REQUEST FOR INFORMATION

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM SOLUTION

Section 1 - Background

I. Introduction

The Fayetteville Public Works Commission (hereafter referred to as PWC) is in the process of researching opportunities to create one company-wide Supervisory Control and Data Acquisition (SCADA) solution that will meet the requirements for our Water, Wastewater, and Electric operations as a centralized system.

II. Background Information

PWC was created on March 4, 1905, through an act of the state legislature to manage, operate, and supervise the three utilities – electric, water, and sanitary sewer services. The PWC operates as a public authority owned by the City of Fayetteville, and is governed by four Commissioners appointed by the Fayetteville City Council. The PWC serves more than 113,000 customers daily and is committed to implementing sustainability efforts that benefit the community at-large. Listed below are a few key facts about our utility:

- Total Electric Customers: 82,398
- Total Water Customers: 95,632
- Points of Delivery: 3
- Electric System Transmission/Distribution Lines: 1,500+ miles
- # Substations: 35
- Water and sewer infrastructure: 2,700 miles
- # Lift Stations/Collection Sites: 90
- Water treatment facilities: 2
- Water reclamation facilities: 2
- Water distribution sites (Elevated Storage Tanks and Booster Pump Stations): 12

PWC currently utilizes a decentralized SCADA system for the Water system and centralized for the Electric system. The electric and water divisions own and operate the systems and equipment as operational technologies. The IS division provides support with networking, storage, and other issues as needed. The current SCADA application used for the Electric Division is Precision Real-Time Information System Manager (PRISM) by ACS. The Water Division uses iFIX from GE Digital and VTScada by Trihedral.

Section 2 - Response Procedure

I. RFI Inquiries

Clarification questions will be accepted until July 12, 2019, 5:00 p.m. EST. All questions should be submitted electronically to mark.cannady@faypwc.com. An addendum to this RFI containing any

general clarification questions and their answers will be issued. PWC may request on site interviews with potential vendors for discussion during our evaluations.

II. Submission of Responses - Due Date

PWC must receive the entire response no later than July 30, 2019, 5:00 p.m. EST at the address below. The response will be incomplete if either the electronic or hard copy response documents are not received by the submission deadline above.

Respondents will provide their written response to this RFI as follows:

1. Response in electronic format. Respondent will supply one (1) USB Drive with their response materials in PDF format.

2. Response in hard copy. Respondents will supply ten (10) copies of their response materials.

3. Please submit USB drive and hard copy responses:

By mail or express mail to the following address:

Fayetteville Public Works Commission

Attn: Mark Cannady – Procurement Supervisor

955 Old Wilmington Rd

Fayetteville, NC 28301

4. Clearly identify your sealed envelope or package with your name, Company, and RFI title. A telephonic, telegraphic or facsimile transmission of Respondent's entry is NOT acceptable and will not be considered responsive.

5. Submittals should be limited to 35 pages.

III. Cost to Prepare Response

PWC Recognizes that considerable effort will be required in preparing a response to this RFI. **Please note this is a request for information only, and __not__ a request for services.** All costs associated with Respondent's work in the preparation of its response are the responsibility of Respondent. PWC will not reimburse Respondent for response preparation and associated costs incurred by the Respondent as a result of this RFI.

Section 3 - Response Format

PWC expects concise, detailed, point-by-point responses to each of the items identified within the sections below.. Responses should clearly define how the vendor's proposed solution(s) would meet PWC business requirements.

Any concerns with PWC's requirements should be identified and explained. The response should define all services that would be required by the proposed solution to include equipment, software, and incidentals. The response should show the vendor's understanding of the project and services by specifically addressing PWC's requirements. The response should also show a total cost of ownership for the solution

including compliance with industry standards. Additionally, the proposed solution's ability to expand and evolve to serve other areas of growth within PWC's service area should be explained.

I. Coversheet

List RFI title; the name of your firm; and the name, address, e-mail, fax, and telephone number of a contact person for questions concerning this response.

