

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION



IN THE MATTER OF:) GWA Docket 23-01
)
PETITION TO AUTHORIZE THE GUAM)
WATERWORKS AUTHORITY TO ISSUE) **ALJ REPORT**
A COMPETITIVE BID TO)
REHABILITATE THE UGUM SURFACE)
WATER TREATMENT PLANT)
_____)

INTRODUCTION

This matter comes before the Guam Public Utilities Commission [“PUC”] pursuant to the Petition of the Guam Waterworks Authority [“GWA”] for PUC Approval of GWA’s Issuance of an Invitation for Bid [“IFB”] to Procure Construction Services and Supplies to Rehabilitate the Ugum Surface Water Treatment Plant [“Ugum SWTP”].¹

BACKGROUND

The Ugum Service Water Treatment Plant [“Ugum SWTP”] produces surface water to serve Guam’s southern water system.² The Ugum SWTP treats the Ugum River water and then pumps the river’s water into storage reservoirs to serve the island’s southern residents.³ The plant was originally constructed in 1991 and retrofitted and modernized from 2007-2010. Today the Ugum SWTP operates a membrane filtration treatment system.⁴

¹ GWA Petition, GWA Docket 23-01, dated November 10, 2022.

² Id., at p. 1.

³ Id. at p. 1-2.

⁴ Id., at p. 2.

Based upon GWA's Master Plan (2015), and three assessments by professional engineering firms (Brown and Caldwell in 2015, Du Pont in 2021, and most recently by Duenas Camacho and Associates ["DCA"] in 2022), the aging plant's existing equipment and systems need major infrastructure improvements and refurbishment.⁵

The 2022 DCA assessment concluded that the plant is currently in operating condition "but requires significant rehabilitation work and materials to continue providing safe drinking water to GWA customers in southern Guam."⁶ The plant's present condition limits its capability, operability, and reliability.⁷

GWA seeks PUC approval to procure construction services and material in support of the needed Ugum SWTP rehabilitation.⁸ In support of its Petition, GWA has provided a detailed estimate of the cost for the project and the services needed to be performed.

The total cost estimated is \$4,626,050.00.⁹ In addition, on November 15, 2022, GWA submitted Draft Procurement Bid Documents relative to the Ugum SWTP

Rehabilitation.¹⁰

DISCUSSION

1. GWA's Contract Review Protocol

⁵ Id.

⁶ Id.

⁷ Id.

⁸ Id., at pgs. 2-3.

⁹ Email from Theresa Rojas, GWA Counsel, to Fred Horecky, PUC ALJ, dated November 11, 2022, re: "Cost Estimate, Ugum SWTP Rehabilitation".

¹⁰ Email from Theresa Rojas, GWA Counsel, to Fred Horecky, PUC ALJ, dated November 15, 2022, with Procurement Bid Documents attached.

GWA indicates that “this respective procurement is estimated to exceed expenses of \$1,000,000.00 based on cost estimates received of \$4,626,050.00.”¹¹ The GWA Contract Review Protocol requires that the PUC must review “All professional service procurements in excess of \$1,000,000...”¹² The proposed procurement must be approved by the PUC “before the procurement process is begun.”¹³

2. The Need/Justification for the Procurement

DCA conducted an assessment of the Ugum SWTP from June to August 2021.¹⁴ DCA, based upon its assessment, prepared a scope of work and cost estimate of the needed capital improvements to the Ugum SWTP and Raw River Intake Facility. The Scope of Work is attached hereto as Exhibit “1”.¹⁵ The DCA 2022 Report includes findings of failing equipment and equipment beyond repair requiring immediate replacement.¹⁶

The Ugum SWTP rehabilitation services includes rehabilitation and upgrades to the raw water pumps at the river intake, settling basins, membranes, pipe gallery, generator room, backwash, neutralization tank, sludge tank, thickening system, operations and chemical building, and administration building.¹⁷

¹¹ GWA Petition, GWA Docket 23-01, dated November 10, 2022, at p. 3.

