



**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. 21-FY2020**

**RELATIVE TO APPROVAL OF AMENDMENT FOR THE INDEFINITE DELIVERY/INDEFINITE QUANTITY PROFESSIONAL PROJECT/CONSTRUCTION MANAGEMENT SERVICES 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 is a Guam Public Corporation established and existing under the laws of Guam; and

**WHEREAS**, GWA awarded an Indefinite Delivery – Indefinite Quantity (ID-IQ) contract to Brown and Caldwell for Project Management /Construction Management services in the maximum amount of Seven Hundred Fifty Thousand Dollars (\$750,000.00); and

**WHEREAS**, GWA, as authorized by CCU Resolution 15-FY2020, is pursuing a Bond issuance to fund numerous water and wastewater system improvements, and that issuance requires the preparation of a Consulting Engineer’s Report (CER); and

**WHEREAS**, due to the delays in the PUC approval of GWA’s 5-Yr rate plan and other uncertainties, finalization of the CER has required additional reviews and revisions greater than provided for in the Task Order scope of work authorized under this ID-IQ; and

**WHEREAS**, finalization of the CER requires additional analysis to evaluate the potential impacts of the worldwide COVID-19 pandemic and subsequent updates not envisioned in the original scope of work; and

1           **WHEREAS**, preparation of a Cost of Service/Rate Design Study (COS/RDS) is required  
2 by Guam Public Utilities Commission (PUC) GWA Docket 19-08 Ordering Provision 7 as part  
3 of the GWA 5-year rate plan approval;

4  
5           **WHEREAS**, management seeks CCU approval to extend Task Order 1 issued to Brown  
6 and Caldwell under this IDIQ and increase funding accordingly to 1) Complete the CER as  
7 provided for in the original Task Order and as amended under its Amendment #2 and 2) identify  
8 funds based on the preliminary scope and fee proposal from Brown and Caldwell in anticipation  
9 of a Task Order to prepare a COS/RDS; and

10  
11           **WHEREAS**, the total amount of the Task Order 1 Amendment 2 equals Eighty-Six  
12 Thousand Sixty-Five Dollars (\$86,065.00) (See Exhibit A) and the Task Order for a COS/RDS is  
13 anticipated to be Four Hundred Fifty Eight Thousand Four Hundred Twenty Dollars  
14 (\$458,420.00) (See Exhibit B) for a total of Five Hundred Forty-Four Thousand Four Hundred  
15 Eighty-Five Dollars (\$544,485.00), with a ten percent (10%) contingency of Forty-Five  
16 Thousand Eight Hundred Forty-Two Dollars (\$45,842.00) for the COS/RDS only.

17  
18           **WHEREAS**, Amendment #1 to the IDIQ is necessary to increase the maximum contract  
19 amount to enable execution of the Task Order 1 Amendment 2 and the COS/RDS, the total  
20 amount of increase being Five Hundred Forty-Four Thousand Four Hundred Eighty-Five Dollars  
21 (\$544,485.00), for a new total contract amount of One Million Two Hundred Ninety-Four  
22 Thousand Four Hundred Eighty-Five Dollars (\$1,294,485.00);

23  
24           **WHEREAS**, funding for the CER will be from GWA Bond funds applicable to the  
25 project and funding for the COS/RDS will be from Internally Funded Capital Improvement  
26 Project and other funding sources as they become available.

27  
28           **NOW BE IT THEREFORE RESOLVED**, that the Consolidated Commission on  
29 Utilities does hereby approve the following:

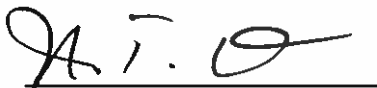
- 30           1. The recitals set forth above hereby constitute the findings of the CCU.  
31  
32

- 1           2. The CCU finds that the CER is required as part of GWA's pursuit of Bond  
2           measure to fund numerous system water and wastewater system improvements.  
3           and COS/RDS is required by the PUC's Docket 19-8 Ordering Provision 7.  
4           3. The CCU hereby approves the funding increase for additional project and contract  
5           support services for the current CER and the COS/RDS in the amount of Five  
6           Hundred Forty-Four Thousand Four Hundred Eighty-Five Dollars (\$544,485.00),  
7           plus a ten percent (10%) contingency of Forty-Five Thousand Eight Hundred  
8           Forty-Two Dollars (\$45,842.00) for the COS/RDS only.  
9           4. The CCU hereby further approves the total funding authorization for the IDIQ  
10           contract with Brown and Caldwell to an amount of One Million Two Hundred  
11           and Ninety-Four Thousand Four Hundred Eighty-Five Dollars (\$1,294,485.00).  
12           5. The CCU hereby further approves the funding for the CER from GWA Bond  
13           funds applicable to the project and approves the funding for the COS/RDS from  
14           Internally Funded Capital Improvement Project and other funding sources as they  
15           become available.  
16           6. The CCU hereby further approves management to pursue notification to the PUC  
17           for a contract exceeding One Million Dollars (\$1,000,000.00), with the bond-  
18           funded portion of the contract totaling less than One Million Dollars  
19           (\$1,000,000.00) and the remainder of the contract funded by USEPA grants.

