

**BEFORE THE GUAM PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF: ) GPA Docket 17-01  
 ) GWA Docket 17-01  
The Application of the Guam Power Authority )  
to Approve the SCADA System ) **PUC COUNSEL REPORT**  
Contract with Benson Guam Enterprises, )  
Inc. (Benson) )  
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**INTRODUCTION**

1. This matter comes before the Guam Public Utilities Commission [“PUC”] upon the Petition of Guam Power Authority [“GPA”] for Approval of the Supervisory Control and Data Acquisition System [“SCADA”] Contract with Benson Guam Enterprises, Inc. [“Benson”].<sup>1</sup>
2. Both GPA and GWA are requesting approval of the contract for their SCADA systems.

**BACKGROUND**

3. On April 28, 2015, GPA issued Multi-Step Bid Invitation No. GPA-066-16 for a Supervisory Control and Data Acquisition [“SCADA”] system.<sup>2</sup> The IFB invited qualified firms to participate in a Multi-Step Bid for a SCADA system for both the Guam Power Authority and the Guam Waterworks Authority.<sup>3</sup>
4. The bid sought a SCADA system that would run both Power SCADA and Water and Wastewater SCADA on a common platform.<sup>4</sup>
5. For GPA, the purpose of the project is to replace GPA’s existing Siemens Power TG EMSYS Energy Management (SCADA) System, which has been in operation since 2006.<sup>5</sup>

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<sup>1</sup> GPA Petition to Approve the SCADA System Contract with Benson Guam Enterprises, Inc., GPA Docket 17-01 and GWA Docket 17-01, filed October 10, 2016.

<sup>2</sup> GPA Invitation for Multi-Step Bid (IFB) No. GPA-066-16, filed by GPA herein on October 12, 2016.

<sup>3</sup> Id. at p. 11.

<sup>4</sup> GPA Petition to Approve the SCADA System Contract with Benson Guam Enterprises, Inc., GPA Docket 17-01 and GWA Docket 17-01, filed October 10, 2016, at p. 1.

<sup>5</sup> Issues for Decision, GPA Resolution No. 2016-48 and GWA Resolution No. 60-FY2016 (SCADA), provided to the CCU in the Board Packet for the September 27, 2016 Regular Meeting.

6. For GWA, the project objective is to provide GWA with a water and wastewater SCADA system to manage its water and wastewater operations in a safe, reliable, responsible and cost effective manner. GWA anticipates that it will integrate approximately sixty (60) SCADA-ready water and wastewater facilities by 2018 with remaining facilities planned and added as funding becomes available.<sup>6</sup>
7. The new SCADA master station equipment will be installed primarily on second and third floors of the Gloria B. Nelson Public Service Administration Building.
8. SCADA is a complex system of equipment, associated software, and other deliverables. A technical description of the SCADA system is provided in the IFB, Vol. II, Technical Qualification Requirements.<sup>7</sup>
9. In general terms, a SCADA system provides remote telemetry and control to the substations and GPA plants. GWA does not presently have a SCADA system; the system will provide similar telemetry and control functions to 14 GWA facilities.<sup>8</sup> The subsequent phases of SCADA implementation will upgrade additional GWA facilities.<sup>9</sup>
10. The SCADA system provides supervisory control to and data acquisition from the GPA and GWA facilities that are connected to the system. It can be used for monitoring and plant management, event management, real-time and historical trending, record and data keeping, historical information system, and other functions.<sup>10</sup>
11. Other advanced applications for GPA include Automatic Generation Control (AGC), Dispatcher Power Flow (DPF), Switch Order Management (SWOM), and Load Shedding and Restoration (LSR).<sup>11</sup>
12. For GWA, advanced applications include Leak Detection Management, Pump Condition Monitoring, and Sequential Control Capability.<sup>12</sup>

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<sup>6</sup> Id.

<sup>7</sup> GPA Invitation for Multi-Step Bid (IFB) No. GPA-066-16, filed by GPA herein on October 12, 2016, at p. 68.

<sup>8</sup> Id. at p. 74.

<sup>9</sup> Id. at p. 75.

<sup>10</sup> Id. at pgs. 108-109.

<sup>11</sup> Id. at p. 109.

<sup>12</sup> Id.

13. The new system will process and utilize real-time data acquired from remote terminal units (RTU's).<sup>13</sup> The system provides numerous data processing and storage functions.<sup>14</sup> The system provides the capability to display to the System Dispatcher any data value in the system database.<sup>15</sup>
14. The system also provides a Data Trending function that allows any data value to be captured, saved, and viewed on a dispatcher display.<sup>16</sup> The supervisory control capabilities allow for the performance of supervisory control operations at any of the remote terminal units or programmable logic controllers.<sup>17</sup>
15. The description herein is in no manner comprehensive or complete; however, the system appears to be a necessary and desirable aid in the provision of efficient power and water services.
16. There were only two bidders in response to the IFB.<sup>18</sup> The GPWA Bid Committee, upon the evaluations of technical and price bid proposals accepted under Step One and Step Two of the multi-step bid process, determined that Benson Guam Enterprises, Inc. was the lowest responsive and responsible bidder that met all of the requirements set forth in the Multi-Step Bid GPA-066-16.<sup>19</sup>
17. The total cost of the SCADA System Contract with Benson Guam Enterprises, Inc. is the amount of \$1,951,474; GPA's share is \$1,518,769 and GWA's share is \$432,705.<sup>20</sup>
18. GPA's share of the cost will be paid from the 2014 Bond Proceeds<sup>21</sup>; the PUC Order in GPA Docket 14-09, dated December 1, 2014, approved GPA's request to expend \$1,800,000 for the Fadian SCADA system.<sup>22</sup>

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<sup>13</sup> Id. at p. 111.

