a safe, efficient and productive manner. GPA and GWA have drafted a new joint DRUG AND ALCOHOL FREE WORKPLACE policy that makes changes from the previous policy that allowed employees to complete a drug treatment program, and remain employed provided they successfully completed a drug treatment program. The new draft DRUG AND ALCOHOL FREE WORKPLACE POLICY provides for a zero-tolerance drug policy, such that if an employee tests positive for drugs they will be terminated as employees of GPA and GWA. The General Managers of GPA and GWA were directed to receive input from employees and provide the Consolidated Commission on Utilities (CCU) with a proposed final policy by the September 2017 CCU meeting. Management is directed to begin training on the new DRUG AND ALCOHOL FREE WORKPLACE policy to be implemented October 1, 2017.

There was discussion on the importance of educating all employees and to allow those who need to seek help to do so in an effort to prepare for the Oct.1 implementation date. GM Benavente said he would also like to give employees a chance to comment and to bring the policy back to the Commission with any recommended amendments in the September meeting for final CCU approval.

Chairman Duenas said if the CCU approves the resolution tonight the policy would already be approved and management can implement it without further action from the CCU.

Comm. Guthertz asked if HR was involved in the creation of the policy and if the employees gave input on the proposed policy. The GM said that this issue was presented to employees at his last briefing and mentioned to them that management's direction is a zero tolerance policy. Comm. Guthertz said she supports a zero tolerance policy but thinks it is important to garner employee buy-in by allowing them to comment on the draft policy before the CCU adopts it.

Comm. Santos asked the GM's what did management do to let the employees know about this major shift – were there HR meetings held because this is a huge change. He said he too agrees with the zero tolerance policy but employees need to know.

Comm. Guthertz said if this is approved tonight then we really need an effective education for our employees.

Comm. Sanchez read a portion of the policy that speaks of aftercare treatment and said the verbiage of the policy does not coincide with zero tolerance.

The discussion went back and forth and at the end it was clear that the language of the draft policy, as written, was confusing and the implementation process unclear. Management was directed to revisit the policy and make the language more clear. Resolution 2017-29 was tabled.

4.1.6 Resolution 2017-30 Relative to Establishment of Business MasterCard

In March 2016, the Guam Power Authority (GPA) and Guam Waterworks Authority (GWA) procured and awarded the merchant banking services contract with the Bank of Hawaii (BOH). During the last year, BOH has assessed an average of 1.25% in fees of the total debit and credit card payments processed, including MasterCard, VISA and Discover. Because of this, currently, GPA is only authorized to accept debit and credit card payments from residential customers because it would be too costly to include commercial customers.

BOH confirmed they are now able to offer both GPA and GWA the Utility Interchange rate when utility bills are paid with MasterCard. A large commercial customer would generate fees of approximately between \$50 - \$100 using a commercial or business MasterCard. GPA estimates the total cost to the Authority will be approximately \$160,000 annually assuming all commercial accounts use MasterCard.

GPA feels with the favorable Utility Interchange rates for MasterCard it can now offer to commercial customers the convenience of paying their power bills with MasterCard debit and credit cards at a reasonable cost. GPA is now requesting for the authority to extend the use of MasterCard debit and credit cards as payment for commercial accounts. This flat rate fee is \$0.65/transaction for MasterCard consumer credit cards, \$0.45/transaction for MasterCard debit cards and \$1.50/transaction for MasterCard commercial and business cards plus BOH's nominal processing fee passed on to GPA and will be implemented as soon as approved by the CCU. The funding source for all merchant banking expenses would be revenue funds.

Comm. Sanchez motioned to approve Resolution 2017-30; Comm. Guthertz seconded.

It was mentioned that management has been struggling with the issue of high merchant fees for a very long while and welcomes the chance to pass on these proposed low fixed rates to ratepayers, especially businesses. If Resolution 2017-30 is approved, it would allow all customers to be able to transact payments using MasterCard. Comm. Sanchez asked how long the agreement would be with Bank of Hawaii; the CFO confirmed there are (4) 1-year options

The Commission congratulated management for this great accomplishment and asked them to report on related savings accrued for each respective agency at a future meeting.