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

23  
24           **DULY AND REGULARLY ADOPTED**, this 24<sup>th</sup> day of March, 2020.

25  
26           Certified by:

27           

28           **JOSEPH T. DUENAS**  
29           Chairperson

25           Attested by:

27           

28           **MICHAEL T. LIMTIACO**  
29           Secretary

30 //

**SECRETARY'S CERTIFICATE**

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

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

AYES: 5  
NAYS: 0  
ABSTENTIONS: 0  
ABSENT: 0



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# Exhibit A

This is **EXHIBIT K**, consisting of 3 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services – Task Order Edition** dated June 27, 2019.

## Amendment No. 2 To Task Order No. 1 – Rev 1

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### 1. Background Data:

- a. Effective Date of Task Order: June 27, 2019
- b. Owner: Guam Waterworks Authority
- c. Engineer: Brown and Caldwell
- d. Specific Project: Indefinite Delivery/Indefinite Quantity (ID/IQ) For Professional Project/Construction Management Services - Consultant Engineers Report for GWA 2020 Bond issuance

### 2. Description of Modifications

- a. The original Task Order No. 1 provided for a Consulting Engineer's Report (CER) completion date of September 28, 2019 and included submittal and review of two draft reports. The project has been delayed significantly by the Rate Plan review by the PUC's rate consultant. Based on the extended negotiations, the rate plan was approved February 27, 2020. The project completion date has also been negatively impacted by the COVID-19 outbreak, requiring an additional report update and financial analysis. Ultimately up to ten report drafts may be required and the corresponding completion date for the Report may extend until May 2020.
- b. The Engineer shall perform the following additional services:
  - 1. Provide additional Task Management Services for the extended project duration.
  - 2. Complete up to 9 additional drafts of the CER to enable the Bond Working Group to proceed with the Preliminary Official Statement (POS) and enable the CER and POS to be completed as soon as possible following the PUC's Rate Plan Approval and COVID-19 analysis.
  - 3. Include scenario modeling to evaluate the impacts to GWA of the COVID-19 outbreak and update the Report accordingly.
  - 4. Extend the services of the Financial Consultant subcontractor (GRG Group) to cover the work described under items 2.b.2 and 2.b.3.
- c. Additional Services:
  - 1. GWA has also elected to include the Additional Services – Ratings Agency Presentation Attendance item 6.A.2.b. Participation by Financial Consultant of the Task Order in the scope of work to be provided. The originally proposed costs have been increased to include additional information required by the PUC Stipulation and COVID-19 scenario summaries.

d. The Schedule for Rendering services under this Task Order is modified as follows:

<b>Party</b>	<b>Action</b>	<b>Original Schedule Date</b>	<b>Revised Schedule Date</b>
Engineer	Furnish up to nine additional report drafts for review and use in preparing the POS to Owner. Update report at each submittal to incorporate Owner and Bond Working Group comments. Include final update to address COVID-19 issues	Not Included in Original Scope	Before April 17, 2020
Owner	Submit comments regarding final draft Report to Engineer.	September 13, 2019	Before April 30, 2020
Engineer	Furnish [5] copies of the FINAL Report and other Study and Report Phase deliverables to Owner.	September 28, 2019	Before May 30, 2020
Engineer	Furnish [5] copies of the Certificates of Independent Engineer to Owner.	October 3, 2019	Before June 30, 2020
Engineer	Furnish input as requested by Owner in support of attendance at the Rating Agency Presentations	Original Scope – Additional Services	Before July 30, 2020

d. For the Additional Services set forth above, Owner shall pay Engineer the following additional compensation:

<b>Description of Service</b>	<b>Additional Amount</b>	<b>Basis of Compensation</b>
1. Basic Services		
a. Task 1 – Task Management	\$12,646	Lump Sum
b. Task 2 – Data Gathering	\$0	Lump Sum
c. Task 3 – Analysis and Preparation of CER	\$58,116	Lump Sum
d. Task 4 – Preparation for Ratings Presentations	\$0	Lump Sum
e. Task 5 – Additional Services – Attendance at Ratings Presentations	\$11,000	Lump Sum
f. Expenses	\$0	Lump Sum
g. GRT	\$4,303	Lump Sum
<b>TOTAL ADDITIONAL COMPENSATION (lines 1.a-f)</b>	<b>\$86,065</b>	

Exhibit K – Amendment to Task Order

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 and American Society of Civil Engineers. All rights reserved.