II. Executive Summary

Respondent must limit this section to three (3) pages or less.

III. Description of Solution

Submittals should include responses to the items as outlined below.

i) SCADA System Overview

- Respondent should provide an overview of the proposed system(s) with the following:
    a. Ability to create one company-wide SCADA solution that will meet the requirements for our Water, Wastewater, and Electric operations
    b. Overview of system functionality
    c. High-level system architecture diagram
    d. Description of additional SCADA components and technologies that are enabled by the solution
    e. A description of key data flows in the system
    f. Hardware requirements and preferred vendor
    g. Operating System used to run hardware
    h. How system utilizes an API to the real-time database to facilitate third-party application development

ii) System Management and Reporting

- Provide a brief description of system management and reporting, to include:
    a. Administrative roles/functions
    b. Reporting system access/functions and audit trail for monitoring
    c. Alarm notifications (what is available, how are they shared)
    d. Access to and management of historical and real-time data

iii) Technology and Security

- Provide a brief description technology and security functions, to include:
    a. Communication protocols

b. Programmable logic controls (We use ACS Remote Terminal Units and SEL Real Time Automation Controller (RTAC's) for our electric systems, and Allen Bradley, Wago and Modicon for our water systems.)

c. User management protocols

d. Types of connections/access points to the SCADA system How features/functions of the system will be utilized to ensure security of the SCADA system, to include logging and monitoring of data

e. Adherence to NERC-CIP and other industry standard security requirements (electric only at this time)

f. Provide a sample network diagram and description of architecture and systems

g. Backup and disaster recovery plan for system

h. Ability to operate in a centralized environment (Hardware)

i. Ability to transport data via voice response, Multispeak 4.0 or higher, or ICCP

j. Ability to integrate with third-party solutions, applications and equipment

k. Ability to provide remote web viewers and mobile applications

l. Mobile application functions/capabilities

iv) Implementation and Support

- Provide responses to the following questions related to implementation and support, to include:

  a. Describe a typical implementation of this system. What is the average timeline? What is the average cost?

  b. Describe procedures to upgrade software. Are these provided as part of an annual maintenance agreement?

  c. Describe procedures required to install updates to supporting software applications (Windows, Servers, etc.).

  d. Describe the deployment support your organization provides, to include pricing structure.

  e. Outside of support and upgrades, what other operational costs are required to support the system?

  f. Lay out timelines for ordering products and what would be a standard time for product delivery once a purchase ordered is released.

  g. Provide a template or a copy of a detailed implementation plan that was used for the implementation of your solution.

h.   Describe specific procedures for problem isolation and resolution. Detail specific escalation procedures to higher level support groups.

i.   Describe in detail the training offered customers to operate and maintain the system. Describe training courses and the information provided. Please include information such as class size, duration, appropriate attendees, and whether training is provided on-site or at vendor's premises.

j.   What components of the system are at risk of obsolescence over a fifteen (15) year period and what are the capabilities for update or upgrade?

k.   Include a roadmap of planned enhancements/upgrades within the next five (5) years.

l.   Describe the virtualized system and virtual software used.

IV.   *Company Background and Experience*

Respondent should provide details about the company and its experience delivering SCADA products and systems. This should include a description of manufacturing capabilities and the ability to meet the installation goals of the SCADA project.

i) SCADA Qualifications

Respondents should provide a discussion of their qualifications to provide SCADA products and systems including number of years in business and years providing SCADA systems. Respondents should describe the quantity of SCADA systems that have been delivered to and are in use by clients.

ii) Experience with Prior Projects

Respondents should provide details about any applicable deployments of their products and services. Respondents are strongly encouraged to provide performance metrics on the installation and operation of their products as well as any failure rates and corrective actions taken. Provide details on any previous projects implemented within the past five (5) years that are similar in size and scope to PWC.

V.   *Appendices*

Respondent should include product brochures, configuration manuals, installation manuals and any other relevant materials in appendices.