¹² Contract Review Protocol for Guam Waterworks Authority, Administrative Docket, Docket 00-04, dated October 27, 2005, at Par. 1(c)

¹³ Id., at Par. 1.

¹⁴ GWA Petition, GWA Docket 23-01, dated November 10, 2022, at p. 11.

¹⁵ Exhibit “1”, Scope of Work prepared by GWA, attached to the GWA Petition as Exhibit A-8 through A-11.

¹⁶ Id.

¹⁷ GWA Petition, GWA Docket 23-01, at p. 3.

The Guam Consolidated Commission on Utilities has concluded that the Ugum SWTP “is a critical water source which provides water to much of southern Guam”¹⁸: “The proposed rehabilitation is necessary and urgent to improve plant capacity, treatment performance, and provide reliable operation of the water treatment plant.”¹⁹

3. The Proposed Contract Form

Included in its bid procurement documents, GWA has submitted a draft “AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE).”²⁰ After completion of the procurement process and the award of a contract, GWA will seek PUC approval for the final contract and amounts to be awarded.²¹ An initial review indicates that the draft contract appears to contain adequate provisions to protect the interest of GWA and its ratepayers. Those include liquidated damages²², Performance and Payment Bonds²³, Insurance requirements²⁴, Mediation and Claims Resolution process²⁵, and Termination for Cause or Convenience²⁶.

4. Cost

¹⁸ GWA Resolution No. 03-FY2023, Relative to Requesting Approval to Procure Construction Services Relative to the UGUM Service Water Treatment Plant Rehabilitation, adopted and approved on October 25, 2022, at Exhibit A-1.

¹⁹ Id. at Exhibit A-2.

²⁰ Email from Theresa Rojas, GWA Counsel, to Fred Horecky, PUC ALJ, dated November 15, 2022, Procurement Bid Documents at p. 57.

²¹ GWA Petition, GWA Docket 23-01, at p. 4.

²² Email from Theresa Rojas, GWA Counsel, to Fred Horecky, PUC ALJ, dated November 15, 2022, Procurement Bid Documents at p. 58.

²³ Id., at pgs. 60-66.

²⁴ Id., at pgs. 89-95.

²⁵ Id., at pgs. 116-118.

²⁶ Id., at pgs. 131-133.

At present, DCA has estimated a grand total cost for this project of \$4,205,456.95 (not including the requested 10% contingency). A true and correct of the Ugum Procurement Cost Estimate is attached hereto as Exhibit "2".²⁷

In its cost estimate, DCA has also added a ten percent (10%) contingency of \$420,550.00 bringing the total estimated cost to \$4,626,050.00. However, the PUC need not determine the cost at the present time or make any authorization concerning the allowable cost for this procurement. When GWA returns to the Commission for approval of the award and contract, the PUC will make its determination concerning total allowable cost for the project.

5. Board Resolution

In GWA Resolution No. 03-FY2023, the Guam Consolidated Commission on Utilities ["CCU"] found that "rehabilitation of the Ugum Surface Water Treatment Plant is necessary to ensure the efficient operation of the plant and the continued provision of safe drinking water to GWA customers in Southern Guam."²⁸ The CCU authorized GWA management to submit a petition to the PUC for approval of the procurement of materials and construction services for the rehabilitation of the Ugum SWTP.²⁹

RECOMMENDATION AND CONCLUSION

²⁷ Email from Theresa Rojas, GWA Counsel, to Fred Horecky, PUC ALJ, dated November 11, 2022, Procurement Cost Estimate.

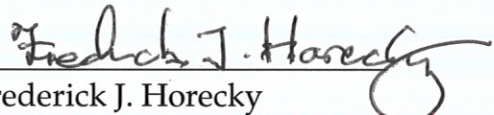
²⁸ GWA Resolution No. 03-FY2023, Relative to Requesting Approval to Procure Construction Services Relative to the Ugum Service Water Treatment Plant Rehabilitation, adopted and approved on October 25, 2022, at Exhibit A-2.

²⁹ Id. at Exhibit A-3.