**3. Task Order Summary (Reference only)**

a.	Original Task Order amount:	\$188,490
b.	Net change for prior amendments:	\$0
c.	This amendment amount:	\$86,065
d.	Adjusted Task Order amount:	\$274,555

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

Owner and Engineer hereby agree to modify the above-referenced Task Order as set forth in this Amendment. All provisions of the Agreement and Task Order not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is March 24, 2020.

OWNER:

ENGINEER:

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

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

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

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

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

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

TASK ORDER FORM

Exhibit B

This is Task Order No. XX, consisting of 5 pages.

Task Order

In accordance with Paragraph 1.01 of the Agreement Between Owner and Engineer for Professional Services, dated June 17, 2019 ("Agreement"), Owner and Engineer agree as follows:

Preliminary Task Order Proposal

1. Background Data

- a. Effective Date of Task Order: \_\_\_\_\_
- b. Owner: Guam Waterworks Authority
- c. Engineer: Brown and Caldwell
- d. Specific Project (title): Indefinite Delivery/Indefinite Quantity (ID/IQ) for Professional Project/Construction Management Services
- e. Specific Project (description): Indefinite Delivery/Indefinite Quantity (ID/IQ) For Professional Project/Construction Management Services – Cost of Service/Rate Design Study

2. Services of Engineer

- A. The following presents a description of the expected scope of services under the ID/IQ for a Cost of Service/Rate Design Study. The services proposed will be finalized upon receipt of the detailed scope of work provided by GWA.
- B. The preliminary services proposed to be provided or furnished by Engineer under this Task Order are:

SCOPE OF WORK

This task will be performed by Brown and Caldwell under the GWA ID/IQ Project Management/Construction Management contract herein referred to as "Engineer".

Task 1: Task Management

**Approach:** Engineer staff will manage the scope, schedule, and budget associated with the work described in this Task Order to ensure that this work is managed in a manner that meets contract requirements. This includes, but is not limited to, management of documents, change, risk, and quality assurance and control. This task shall include regular progress conference calls (at least every two weeks) or meetings between Consultant and GWA personnel to review project progress, issues to be resolved,



early study results, etc. This task covers efforts associated with the internal quality control and technical review process. Internal checking or peer review of all deliverables will also be performed

**Engineer Responsibilities:** Engineer staff will manage the scope, schedule and budget.

**GWA Responsibilities:** GWA staff will attend meetings, review progress reports, process pay and change order requests and assist as necessary towards the construction project completion.

### **Task 2: Data Gathering**

**Approach:** Engineer staff will request and review available information required for the project completion.

**Engineer Responsibilities:** Request and review documentation.

**GWA Responsibilities:** Provide requested information.

### **Task 3: Analysis and Preparation of Cost of Service/Rate Design Study**

**Approach:** Engineering team will prepare a Cost of Service/Rate Design Study (COS) for presentation to the CCU and PUC as necessary. The COS study will primarily be completed by BC's financial Subconsultant FG Solutions. FG Solutions preliminary proposal for the work is included as Attachment 1.

The Engineering team will develop up to two drafts of the COS study for GWA review and comment. The Engineer team will coordinate with other GWA financial consultants during preparation of the COS Study.

**Engineer Team Responsibilities:** Prepare draft and final versions COS study Report; coordinate with GWA and GWA's financial consultants.

**GWA Responsibilities:** Provide information as requested by the Engineer, review draft COS study, provide collective GWA comments on up to two draft reports; participate in conference calls and attend meetings and workshops.

**Products:** Up to two draft COS Study reports and final report.

### **SCHEDULE**

The Engineer will conduct the effort described in this Task Order beginning on April 1, 2020 to produce the final deliverables by February 28, 2021.

- C. Resident Project Representative (RPR) Services (Excluded)
- D. Designing to a Construction Cost Limit (Excluded)
- E. Other Services (Excluded)

F. All of the services included above comprise Basic Services for purposes of Engineer's compensation under this Task Order.

**3. Additional Services**

A. Additional Services that may be authorized or necessary under this Task Order are:

N/A.

**4. Owner's Responsibilities**

Owner shall have those responsibilities set forth in Article 2 of the Agreement and in Exhibit B.

**5. Task Order Schedule**

In addition to any schedule provisions provided in Exhibit A or elsewhere, the parties shall meet the following schedule:

<u>Party</u>	<u>Action</u>	<u>Schedule</u>
Engineer	Furnish [ 2 ] review copies of the COS Study Report and other Study.	Within [ 250 ] days of the Effective Date of the Task Order.
Owner	Submit comments regarding first draft Report and other Study and Report Phase deliverables to Engineer.	Within [ 14 ] days of the receipt of first draft Report and other Study and Report Phase deliverables from Engineer.
Engineer	Furnish [ 5 ] review copies of the final COS Study Report.	Within [ 30 ] days of the receipt of Owner's comments regarding the final draft Report.