<sup>14</sup> Id. at pgs. 113-114

<sup>15</sup> Id. at p. 115.

<sup>16</sup> Id. at p. 116.

<sup>17</sup> Id at p. 117.

<sup>18</sup> GPA Petition to Approve the SCADA System Contract with Benson Guam Enterprises, Inc., GPA Docket 17-01 and GWA Docket 17-01, filed October 10, 2016, at p. 1.

<sup>19</sup> Guam Consolidated Commission on Utilities GPA Resolution No. 2016-48 and GWA Resolution No. 60-FY2016 (SCADA), Authorizing Management of Guam Power Authority (GPA) and Management of Guam Waterworks Authority (GWA) to Enter into a Contract with Benson Guam Enterprises, Inc. for the Design and Installation of the Supervisory Control and Data Acquisition (SCADA) System, adopted September 27, 2016, at p. 2; see also Exhibit A thereto.

<sup>20</sup> Id at p. 2.

<sup>21</sup> Id.

<sup>22</sup> PUC Order, GPA Docket 14-09, dated December 1, 2014, at p. 3.

19. GWA's share of the total will be paid from GWA's 2016 Bond under CIP Line Item EE 09-08 SCADA Improvements-Phase 3.<sup>23</sup>
20. On September 27, 2016, the CCU approved the request of GPA and GWA to enter into a contract with Benson Guam Enterprises, Inc. for the total amount of \$1,951,477.00 for the design and installation of a SCADA System.<sup>24</sup>

### ANALYSIS

21. With the IFB, GPA has provided a standard form contract in accordance with which Benson will design and implement the SCADA System. The contract includes the detailed specifications and should be adequate to protect the interests of GPA, GWA, and their ratepayers. The contract contains indemnification, insurance, and warranty provisions.
22. GPA's present SCADA System is over 10 years old; the new system should be more compatible with GPA's updated communications and smart grid systems.
23. GWA previously prepared its Master Plan for the implementation of a SCADA System. Since GWA does not have such a system at present, the implementation of a SCADA system should assist the upgrading and increased efficiency of its operations.
24. The system should be completed by the end of 365 days from Benson Guam Enterprises, Inc.'s receipt date of GPWA's Notice to proceed, as stipulated in the bid documents.<sup>25</sup>
25. The SCADA system will improve the ability of both GPA and GWA to monitor and control the electric power grid and the water and wastewater utility system.
26. GPA anticipates that it will place 10 or more additional new renewable energy

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<sup>23</sup> <sup>23</sup> Guam Consolidated Commission on Utilities GPA Resolution No. 2016-48 and GWA Resolution No. 60-FY2016 (SCADA), Authorizing Management of Guam Power Authority (GPA) and Management of Guam Waterworks Authority (GWA) to Enter into a Contract with Benson Guam Enterprises, Inc. for the Design and Installation of the Supervisory Control and Data Acquisition (SCADA) System, adopted September 27, 2016, at p. 2; see also Exhibit A thereto, at p. 2.

<sup>24</sup> Id at p. 3.

<sup>25</sup> Guam Consolidated Commission on Utilities GPA Resolution No. 2016-48 and GWA Resolution No. 60-FY2016 (SCADA), Authorizing Management of Guam Power Authority (GPA) and Management of Guam Waterworks Authority (GWA) to Enter into a Contract with Benson Guam Enterprises, Inc. for the Design and Installation of the Supervisory Control and Data Acquisition (SCADA) System, adopted September 27, 2016, at p. 2; see also Exhibit A thereto, at p. 2.

facilities and a 40MW Energy Storage System at the Agana Substation on SCADA.<sup>26</sup> The SCADA system will also assist both GPA and GWA in implementing their Cyber Security Plan and Policies.<sup>27</sup>

27. For the foregoing reasons, GPA and GWA have demonstrated that the implementation of the SCADA System and the contract with Benson Guam Enterprises, Inc. are reasonable, prudent and necessary.

### RECOMMENDATION

28. Counsel recommends that the Commission authorize GPA and GWA to enter into the SCADA System Contract with Benson Guam Enterprises, Inc.

29. The total amount of \$1,951,474 should be authorized for such contract, with the GPA share at \$1,518,769 and the GWA share at \$432,705.

30. The source of the GPA and GWA funds for the contract are bond funds, as set forth in the ANALYSIS section above.

23. A Proposed Order is submitted herewith for the consideration of the Commissioners.

Dated this 24th day of October, 2016.

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PUC Legal Counsel

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<sup>26</sup> GPA Invitation for Multi-Step Bid (IFB) No. GPA-066-16, filed by GPA herein on October 12, 2016, volume II, at p. 71.

<sup>27</sup> Id. at p. 72.