Based upon the documentation in the record, GWA has justified the issuance of an IFB to procure construction services and supplies to rehabilitate the Ugum Service Water Treatment Plant. Having reviewed the Petition of GWA and the procurement documents presented, the ALJ concludes that the PUC should approve and authorize the issuance of the Invitation for Bid for the rehabilitation project. Once the procurement process has been completed, the PUC will have a further opportunity to assess the proposal presented and its cost.

A Proposed Order is submitted herewith for the Commissioners' consideration.

Respectfully submitted this 21st day of November, 2022.


Frederick J. Horecky
Chief Administrative Law Judge

0 - GENERAL CONDITIONS						
Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
0-A	Mobilization/Demobilization, permitting, Insurance, Bonds and contractors administration	1	LS	\$	\$ 269,069.60	General Conditions
Sub-total - General Conditions					\$ 269,069.60	
1 - RIVER INTAKE						
Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
1-A	Remove pumps/motors #1 and #3 (outer left and right pumps) and replace with new pumps/motors, including accessories, complete in place	1	LS	\$	\$ 240,000.00	432321.13
1-B1	Remove existing MCC for pump #1 and install new VFD including accessories, complete in place	1	LS	\$	\$ 11,000.00	262923
1-B2	Remove existing VFD screens for pump #2 and pump #3 and replace with new complete in place	1	LS	\$	\$ 10,000.00	262923
1-C	Remove existing flow meter and replace with new complete in place	1	LS	\$	\$ 10,000.00	407113
1-D	Remove two (2) existing filters, piping, and fittings from the flange connection at the main discharge piping, install two (2) blind flanges to flange ends of the remaining main discharge piping, demolished pipe/fittings to be disposed of at the site.	1	LS	\$	\$ 7,500.00	17320
Sub-total - RIVER INTAKE					\$ 278,500.00	
2 - SETTLING BASINS						
Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
2-A	Remove two (2) existing automatic sluice gates for flocculation basins and replace with new manually operated sluice gates, (work will require draining of water inside the basins), including accessories, complete in place	1	LS	\$	\$ 40,000.00	400557

2-B	Remove eight (8) existing automatic sluice gates for sedimentation tanks and replace with new manually operated sluice gates, (work will require draining of water inside the tanks), including accessories, complete in place	1	LS	\$	\$ 160,000.00	400557
2-C	Remove and replace sludge collection system (chain and flight) at two (2) contact basins and two (2) recycle basins, including accessories, complete in place	1	LS	\$	\$ 272,000.00	464311
2-D	Remove accumulated sludge inside the tank including disposal to Inarajan WTP drying beds	533	CYD	\$	\$ 63,960.00	22100
Sub-total - SETTLING BASINS					\$ 535,960.00	
3 - MEMBRAN ES						
Label	Description	Quantity	Pay Type	Unit Price	Bid price	Spec. Section
3-A	Provide the following spare parts delivered to the job site, inclusive of taxes and other miscellaneous fees.				\$1,318,380.00	See report
3-A1	Membrane Module, Spare S10N PVDF	864	EA	\$	\$	
3-A2	Manifold, Clover Top CS Nylon SS Stud-119006	220	EA	\$	\$	
3-A3	Manifold, Clover Bottom GFPP Duraprop	220	EA	\$	\$	
3-A4	Clip, Clover Module CS/CSII	870	EA	\$	\$	
3-A5	Gasket, Bottom Clover EPDM 9710 3 Hole	220	EA	\$	\$	
3-A6	O-Ring, EPDM 9710 148.6MMx5.7MM Blue DT	100	EA	\$	\$	