**6. Payments to Engineer**

A. *The following presents the preliminary estimate for the work, subject to revision upon the final scope of work to be provided by GWA.*

Owner shall pay Engineer for services rendered under this Task Order as follows:

Description of Service	Amount	Basis of Compensation
1. Basic Services (Section 2.A above)		
a. Task 1 – Task Management	\$18,500	Lump Sum
b. Task 2 – Data Gathering	\$22,000	Lump Sum
c. Task 3a – BC Services	\$98,000	Lump Sum
Task 3b – FG Solutions Subcontract	\$246,000	Lump Sum
Task 3c – Allowance for Undefined Scope	\$50,000	Lump Sum
d. Expenses	\$1000	Lump Sum
e. GRT	\$22,920	Lump Sum
<b>TOTAL COMPENSATION (lines 1.a-f)</b>	<b>\$458,420</b>	
2. Additional Services -	- 0 -	

Compensation items and totals based in whole or in part on Hourly Rates or Direct Labor are estimates only. Lump sum amounts and estimated totals included in the breakdown by phases incorporate Engineer's labor, overhead, profit, reimbursable expenses (if any), and Consultants' charges, if any. For lump sum items, Engineer may alter the distribution of compensation between individual phases (line items) to be consistent with services actually rendered, but shall not exceed the total lump sum compensation amount unless approved in writing by the Owner.

B. The terms of payment are set forth in Article 4 of the Agreement and in the applicable governing provisions of Exhibit C.

**7. Consultants retained as of the Effective Date of the Task Order: None**

**8. Other Modifications to Agreement and Exhibits: None**

**9. Attachments: None**

**10. Other Documents Incorporated by Reference: None**

## 11. Terms and Conditions

Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is [ ].

OWNER:

ENGINEER:

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

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

Print Name: Miguel C. Bordallo, PE

Print Name: Raymond N. Matasci, PE

Title: General Manager

Title: Senior Vice President

Engineer License or Firm's  
Certificate No. (if required): \_\_\_\_\_  
State of: \_\_\_\_\_

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

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

Name: Kurt Bilz

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

Title: Project Manager

Address: \_\_\_\_\_

Address: 414 West Soledad, No. 602  
Hagatna, GU 96910

E-Mail  
Address: \_\_\_\_\_

E-Mail  
Address: kbilz@brwncald.com

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

Phone: (671) 300-4221

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Task Order Form

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Page 5

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**Attachment No. 1**  
**To Exhibit B**

**PRELIMINARY SCOPE OF WORK AND FEE ESTIMATE FOR  
COST OF SERVICE/RATE DESIGN STUDY**

As part of the Guam Waterworks Authority's (GWA) efforts to comply with the 2020 PUC Stipulation, GWA has retained the services of Brown and Caldwell (BC) to complete several of the studies contained in the 2020 PUC Stipulation (Guam Public Utilities Commission Docket 19-08). The 2020 PUC Stipulation outlines a series of seven studies, collectively the Stipulated Provision No. 1 Analytical Studies (Analytical Studies) in this Scope of Work. Study No. 3 is the Cost of Service/Rate Design (COS) Study.

BC has asked FG Solutions, LLC (FG Solutions) to prepare a scope of work for the COS Study. The scope of work and fee estimate recognizes that FG Solutions has previously completed separate water and wastewater Cost of Service/Rate Design analyses, and would be able to leverage these analyses for more efficient and more timely completion. **This scope of work and fee estimate is preliminary and will be finalized upon receipt of the final Task Order scope from GWA.**

The 2020 PUC Proposed Stipulation states that the COS Study must:

- Examine the allocation of costs to customer classes of both the water and wastewater systems
- Present alternatives to GWA's current rate designs to support low-income affordability and water conservation objectives

With respect to the COS Study, all of the Analytical Studies except Study No. 5 (Capital Financing Study) are interrelated. The Scope of Work identifies proposed interfaces between these studies and the parties completing them, with the overall goal of meeting the requirements of the 2020 PUC Stipulations as efficiently and as timely as possible.