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

4.1.7 Resolution 2017-31 Relative to Lease of Additional Storage Tank from Tristar Terminals

GPA is currently renting tanks for Ultra Low Sulfur Diesel (ULSD) storage, with a combined total usable capacity of about 95,000 bbls. From the months of April through June of 2017, the ULSD consumption was between 75,000 to 92,000 barrels per month. Because of the significant changes in consumption due to baseload plant outages, MW demand and other reasons, GPA's current ULSD supplier storage capacity is insufficient to meet GPA's supply volume requirement. It has become necessary for GPA to store contingency inventory for ULSD. As with RFO, GPA intends to store about 60 days of ULSD inventory level, comprising of 30 days operating and 30 days reserve, to ensure uninterrupted fuel supply in the event of extended baseload outages and increased ULSD consumption based on the current ULSD consumption of approximately 3,000 bbl per day, GPA would need to increase the storage currently leased from TTGI to approximately 180,000 bbls. The increased storage capacity will also allow for the replenishment of

inventory within 30-45 days shipment turn-around, minimizing additional costs associated with frequent fuel shipments.

The intended tank for lease is located at Agat, at the TTGI facilities. It's maximum capacity is 200,000 bbls with a Safe Fill Capacity of 196,000 bbls. The lease cost is \$6/bbl year or \$1,176,000 annually, excluding costs for the transfer of fuel. The funding source for this expense will come from the Fuel Budget Fees and LEAC.

A minimum of six months' lead time is required for TTGI to refurbish the tanks. Once available, GPA plans to lease the tank for four (4) years, until the fuel farm inspections and refurbishment are completed, as well as the plans for other generating units and the new power plant.

Comm. Santos asked when GPA plans to build their own tanks. At what point will GPA start investing in their own tanks. With plans for new generation, will GPA own their own tanks. The GM said yes. GM Benavente explained that the current tanks that GPA owns were used to store RFO fuel and the cleaning process for existing tanks to prep them for ULSD fuel takes time. He said he the cleaning process to transition the tanks could take 3-4 years.

Comm. Guthertz motioned to approve Resolution 2017-31 for discussion; Comm. Sanchez seconded.

Comm. Sanchez asked management to start planning for GPA's tank needs in the future and how the current tanks available fits into the plan which he asked management to bring back to the Commission in a few months. GM Benavente concurred. He said that GPA needs more space to hold fuel and now with approval of this resolution, they will have it.

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

4.1.8 Resolution 2017-32 Relative to Contract Ext. for GPA Fuel Bulk Storage Facility

The Guam Power Authority's current contract for the Management, Operation and Maintenance of GPA's Fuel Bulk Storage Facility is expired in May 2017. The solicitation for a new contract was completed and award to the lowest bidder was approved via CCU Resolution 2017-10. However, a protest has been filed and is still in progress. The extension of the current contract is necessary to ensure that GPA continues to receive services required for the proper operation, maintenance and security of the Fuel Bulk Storage Facility, to ensure uninterrupted, reliable fuel supply to the GPA plants. The contractor will continue to manage the fuel bulk storage facility located at Cabras.

For the 5th year of the contract, the annual cost was \$684,056.47, or about \$57,005 per month. Extension through December 31, 2017 would cost \$399,035. This does not include costs for any project above \$5,000. Extension is requested through December 31, 2017, on a month-to-month basis as required. The fund source for this request will be from Fuel Handling Fees, under the Fuel Budget and LEAC.

Comm. Guthertz motioned to approve Resolution 2017-32; Comm. Sanchez seconded. There was no further discussion or objection and the motion carried. On the vote, there were (4) ayes and (1) abstention. For the record, Comm. Bamba abstained.

At this point in the meeting, the Chairman called for a 5-minute recess; it was 6:52 p.m.

4.2 GWA

The meeting was called back to order at 7:03 p.m. and GWA matters were discussed.