3-A7	O-Ring, EPDM 9710 BS352 WRC Blue Dot	220	EA	\$	\$	
3-A8	Assembly, Valve MLD FILT ISOL Rack	220	EA	\$	\$	
3-A9	Nut, Hex M8x1.25MM 316SS 6H 800MPA	2000	EA	\$	\$	
3-A10	Washer, Spring M8x3.75MM Thk 316SS	2000	EA	\$	\$	
3-A11	Washer, Flat M8x17MM OD 316SS	2000	EA	\$	\$	
3-A12	Assembly, Insert CS NLY-GRP Rack Sea	220	EA	\$	\$	
3-A13	9 Clover stainless Steel Membrane Racks	24	EA	\$	\$	
3-A15	On-Site Manufacturer's Technical Field Service for 10 days, including travel and all miscellaneous expenses	1	LS	\$	\$	
3-B	Remove two (2) existing electric chain hoists and replace with two (2) 1-ton variable speed hoists with single controller each, including necessary electrical work, complete in	1	LS	\$	\$ 18,000.00	412223.19
3-C	Remove and replace the rusted existing steel angle iron and plates between Cell #1 and Cell #2. Contractor to submit shop drawings for approval	1	LS	\$	\$ 25,000.00	55000
Sub-total - MEMBRAN ES					\$1,361,380.00	
4 - PIPE GALLERY/ GENERAT OR ROOM						
Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
4-A	Remove and replace existing aluminum access doors, jambs, and hardware in the piping room and in the generator room, complete in place.	1	LS	\$	\$ 7,500.00	81116
4-B	Provide spare Bray butterfly valves, pneumatic actuators, and status monitors as follows:				\$ -	400564

4-B1	16" Flanged Butterfly Valve, Series 30/31, complete with accessories	2	EA	\$	\$ 24,000.00	
4-B2	14" Flanged Butterfly Valve, Series 30/31, complete with accessories	3	EA	\$	\$ 24,000.00	
4-B3	12" Flanged Butterfly Valve, Series 30/31, complete with accessories	4	EA	\$	\$ 28,000.00	
4-B4	10" Wafer Style Butterfly Valve, Series 30/31, complete with accessories	2	EA	\$	\$ 14,000.00	
4-B5	8" Wafer Style Butterfly Valve, Series 30/31, complete with accessories	4	EA	\$	\$ 20,000.00	
4-B6	4" Wafer Style Butterfly Valve, Series 30/31, complete with accessories	2	EA	\$	\$ 6,000.00	
4-B7	2" Wafer Style Butterfly Valve, Series 30/31, complete with accessories	3	EA	\$	\$ 1,500.00	
4-B8	Pneumatic Actuator Part #92-2100-11300-532	5	EA	\$	\$ 6,000.00	
4-B9	Pneumatic Actuator Part #92-1600-11300-532	4	EA	\$	\$ 4,800.00	
4-B10	Pneumatic Actuator Part #92-1270-11300-532	2	EA	\$	\$ 2,400.00	
4-B11	Pneumatic Actuator Part #92-1190-11300-532	2	EA	\$	\$ 2,400.00	
4-B12	Pneumatic Actuator Part #92-1180-11300-532	4	EA	\$	\$ 4,800.00	
4-B13	Pneumatic Actuator Part #92-0630-11300-532	4	EA	\$	\$ 4,800.00	
4-B14	Status Monitors Part #50-0406-12610-532	14	EA	\$	\$ 2,800.00	
Sub-total - PIPE GALLERY/ GENERATOR ROOM					\$ 153,000.00	
5 - BACKWASH						

Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
5-A	Remove existing submersible transfer pumps and install new, see specs.	2	EA	\$	\$ 17,000.00	431311
5-B	Remove existing level sensor/level monitor and replace with new, see specs.	3	EA	\$	\$ 7,500.00	407276
5-C	Remove existing mixer and replace with new, see specs	1	EA	\$	\$ 10,000.00	464123
5-D	Remove existing flow meter and replace with new meter complete with screen cover protection	1	EA	\$	\$ 7,500.00	407113
5-E	Remove accumulated sludge inside the tank including disposal to Inarajan WTP drying beds	46	CYD	\$	\$ 5,520.00	22100
Sub-total - BACKWASH					\$ 47,520.00	
6 - NEUTRALI ZATION TANK/SLU DGE TANK						
Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
6-A	Replace submersible pump and nozzles within the tank (complete in place)	1	LS	\$	\$ 8,500.00	431311
6-B	Replace pH/Orp Meter	1	EA	\$	\$ 5,000.00	407513
6-C	Remove existing level sensor/level monitor and replace with new, see specs.	1	EA	\$	\$ 5,000.00	407276
6-D	Remove accumulated sludge inside the tank including disposal to Inarajan WTP drying beds	84	CYD	\$	\$ 10,836.00	22100
Sub-total - NEUTRALI ZATION TANK/SLU DGE TANK					\$ 29,336.00	