Specifically, the studies that are interrelated with respect to the COS Study are:

- Study No. 1, Demand Forecasting Study. Projected demands resulting from the Demand Forecasting Study are a key input to the COS Study. As an example, the Demand Forecast Study is also required to consider whether the 20 largest hotels should be evaluated individually. As a result, GWA may decide to evaluate changes to its customer classes. The customer classes fundamentally determine how the cost of service analysis is structured.
- Study No. 2, Water Loss Reduction Study. The outcome of this study will also influence water demands, wastewater flow, and wastewater strength. Water demands, wastewater demands, and wastewater strengths are also key inputs to the COS Study. Changes in water demands and wastewater strength will affect the revenue requirement from each customer class, particularly if these changes are not uniform among customer classes. Further, the cost of implementing the water loss reduction measures and the resulting decrease in purchased water costs will change the revenue requirement.
- Study No. 4, Affordability Study. In conjunction with the COS Study, the Affordability Analysis Study requires addressing affordability through development of a Customer Assistance Program and revision of its current residential lifeline rate structure.
  - The rate design efforts are included in both the COS Study and the Affordability Study. Since the Affordability Study is being prepared in conjunction with the COS Study, that is appropriate.
  - Rate design efforts should be completed with the cost of service analysis because rate design alternatives can't be evaluated without reference to the cost of service analysis. Any inter-class

## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

subsidies resulting from rate design alternatives will change the revenue requirement for all other customer classes. To evaluate these requires a direct connection between the cost of service analysis and the rate design, which is the cost of service analysis and rate design were combined into the COS Study to begin with.

- Study No. 6, Capitalized Labor Study. This Study could result in shifts in labor expense between operation and maintenance (“O&M”) and capital. This will affect the revenue requirement analysis which would have a flow-through effect on the COS Study.
- Study No. 7, Cesspool/Septic Tank Elimination Study. The results of this study will impact the COS Study due to the changes in GWA wastewater customer base, and how costs to eliminate cesspools and septic tanks would be recovered.

The five studies will be completed simultaneously, and all of them will impact the COS Study. Accordingly, this Scope of Work includes time to make revisions to the analysis on an ongoing basis as results from the various studies become available. It is likely that the decisions to be made in the various studies will require knowledge of the rate impacts, so that the best decisions for GWA can be made.

This Scope of Work is focused on the expectation that GWA can secure appropriate funding for the COS Study, as required by the 2020 PUC Stipulation.

### **SCOPE OF WORK**

#### **Task 1: Task Management**

**Approach:** FG Solutions will prepare monthly invoices and status reports, and coordinate in the PMO’s work on this task.

#### **Task 2: Prepare Cost of Service /Rate Design (COS) Study**

##### **Approach:**

The revenue requirement is a key input to the COS Study. GWA is completing a Revenue Requirement Analysis as part of its Consulting Engineers Report. After the Consulting Engineers Report is complete, the Analytical Studies will result in changes to the revenue requirement. It is not clear how GWA will update the revenue requirement to incorporate the results of the Analytical Studies as the Analytical Studies progress. This scope assumes that GWA’s Revenue Requirement consultant will update the revenue requirement as the Analytical Studies are completed and deliver updated Revenue Requirement Analyses to FG Solutions.

For the cost of service analysis, Task 2.1 identifies the interfaces are between the other Analytical Studies and COS Study.

Task 2.2 describes FG Solution’s scope to complete the cost of service analysis, which is a part of the COS Study. The cost of service analysis will define the revenue requirement for each customer class. In Task 2.2, FG Solutions will develop the cost of service analysis, based on inputs received from the revenue requirement analysis. The cost of service analysis and rate design portions of the COS both interface with the Affordability Analysis in this task.

In the next step, FG Solutions will develop rate design alternatives, as described in Task 2.3, as part of the COS Study. The cost of service analysis and rate design portions of the COS both interface with the Affordability Analysis in this task.

#### **Task 2.1: Import Revenue Requirement Analysis and Update Existing Revenue Requirement Portions of COS Model**

FG solutions will import GWA’s Revenue Requirement Analysis associated with its Consulting Engineers Report, and use the imported analysis to create the revenue requirement inputs to the cost of service analysis.

## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

FG Solutions anticipates a number of revisions to the revenue requirement between the completion of the Consulting Engineer's Report and the interrelated Analytical Studies. As work on the Analytical Studies proceeds, FG Solutions will update its analysis accordingly. FG Solutions will work with GWA's Revenue Requirement consultant to facilitate this task.

These revisions could include:

- Incorporating the results of GWA's 2020 True-Up Analysis
- Incorporating the results of the Analytical Studies that affect the revenue requirement. Particularly, this would include:
  - Demand Forecasting Study, which will result in updated water purchase and electricity costs.
  - Water Loss Reduction Study, which will result in updated water purchase and electricity costs, as well as the costs to implement water loss reduction measures.
  - Affordability Analysis Study, which will result in costs to implement Customer Assistance Programs.
  - Capitalized Labor Study, which will change which expenses are considered O&M and which are considered capital.
  - Cesspool/Septic Tank Elimination Study, which will add implementation costs and potentially change the wastewater system customer base.