4.2.1 GM Report Update - GM Miguel said there was no change from report provided at the GWA Work Session

4.2.2 Financials - CFO Cruz reported no change from report provided at the GWA Work Session

4.2.3 Resolution 42-FY2017 Relative to Zero Tolerance Drug Policy - Tabled

4.2.4 Resolution 43-FY2017 Relative to Funding of Yigo & Astumbo Reservoir Construction Project

The objective of the funding increase is to provide for the additional construction management services specific to the new Yigo No. 3 reservoir which will be captured in a proposed Change Order No. 2. The reason a funding increase was needed is GWA management executed Change No. 1 to Pernix Guam's contract which "advanced" the construction of Yigo No. 3 reservoir and its associated work, in order to realize economies of scale resulting in overall cost reduction for the construction work. Construction of Yigo No. 3 was to potentially occur at a later phase once Yigo No. 1 was completed. The CM services for Yigo No. 3 was not taken into account in the initial Construction Management (CM) services scope thus GWA negotiated with its construction manager, GHD, to continue CM services for the Yigo No. 3 reservoir, along Route 1 near the entrance to Anderson Air Force Base, Yigo.

Given there is still a balance in the current contingency fund, the additional funding increase request is Two Hundred Ninety Three Thousand Six Hundred Ninety One Dollars (\$293,691.00). GWA management also seeks a ten percent (10%) contingency to the additional fund request of Twenty Nine Thousand Three Hundred Sixty Nine Dollars and Ten Cents (\$29,369.10), to bring the additional total fund request to Three Hundred Twenty Three Thousand Sixty Dollars and Ten Cents (\$323,060.10).

With this funding increase on top of the original approval of One Million Five Hundred Twenty Six Thousand Seven Hundred Eighty Dollars and Twenty Cents (\$1,526,780.20), the increased funding total for the CM services is One Million Eight Hundred Forty Nine Thousand Eight Hundred Forty Dollars and Thirty Cents (\$1,849,840.30). The funding for this project will be from the bond funds. The CM services will continue up until July 2018.

Comm. Sanchez motioned to approve Resolution 43-FY2017; Comm. Bamba seconded.

The Commission said they reviewed and discussed this resolution in detail during the work session and has no further discussion.

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

4.2.5 Resolution 44-FY2017 Relative to Route 2 Sewer Line Replacement Project

The objective of this project is to replace approximately 16 manholes and approximately 2,200 linear feet of sewer pipelines along Route 2, in the village of Agat. Construction activities will be limited to the government easements of the sewer infrastructure elements identified by GWA, through an SSES investigation, to be subjected to excessive infiltration and inflow (I&I) and surcharging. Successful completion of this project will result in reduced I&I within the wastewater collection system and decreased storm water volume that enters into the collection system tributary to the Agat-Santa Rita WWTP. GWA and USEPA agree that efforts to rehabilitate, repair or replace the sewer line are necessary.

The construction services contract was proposed by ProPacific Builder Corporation at a total amount of Four Million Five Hundred Fifty Four Thousand Four Hundred Fifty One Dollars (\$4,554,451.00). 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. The construction contract length of this project is 365 calendar days after an NTP is issued to the contractor. Estimated completion of construction is in Fall 2018.

GWA management is also seeking a ten percent (10%) contingency of the total contract amount of Four Hundred Fifty Five Thousand Four Hundred Forty Five Dollars and Ten Cents (\$455,445.10), which brings the total authorized funding amount to a maximum of Five Million Nine Thousand Eight Hundred Ninety Six Dollars and Ten Cents (\$5,009,896.10). It was said that the funding for this project will be from USEPA SRF Grant Funds and, if necessary, GWA Bond Funds applicable to the project.

Comm. Sanchez motioned to approve Resolution 44-FY2017; Comm. Bamba seconded.

It was again mentioned that the Commission reviewed and discussed aspects of the details of this request at the GWA Work Session and are ready to render a vote.