**7 -
THICKENER
SYSTEM**

Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
7-A	Remove existing thickener assembly and replace with new inclusive of complete drive assembly, with gear motor and weatherproof drive torque control. Drive unit is completely factory assembled, calibrated and tested, Walkway, beam supported (half the diameter), 36" wide with aluminum I-bar flooring, Center Drive platform, Aluminum handrail, Feedwell, Rake arms with plow blades and pickets, Operation and Maintenance manuals, Torque tube, Influent pipe, Finish paint, Weirs, FRP, Field service 2 days/1 trip	1	LS	\$	\$ 180,000.00	See report
7-B	Remove two (2) existing thickener pumps and replace with new pumps, see specs	1	LS	\$	\$ 20,000.00	432357
7-C	Remove accumulated sludge inside the tank including disposal to Inarajan WTP drying beds	125	CYD	\$	\$ 15,000.00	22100
Sub-total - THICKENER SYSTEM					\$ 215,000.00	
8 - OPERATIONS/CHEMICAL BUILDING						
Label	Description	Quantity	Pay Type	Unit Price	Bid Price	Spec. Section
8-A	Remove existing flow meter at sodium hydroxide feed system and replace with new	1	EA	\$	\$ 7,000.00	407513
8-B	Remove existing chemical pumps and replace with new for proper dosages	5	EA	\$	\$ 15,000.00	463342

8-C	Remove existing hydraulic lift and replace with new	1	LS	\$	\$ 15,000.00	See Report
Sub-total - OPERATIONS/CHEMICAL BUILDING					\$ 37,000.00	
9 – ADMINISTRATION BUILDING						
Label	Description	Quantity	Pay Type	Unit Price	Bid price	Spec. Section
9-B	Remove front door entrance and replace with new 3 ft-8.5" wide, aluminum swing door	1	LS	\$	\$ 3,000.00	81116
9-C	Renovate existing restrooms in the first and second floors. Renovation includes replacement of toilet bowls, sinks, and exhaust fans, complete in place.	1	LS	\$	\$ 24,000.00	102813
9-D	Remove leaking roof hatch cover at the Control Room and cover the opening with concrete.	1	LS	\$	\$ 6,000.00	See Report
Sub-total – ADMINISTRATION BUILDING					\$ 33,000.00	
BID PRICE TOTAL OF ALL ITEMS					\$ 2,959,765.60	
Overhead					\$ 295,976.56	
Profit					\$ 147,988.28	
Contingency					\$ 591,953.12	
GRT					\$ 209,773.39	
TOTAL					\$ 4,205,456.95	

Ugum Procurement					
Talofofo Guam					
25-Apr-22					
Estimate					
Item No.	Description (BASIC BID)	Qty	Unit	Unit Cost	Total Cost
0	GENERAL CONDITIONS		EA		\$ 269,069.60
1	RIVER/INTAKE		EA		\$ 278,500.00
2	SETTLING BASINS		EA		\$ 535,960.00
3	MEMBRANES		EA		\$ 1,361,380.00
4	PIPE GALLERY		EA		\$ 153,000.00
5	BACKWASH		EA		\$ 47,520.00
6	NEUTRALIZATION		EA		\$ 29,336.00
7	THICKENER		EA		\$ 215,000.00
8	OPERATIONS/CHEMICAL		EA		\$ 37,000.00
9	ADMIN		EA		\$ 33,000.00
	SUB-Total				\$ 2,959,765.60
	Overhead	1	ea	5%	\$ 147,988.28
	Profit	1	ea	10%	\$ 295,976.56
	Contingency			20%	\$ 591,953.12
	GRT	1	ea	5%	\$ 209,773.39
	Grand Total				\$ 4,205,456.95