The Fee Estimate is based on completion of the revenue requirement updates by others. FG Solutions will rely on a revised Revenue Requirement Analyses and import as needed. Importing five revisions to the Revenue Requirement Analysis iterations is included in the Fee Estimate.

### Task 2.2. Cost of Service Analysis

#### Task 2.2.1. Customer Class Review

FG Solutions will update its Cost of Service analysis which includes the following customer classes:

- Water: Residential, Commercial, Federal, Government, Hotel, Golf, Agriculture, Irrigation, and Private Fire Protection
- Wastewater: Residential, Commercial I, Commercial II & Hotel, Commercial III, and Government

FG Solutions will work with the GWA and the parties responsible for completion of the Analytical Studies to identify whether changes to GWA's customer classes will be proposed. It is anticipated that the proposed evaluations of residential rates will require evaluation of one additional water customer class and one additional wastewater customer class, which is incorporated into the Fee Estimate below. Revisions to include more than one additional water and one additional wastewater customer class would be considered additional services. If customer class revisions are evaluated, the fee estimate assumes that GWA will modify its customer and water use data to reflect the proposed customer class revisions.

#### Task 2.2.2. COS Analysis Data Request and Compilation of Data

FG Solutions will prepare a data request for the cost of service analysis, and would compile data received from GWA. FG Solutions will work with GWA and BC to identify data gaps, and to identify whether estimates or placeholders would be needed if requested data are not available. The fee estimate is based on the majority of the requested being readily available and being delivered within 30 days of request. The fee estimate is also based on receipt of a single set of projected water demand data arising from the Water Demand Forecasting Study.

#### Task 2.2.3. Update Cost of Service Analysis

FG Solutions will update the cost of service analysis, to produce a revenue requirement for each customer class. The revenue requirement for each customer class would be compared with rate revenues from each customer

## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

class to identify inter-class subsidies.

FG Solutions will update the cost of service analysis to reflect updated data and updated cost allocation factors. FG Solutions will work with GWA and BC staff to review cost allocation factors used in 2016, and evaluate appropriate changes to cost allocation factors and methodology.

Up to five iterations of the cost of service analysis will be performed corresponding to changes in the revenue requirement described in Task 2.1.

### Task 2.2.4. Prepare Cost of Service Analysis Report

FG Solutions will prepare draft, final draft, and final reports summarizing the results of the cost of service analysis. All deliverables will be in electronic format. The draft and final draft reports will be in editable electronic format and the final report will be in PDF form. The cost of service analysis calculations will be attached as appendices to the report. Hard copies of draft, final draft, and final reports will not be provided.

The cost of service analysis report will be prepared simultaneously with the rate design analysis report.

## Task 2.3. Rate Design Alternatives

### Task 2.3.1. Clarify Rate Design Parameters and Alternatives

At the project outset, FG Solutions will work with BC and GWA to establish rate design parameters and alternatives. This would include defining possible rate design alternatives to evaluate. This is important to do at the outset to inform the cost of service analysis, and also the Affordability Study (2020 PUC Stipulation Study No. 4).

In this initial work, GWA will also articulate what GWA's low-income affordability and water conservation goals are, if known at the time. See Task 2.3.4 for further clarification.

The purpose of this evaluation at the project outset is to streamline the interrelated being prepared by multiple parties and to ensure that the COS Study meets the PUC's stated requirement of addressing GWA's low-income affordability and water conservation goals.

### Task 2.3.2. Rate Design Alternatives Data Request and Compilation of Data

FG Solutions will prepare a data request for the rate design alternatives analysis, and would compile data received from GWA. FG Solutions will work with GWA and BC to identify data gaps, and to identify whether estimates or placeholders would be needed if requested data are not available.

### Task 2.3.3. Develop Rate Design Alternatives

For the purposes of this scope of work and fee estimate, rate design alternatives to be developed for GWA's consideration will include the following:

- Developing a third residential rate tier
- Developing fire protection rates
- Developing consumption-based residential wastewater rates
- Revising the lifeline rate structure for both water and wastewater (see Task 2.3.4)
- Rate structure associated with a proposed Customer Assistance Program for both water and wastewater
- Two additional alternatives to be determined during project inception or during the initial three months of the project.

FG Solutions will update its existing rate model to develop the third residential rate tier, fire protection rates, and a consumption-based residential wastewater rate. FG Solutions will develop rate design calculations one revision to the lifeline rate program, one proposed Customer Assistance Program alternative, and the two additional rate design alternatives.



## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

FG Solutions will develop a rate transitioning alternative to provide a phasing in of revised rate structures, with the intent to lessen the amount of "rate shock" an individual customer might experience as rate structure are changed. Up to two iterations of a rate transitioning alternative are included in the fee estimate.