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

4.2.6 Resolution 45-FY2017 Relative to On-site Representative/CM Umatac-Merizo WWTP Design Build Proj

The objective of this project is to provide construction management services for upgrades to the Umatac-Merizo WWTP. It is a Design-Build contract so the Owner Site Representative/construction manager services are necessary, and will focus on monitoring the progress of the design work, construction progress on the site by the Design-Builder, to ensure compliance with plans and specifications, reviewing the construction schedule relative to actual construction progress, reviewing Design-Builder pay applications in comparison with construction work performed, receiving and logging Design-Builder submittals, and keeping GWA advised and informed as to project progress and cost, just to name a few activities.

The approval of the Owner Site Representative (Construction Management) Services Contract and ultimately execution of the contract will tie into the completion schedule for this Court Order project. There is an immediate need for the CM given the WWTP upgrades are currently under design.

The construction management services proposal by SSFM International is One Million Two Hundred Seventy Eight Thousand Fifty Dollars (\$1,278,050.00). GWA management is also seeking a 10% contingency of One Hundred Twenty Seven Thousand Eight Hundred Five Dollars (\$127,805.00), for a total funding amount of One Million Four Hundred Five Thousand Eight Hundred Fifty Five Dollars (\$1,405,855.00). The funding for this project will be from the GWA Bond Funds, System Development Charge Funds, as applicable, and Internally Funded CIP. The project completion is anticipated to be December 2018.

Comm. Sanchez motioned to approve Resolution 45-FY2017 and Comm. Guthertz seconded. There was no further discussion or objection and the motion passed.

4.2.7 Resolution 46-FY2017 Relative to Change Order D-Series Well Rehabilitation Project

When approved Resolution 46-FY2017 will enable a well maintenance rig (well pump hoist) to the Island-wide Well Site Rehabilitation project. The rig has been identified as critical equipment for GWA to regularly perform well maintenance and timely repairs. Additional funding is needed for Change Order No. 6 and additional electrical work. The additional electrical work was determined to be necessary after award of the contract to complete the power supply requirements for the project. Due to the urgency of completing the power supply to the well sites located at Groundwater Wells D-03, D-17, D-18, D-22, and M-09 within the villages of Dededo and Mangilao. Additional funding is requested before a formal change order is requested.

The funding for this project will be from USEPA Grant and, if necessary, GWA Bond Funds applicable to the project. The original contract value for this project is Four Million Six Hundred Eighty Nine Thousand Eight

Hundred Eighty Eight Dollars (\$4,689,888.00), plus a ten percent (10%) contingency of Four Hundred Sixty Eight Thousand Nine Hundred Eighty Eight Dollars and Eighty Cents (\$468,988.80).

The proposed Change Order No. 6 will require funding in the amount of Eight Hundred Seventeen Thousand One Hundred Forty Seven Dollars (\$817,147.00) to proceed with the purchase of the well maintenance rig and supporting equipment.

The additional electrical work necessary to complete the well power supply is estimated to be Two Hundred Thousand Dollars (\$200,000.00). This brings the total authorized funding amount to a maximum of Six Million One Hundred Seventy Six Thousand Twenty Three Dollars and Eighty Cents (\$6,176,023.80).

The shipment of the rig and supporting equipment will arrive four months after the approval of this Change Order. The electrical work is expected to be completed in October 2017.

Comm. Bamba motioned to approve Resolution 46-FY2017; Comm. Sanchez seconded. There was no further discussion or objection and the motion passed.

4.2.8 Resolution 47-FY2017 Relative to Design Services Northern District WWTP Upgrades

This project is to design the necessary upgrades to the NDWWTP to secondary treatment as part of the wastewater improvements in support of the relocation of U.S. Marines and their dependents to Guam and which is funded through a General Assistance Grant from the U.S. Department of Defense, Office of Economic Adjustment. The project is located at the existing Northern District WWTP as well as the adjacent property northwest of the existing plant that is going through final acquisition proceedings.

The scope of work in general involves engineering design, permitting, and engineering services during construction. The urgency of approving the project intent and fee range is GWA's internal milestone deadline to issue the Notice to Proceed to the design firm by the end of July 2017 to meet timelines established in the Office of Economic Adjustment grant requirements and coordinated with the Guam Water and Wastewater Intergovernmental Support Team.

