



**GWA RESOLUTION NO. 28-FY2024**

**RELATIVE TO REQUEST FOR APPROVAL TO PROCURE THE DESIGN-BUILD OF  
GUAM WATERWORKS AUTHORITY SCADA SYSTEM**

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

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

**WHEREAS**, a SCADA System is a combination of hardware and software that enables real-time monitoring and control of industrial processes, such as those used in water production and distribution, wastewater collection and treatment. SCADA systems gather data from sensors and instruments located at remote sites, process this data, and provide operators with the ability to monitor and control equipment from a central location; and

**WHEREAS**, the GWA recognizes the numerous benefits that a SCADA system can provide for the operation of the water and wastewater systems including improvement to:

- 1) Operational efficiency and cost savings by providing automated real-time data collection enabling operators to make better informed decisions,
- 2) Reliability and resilience by providing continuous monitoring enabling operators to detect system anomalies before they escalate into major problems,
- 3) Regulatory compliance by provided timely data for reporting purposes as well as continuous monitoring and recording ensuring adherence to health and safety standards and environmental standards; and

**WHEREAS**, currently GWA operates a diverse array of SCADA hardware and software solutions that are localized in the site level at some facilities, while majority of the remote sites

1 do not have SCADA equipment at all; and GWA currently does not a central station that  
2 connects to all of the remote sites for centralized data gathering, historian, and analysis; and  
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4 **WHEREAS**, managing these disparate systems with five (5) different brands of SCADA  
5 systems across multiple facilities has become increasingly unsustainable in terms of  
6 maintenance, training, and spare parts management; and  
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8 **WHEREAS**, the impact of Typhoon Mawar in May 2023 further highlighted GWA's  
9 need for continued investment in implementing a reliable island-wide SCADA System to better  
10 manage and monitor the response and recovery of emergency events; and  
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12 **WHEREAS**, in the aftermath of Typhoon Mawar, SCADA expert consultants appointed  
13 by FEMA, recommended for GWA to standardize its SCADA system hardware and software to  
14 better manage the cost and efficiency in maintenance and operation; by standardizing across  
15 GWA facilities, GWA can:

- 16 1) Optimize training and enhance staff expertise by having more focused and deeper  
17 knowledge,
- 18 2) Simplify software licensing and reducing cost on development environment,
- 19 3) Ensure synergistic features in an equipment product family are fully leveraged,
- 20 4) Mitigate cybersecurity threats by reducing threat vectors; and  
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22 **WHEREAS**, the GWA has identified a total of roughly 420 remote locations consisting  
23 of water wells, springs, reservoirs, water booster pump stations, pressure regulating valves,  
24 master meters, surface water treatment plants, sewage pump stations and wastewater treatment  
25 plants, where the exact quantity will continue to change slightly as GWA continues to execute  
26 capital improvement projects to improve and expand water and wastewater services; and  
27

28 **WHEREAS**, GWA management plans to implement a system wide SCADA system in 4  
29 nonsequential phases, where

- 30 • Phase 1 involves the construction of the SCADA Control Center including all  
31 necessary appurtenances,

- Phase 2 involves the integration of locations with existing site level local SCADA systems to the SCADA Control Center which may include major upgrades for systems that has reached end of service life,
- Phase 3 involves the assessment, design, and construction at potable water facilities to install SCADA equipment and integrate each facility to the SCADA Control Center,
- Phase 4 involves the assessment, design, and construction at wastewater facilities to install SCADA equipment and integrate each facility to the SCADA Control Center; and

**WHEREAS**, GWA management seeks to solicit bid proposals for the Design Build of GWA SCADA System Phases 1 and 2 as funding becomes available, GWA management will return to the CCU for approval of additional scope and Phases 3 and 4; and

**WHEREAS**, the recommended Scope of Work includes remodeling of the GWA System Control Center to include a secured SCADA Control Center, a central SCADA master server, assessment and integration of remote sites that have site level local SCADA systems and provide all remedy necessary for successful integration including complete replacement of aged systems beyond their useful life, and service contract for maintenance, training and development for 3 years with two 1-year optional renewals; and

**WHEREAS**, GWA management is actively exploring additional funding options, such as grants, with intent to expand the scope of this project to include all facilities and complete the SCADA system implementation, and will seek additional CCU approval when necessary, should additional funding become available; and

**WHEREAS**, GWA management seeks CCU approval to issue a competitive procurement to solicit design-build bids from experienced and qualified companies; and

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1           **WHEREAS**, GWA management seeks CCU approval to fund this project in the amount  
2 of Four Million Eight Hundred Fifty-Three Thousand Eight Hundred Fifty-Five Dollars  
3 (\$4,853,855.00) from GWA Bond funds and USEPA Grants; and  
4

5           **WHEREAS**, the Public Utilities Commission (PUC) contract protocol requires GWA to  
6 obtain approval prior to advertising procurement for projects with an anticipated value of One  
7 Million Dollars (\$1,000,000.00) or greater; and  
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9           **WHEREAS**, the CCU must approve all petitions that will be submitted to the PUC and  
10 GWA management further seeks CCU approval to submit a petition to the PUC for approval;  
11 and  
12

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

- 15           1. The recitals set forth above hereby constitute the findings of the CCU.
- 16           2. The CCU finds that solicitation of bids for Design Build of GWA SCADA  
17           System Phases 1 and 2 is necessary to improve operations and customer  
18           service.
- 19           3. The CCU hereby authorizes the amount of Four Million Eight Hundred Fifty-  
20           Three Thousand Eight Hundred Fifty-Five Dollars (\$4,853,855.00) from  
21           GWA Bond funds and USEPA Grants for the Design Build of GWA SCADA  
22           System Phases 1 and 2.
- 23           4. The CCU hereby further authorizes the management of GWA to fund Design  
24           Build of GWA SCADA System Phases 1 and 2 project with GWA funds  
25           applicable to the project and other funding sources such as federal and local  
26           grants.
- 27           5. The CCU hereby further authorizes GWA management to submit a petition to  
28           the PUC for the procurement of Design Build of GWA SCADA System  
29           Phases 1 and 2.  
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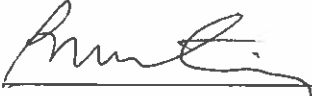
1           **RESOLVED**, that the Chairman certified, and the Board Secretary attests to the adoption  
2 of this Resolution.

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4           **DULY AND REGULARLY ADOPTED**, this 23<sup>rd</sup> day of July 2024.

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6           Certified by:

Attested by:

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8           



9           **JOSEPH T. DUENAS**

**PEDRO ROY MARTINEZ**

10          Chairperson

Secretary

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12  
13                           **SECRETARY'S CERTIFICATE**

14           I, Pedro Roy Martinez, Board Secretary of the Consolidated Commission on  
15 Utilities as evidenced by my signature above do hereby certify as follows:

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

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21           AYES:

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22           NAYS:

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23           ABSENT:

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24           ABSTAIN:

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