FG Solutions will update the rate design calculations for up to five iterations of the revenue requirement analysis, as the results of the other Analytical Studies become available.

The fee estimate for this task covers the rate design calculations associated with changes to the lifeline rate structure and the Customer Assistance Program. Identification of potential changes to the lifeline rate structure and identification of the Customer Assistance Program is excluded from this task and is instead addressed in Task 2.3.4. The fee estimate also is based on a consumption-based single-family residential wastewater rate structure similar to that evaluated in 2016, where all metered water use is billed up to a monthly cap.

### Task 2.3.4. Identify Low-Income Affordability Rate Structure Alternatives

FG Solutions will work with GWA, BC, and Affordability Study Consultant to identify low-income affordability objectives, if they are not already established at the outset of the project.

In order to do whatever it is we're supposed to do, this is what we're going to do.....FG Solutions will perform a limited benchmarking exercise of up to eight utilities to identify low-income affordability programs currently in place. Selection of the eight utilities will be completed jointly by GWA, BC, FG Solutions, and the Affordability Study Consultant. One of the eight utilities will be Seattle Public Utilities, because of their approach to providing rate relief for tenants that are not directly charged a water bill by the utility.

After development of these low-income affordability rate structure alternatives, FG Solutions will work with the Affordability Study Consultant estimate participation rates. FG Solutions will use the anticipated participation rates as an input to the revenue requirement component of the cost of service analysis.

### Task 2.3.5. Monthly Bill Comparisons

The purpose of this task is to identify the extent to which GWA customers will see increases or decreases to water and wastewater bills as a result of rate changes.

As a part of the rate design analysis, FG Solutions will prepare a monthly bill comparison based on current and proposed bills for GWA's customers. The monthly bill comparison will identify, for all GWA accounts, the percentage changes to the customer's respective water and wastewater bills, resulting from changes in the rate structures. This part of the rate design analysis will be done to the extent data are available, and will rely on a 12-month export from GWA of account-by-account water bills, wastewater bills, water meter size, customer class, and billed water consumption. The output of this task is the percentage of customers with changes in monthly bills in grouped ranges (for example, x% of customers will see monthly bill increases between 0% and 5%, y% of customers will see monthly bill increases between 5% and 10%, etc.).

### Task 2.3.6. Comparison with Analogous Utilities

FG Solutions will also prepare a comparison of GWA's current and projected water and wastewater bills with up to six analogous utilities for four example customers.

### Task 2.3.7. Prepare Rate Design Analysis Report

FG Solutions will prepare draft, final draft, and final reports summarizing the results of the rate design analysis. All deliverables will be in electronic format. The draft and final draft reports will be in editable electronic format and the final report will be in PDF form. The rate design analysis calculations will be attached as appendices to the report. Hard copies of draft, final draft, and final reports will not be provided.

The rate design report will be prepared simultaneously with the cost of service analysis report.

## **Task 3: Meetings and Presentations**

### **Approach:**

## Guam Waterworks Authority Program Management Services PUC Stipulations 2020

FG Solutions staff will attend two meetings on Guam during separate trips. The first meeting is to present findings of the COS Study as described in the Stipulation to the CCU. The second meeting to present findings of the COS Study to the PUC.

In a previous 2018 proposal, FG Solutions was asked by BC to provide a proposal for FG Solutions to facilitate a series of workshops with the CCU and GWA management with a total workshop duration of 4 to 8 hours. The purpose of the workshop was to facilitate an in-depth discussion of rate structure alternatives intended to result in policy direction from the CCU. The proposed CCU meeting in this current scope of work does not include the series of workshops and is limited to presenting the findings of the COS Study. Should GWA wish to hold these workshops as previously proposed, this can be done as an additional service.

### Task 3.1: CCU Meeting (First of Two Trips)

FG Solutions will develop the PowerPoint presentation for the CCU Meeting.

- Develop draft outline of the CCU presentation for review by GWA staff.
- Develop the presentation in PowerPoint format.
- Participate in phone calls with GWA staff in advance of the CCU Meeting.

#### Other Items:

Any photos, maps or graphics related to the capital improvement plan or existing facilities to be used in the presentation will be provided by GWA or BC.

It is assumed that GWA or BC will have a projector and laptop available for the presentation.

FG Solutions's consultants Debi Fortin and Art Griffith will travel to Guam and present findings of the COS Study at the CCU Meeting. It is anticipated for the purposes of the fee estimate that the CCU meeting would be held on a Tuesday. Work completed during this time is expected to include:

- Various meetings with GWA staff and/or others related to water and wastewater rates.
- Continued preparation for the CCU meeting as required based on the results of meetings with GWA staff while on Guam.
- Attendance and presentation at the CCU meeting.
- As time permits after the CCU meeting, documenting the results of the meeting and meeting with GWA staff in order to discuss the next steps.
- After completion of the CCU meeting, FG Solutions will document the results of the Workshop, decisions made, and anticipated next steps.