The final cost for the engineering design services is being negotiated, and GWA management seeks the support of the CCU to approve the intent of the design project and approve and authorize the funding not to exceed GWA Engineering's estimate and grant budget amount of Nine Million Dollars (\$9,000,000.00). GWA Management's negotiations so far indicate a fair and reasonable cost for engineering design and services during construction for the negotiated scope of work below the budgeted amount. The design firm will be required to provide services to the overall project which has a completion deadline of December 31, 2021.

Comm. Guthertz moved to approve Resolution 47-FY2017; Comm. Bamba seconded. There was no further discussion or objection and the motion passed.

Comm. Bamba commended GM Bordallo for moving this project forward.

4.2.9 Resolution 48-FY2017 Relative to Funding Agat-Santa Rita WWTP ConstrMgmtContract

Management is asking the Commission for an increase to fund the additional construction management services by GHD to oversee construction activities at the Agat Santa Rita WWTP along Route 2 where off-site waterline improvements are on-going. The reason for the required funding increase is that GWA management executed Change Order to the Contractor, Sumitomo Construction that extended their contract completion date to December 2017 due to permitting and rain delays. Therefore in order to have continued CM services during the extended contract period, GHD contract services must also be extended to cover this period.

There is currently potential for further delays by the contractor related to adverse weather conditions and the H2-B visa program, which could impact the construction completion period for SMCC an additional one to three months past their current December 2017 deadline. If such potential delays are confirmed, CM services may also be needed to cover this additional period.

The funding for this project will be from the bond funds under the line item - WW 11-08 "Agat/ Santa Rita STP Replacement". The additional fund amount requested is Five Hundred Eighty One Thousand Four Hundred Thirty One Dollars (\$581,431.00) plus Four Hundred Thirty Two Thousand Nine Hundred Eighty One Dollars (\$432,981.00) to cover CM services should there be an extension to the SMCC contract completion period for a total funding increase of One Million Fourteen Thousand Four Hundred Twelve Dollars (\$1,014,412.00)

With this funding increase on top of the original approval of Three Million Two Hundred Eighty Eight Thousand Six Hundred Fifty Three Dollars (\$3,288,653.00), the funding total for the CM services is Four Million Three Hundred Three Thousand Forty Seven Dollars (\$4,303,047.00). The CM services will continue up until December 2017 however should there be any extension to the construction contractor's completion the CM services will cover up until March 2018.

Comm. Sanchez moved to approve Resolution 48-FY2017; Comm. Guthertz seconded. There was no further discussion or objection and the motion passed.

4.2.10 Resolution 49-FY2017 Relative to Ratification of Expenditures for Chlorine Contract

Liquid Chlorine is necessary for the treatment of drinking water to disinfect impurities and is a requirement by the Safe Drinking Water Act and required by local and federal laws. Its procurement will benefit the various well locations island-wide.

The 3 Year contract cost for this procurement is 150lbs. Chlorine Cylinder \$558.75 each, 1 Ton Chlorine Cylinder \$5,807.40 each. The Bid Specified amount estimated for 150lbs. is 1,260 cylinders per annum and for 1 Ton it is 12 cylinders per annum

The total expenditure for the 3-year contract term is \$2,460,984.00 (Average \$820,328/yr.) and the term for 2 year for renewal with a 5% price increase is 150lbs. Chlorine Cylinder \$586.68 each and 1 Ton Chlorine Cylinder \$6,097.78 each.

The Estimated Cost for 150lbs. Chlorine Cylinder \$586.68/\$739,216.80 annually and for 1 Ton. Chlorine Cylinder it is \$6,097.78/\$73,173.36 annually, totaling \$812,390.16 Estimated Annually – all funded through O&M.

Comm. Bamba motioned to approve Resolution 49-FY2017; Comm. Guthertz seconded.

In discussion Comm. Guthertz asked if the contract provides for an extension if needed and GM Bordallo said yes.

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

4.2.11 Resolution 50-FY2017 Relative to Additional Purchase of Membrane Modules for Ugum WTP

If approved, Resolution 50-FY2017 will replace the balance of four hundred sixty-four (464) existing membrane filters that have met their manufacturer life expectancy at the Ugum Water Treatment Plant and to ensure the plant continues to meet Surface Water Treatment Rules and Safe Drinking Water Standards. GWA has already replaced four hundred (400) membrane filters procured under previous authorization from the CCU.