### Task 3.2: PUC Meeting (Second of Two Trips)

After making revisions, if any (see Task 4) resulting from the CCU Meeting, FG Solutions will revise the presentation to be appropriate for the PUC meeting.

FG Solutions's consultants Debi Fortin and Art Griffith will travel to Guam and present findings of the COS Study at a PUC meeting.

### Task 4: Post CCU Workshop Revisions

#### Approach:

The purpose of Task 4 is to incorporate CCU feedback the CCU meeting and make revisions to the COS Study. FG Solutions anticipates that CCU feedback could require changes to:

- The Revenue Requirement Analysis
- Water and wastewater rate structure alternatives

Guam Waterworks Authority  
Program Management Services PUC Stipulations 2020

- The required extent of the modifications to the model and report following the CCU meeting are not known. Therefore, FG Solutions proposes to prepare a specific scope and budget estimate for this task (if necessary) after the CCU meeting, to be added to this contract via Amendment.

**FEE ESTIMATE**

This scope of work will be performed for a cost not to exceed \$214,890 without written consent from GWA. This fee estimate does not include any payment of Guam's Gross Receipts Tax. The fee estimate is based on completion of work between May 1, 2020 and March 31, 2021. FG Solutions updates its hourly rates on January 1 of each year by an inflationary amount of 3% per year.

PRELIMINARY

Guam Waterworks Authority  
 Program Management Services PUC Stipulations 2020

Task	Labor Hours (Notes 1 and 2)		Labor Budget	Expenses (Note 3)	Total Budget
	Griffith	Fortin			
Task 1. Project Management	4	12	\$3,100		\$3,100
Task 2. Cost of Service and Rate Design Study					
2.1. Import Revenue Requirement Analysis and Update Existing Revenue Requirement Portion of COS Model	20	64	\$16,240		\$16,240
2.2. Cost of Service Analysis					
2.2.1. Customer Class Review	4	4	\$1,620		\$1,620
2.2.2. Data Request and Compilation of Data	12	32	\$8,560		\$8,560
2.2.3. Update Cost of Service Analysis	40	88	\$25,080		\$25,080
2.2.4. Prepare Cost of Service Analysis Report	16	40	\$10,920		\$10,920
2.3. Rate Design Alternatives					
2.3.1. Clarify Rate Design Parameters and Alternatives	12	4	\$3,380		\$3,380
2.3.2. Data Request and Compilation of Data	8	24	\$6,200		\$6,200
2.3.3. Develop Rate Design Alternatives	64	80	\$28,880		\$28,880
2.3.4. Identify Low-Income Affordability Rate Structure Alternatives	12	40	\$10,040		\$10,040
2.3.5. Monthly Bill Comparisons	10	40	\$9,600		\$9,600
2.3.6. Comparison with Analogous Utilities	4	16	\$3,840		\$3,840
2.3.7. Prepare Rate Design Analysis Report	16	40	\$10,920		\$10,920
Task 3. Meetings and Presentations					
Task 3.1. CCU Meeting (Trip No. 1)					
Develop Presentation	12	18	\$5,970		\$5,970
On-Island: Attend and Present at Meeting	56	56	\$22,680	\$9,350	\$32,030
Follow-up Activities	8	8	\$3,240		\$3,240
Task 3.2. PUC Meeting (Trip No. 2)					
Develop Presentation	8	8	\$3,240		\$3,240
On-Island: Attend and Present at Meeting	56	56	\$22,680	\$9,350	\$32,030
Task 4: Post-Workshop Revisions (Not Included in This Fee Estimate)			\$0		\$0
<b>Total Tasks 1 - 4</b>	<b>362</b>	<b>630</b>	<b>\$196,190</b>	<b>\$18,700</b>	<b>\$214,890</b>

Note 1: Hourly Rates, Calendar Year 2020

Art Griffith, Principal and Project Manager	\$220
Debi Fortin, Principal and Senior Consultant	\$185

Hourly rates are applicable for calendar year 2020. FG Solutions adjusts its hourly rates and expenses on January 1 of each year by an inflationary amount of 3% per year.

Note 2: Labor estimates per trip include 8 hours travel time per person per trip, plus four 10-hour work days on island per person per trip.

Note 3: Expenses, Per Trip

Air Travel: Debi Fortin and Art Griffith	\$6,000	\$3,000 per person
Transportation to/from Airport	\$225	
Per Diem	\$2,500	\$250/day for five days for two people
Rental Car and Gas	\$625	
<b>Total</b>	<b>\$9,350</b>	