The purchase of 464 membrane filters at a cost of One Thousand Four-Hundred Twenty Dollars (\$1420.00) each will cost Six Hundred Fifty-Eight Thousand Eight-Hundred Eighty Dollars (\$658,880.00) and will be funded through Internally Funded Capital Improvement Projects (IFCIP). The anticipated project completion date is September 30, 2017.

Comm. Guthertz asked if this procurement will go out for bid and GM Bordallo confirmed yes. Comm. Santos asked if this was for back up and GM said it is for immediate replacement upon arrival. CCU asked when the next series of replacements would be and GM Bordallo said that because this item does have a shelf life management does not want to order too much; as far as date of next replacement, it was not mentioned.

Comm. Bamba moved to approve Resolution 50-FY2017; Comm. Guthertz seconded. There was no further discussion or objection and the motion passed.

4.2.12 Resolution 51-FY2017 Relative to Refunding of 2010 Series GWA Water& Wastewater Sys.Rev.Bonds

If approved, Resolution 51-FY2017 will refund GWA's 2010 system Revenue Bonds and capitalize on lower municipal bond interest rates which in turn will produce lower debt service. Upon the approval of the CCU, GEDA and the Public Utilities Commission, it is estimated the sale will be completed sometime around the end of September 2017 and the pricing and sale will take place in New York City, New York.

Approximately \$1.7 million is estimated to pay for typical issuance costs to cover expenses and fees of GWA's Bond Underwriter, the Guam Public Utilities Commission, GWA and GEDA. The cost of the refunding will be paid from proceeds of the refunding bonds.

CFO Cruz said GWA management is requesting the CCU to allow GWA to refund 2010 revenue bond. The Bond has Call features allowing to call prior to its first redemption date. He added that the interest rate is in GWA's favor and will save \$10M in debt service thru 2040. This represents \$8M in savings in net present value over 22 years. CFO Cruz gave savings scenario that shows at what point savings will start to deteriorate if no action is taken.

Comm. Sanchez wants to make sure that management is clear to the PUC relative to the savings and definitions of savings. He asked about the timeline for effective date and the CFO said about 60days. Comm. Sanchez asked about the projected interest rate that may exist in the market and the CFO said the average is about 5.6% and the new anticipated rate is 4.15%. He further restated that 2 things have happened interest rates are down and GWA has improved their credit rating. Because of this GWA's consultants are recommending that the balance of bonds be refinanced to take advantage of the current market status. It was noted that the last Refi in 2014 was approved by the PUC with a premium and with net present value above 2%. Prepare a summary of previous date approved by PUC showing when there were premiums applied. It is important that they understand that the premium is not paid by GWA but the investor buying the new bonds is paying GWA. He told management he wants to work very hard to be clear with PUC.

It was mentioned that this resolution does not need legislative approval but must be approved by PUC & GEDA. Comm. Guthertz asked when will this initiative with PUC occur; the response was as soon as CCU approves this resolution.

Comm. Guthertz moved to approve Resolution 51-FY2017; Comm. Bamba seconded. There was no further discussion or objection and the motion passed.

5. OLD BUSINESS – None

6. **ANNOUNCEMENTS**

6.1 **Next CCU Meetings: GWA Work Session: Aug 16; GPA Work Session: Aug 17; CCU Meeting: Aug 22**
The Chairman announced that the next meeting would be a work session for GWA on Aug. 16 and GPA on Aug 17, followed by the CCU regular monthly meeting on Aug. 22.

Commissioner Sanchez said he would be traveling and asked if the August meetings could be pushed back a week being that he would like to take part in the discussions. Chairman Duenas said he will discuss this request with management and the other Commissioners and advise.

7. **ADJOURNMENT**

There was no further business to bring before the Commission and the meeting was adjourned at 6:51 p.m.

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Attested:



JOSEPH T. DUENAS, Chairman



J. GEORGE BAMBA, Secretary