

**REQUEST FOR QUALIFICATIONS
FOR DESIGN AND INSTALLATION OF SCADA SYSTEM
CITY OF LANDER
SEPTEMBER 2018**

Invitation

The City of Lander, also known as the City, is soliciting proposals for the design, supply, installation, commissioning, and maintenance of a SCADA system for the entire City. Qualified organizations should have ample experience and expertise with all aspects SCADA systems and be capable of providing successful turnkey projects for the City of Lander.

City of Lander

Lander is a community of approximately 7,500 people located Lander, Wyoming. The main components of the system include:

1. Water Treatment Plant
 - a. 4 Filters
 - b. 2 Blowers
 - c. Aluminum Sulfate
 - d. Polymer Room
 - e. Chlorine Room
 - f. Caustic Soda Room
 - g. UV Building
 - h. Pumps
 - i. Valves
 - j. Meters
2. Storage Tanks – Four
 - a. 4 Million
 - b. 2 Million
 - c. 0.5 Million
 - d. 0.5 Million
3. Booster Station – One
 - a. Golf Course
4. PRV Vaults – Four
 - a. Golf Course
 - b. Street Shop
 - c. Public Works
 - d. Hospital
5. Sewer Lagoons
 - a. Blower Building
 - b. Meter Building
 - c. Headworks
6. Lift Stations - Two
 - a. Industrial Park
 - b. WLRC

The City desires to improve the operation and control of these Systems through the addition of the proposed SCADA system.

Award of Contract

A contract, if awarded, will be executed with the respondent who proposes the most favorable solution, as determined by the selection committee, following the guidelines set forth in the RFQ. If a respondent is selected, they will be notified within 30 days of the proposal due date. The selected respondent will be required to enter into an agreement with the City of Lander prior to issuance of Notice to Proceed.

The City expects to work with the selected respondent in phases. The pricing for the RFQ is only for the design services.

When the project is designed and the City approves the design. The SCADA provider will provide budget estimates to the City for the design. The budgets will determine the ultimate configuration and timeline for the implementation of the SCADA system. The City plans to negotiate a contract for the Implementation based on available funds.

Schedule

The following tentative schedule has been established for the selection and contracting process. It is subject to change by the City.

Event	Date
Release of Request for Proposals	October, 2018
Pre-Proposal Meeting / Site Visit (Optional)	October 24th, 2018 @ 9:00, meeting at Water Treatment Plant
Deadline for Questions	November 2 nd , 2018
Proposal Due Date	November 9 th , 2018

Obtaining the RFQ

The RFQ may be obtained on the City's website at <http://landerwyoming.org/>

Rights Reserved

The City reserves the right to reject any or all proposals, to waive technical deficiencies and to accept any proposal that it might deem to be in the best interest of the City.

Publish October 07, 2018; October 14, 2018

REQUEST FOR PROPOSALS

1.0 Introduction

The City is soliciting written proposals from qualified organizations ('Vendors') for the design, furnishing, installation, programming, commissioning, training and support for, Supervisory Control and Data Acquisition (SCADA) systems for the City. All components and services of the proposed systems must be provided by a single Vendor to ensure a single source of responsibility and support.

2.0 Scope of Work

The purpose of this SCADA RFQ is to select a SCADA provider to design and implement a central infrastructure for data communications, system monitoring and control, disturbance reporting and alarming, historic data recording, analysis and reporting for the City. The infrastructure will be capable of handling the SCADA requirements of the existing systems and will have sufficient capacity or be expandable to accommodate future requirements.

The following is a summary description of the anticipated scope of services. This information is provided as a framework for Vendor responses and cost analyses. Vendors are free to make any additions that they believe will provide value or benefit to the project.

2.1 Overall Control System Description

Features/Function:

- A Central Control Workstation (CCW) will be located at the Water Treatment Plant multiple remote sites that are queried and controlled via the server and/or CCW. The main workstation will consist of a desktop computer, terminal and typical peripheral devices: keyboard, mouse, etc. A UPS will also be provided to fully support the CCW. The Vendor will provide all components required for the CCW.
- System must have a secure remote connection via VPN.
- Software must support multiple protocols as needed including Modbus RTU, BACnet MS/TP & TCP/IP.
- Web access to SCADA via encrypted internet connection.

Server/Data Back-up:

- The server must retain a complete copy of all controller configuration data and operational parameters such that an automatic re-configuration of all controllers is possible at any time, as initiated by the operator.
- The system must provide fully automated regular backup of all data, settings, logs and configuration information for controllers, graphical user interface and servers. These backups must operate without user input or initiation and provide sufficient data to completely restore the system after a catastrophic failure of any or all components.
- The system must provide a reliable and user-friendly mechanism to create a hard copy of all the above information for offsite storage (network location, flash/hard drives, and a cloud location).
- Note any additional back up procedures or offerings available to ensure the SCADA data is backed up and protected.

HMI/GUI (Human Machine Interface/Graphical User Interface):

- No partial license or trial version will be accepted.
- RFQ shall include example screens of applications similar to those for this project.
- The system will automatically log all alarm and events.
- Alarms must be capable of customizable delay times.
- The software must be able to provide notifications to operators via standard internet connection, voice calls, text messaging, and emails. These alerts must be capable of being sent to multiple devices and repeat as necessary.
- Data reports and history logs shall allow long term monitoring sample rates from 1 second to 24 hours.
- Ability to provide historical data and accessible from the HMI/GUI. Minimum of 10 years required.
- The software must be able to have tiered security access for different entities within the organization.
 - Each user must have an account that is restricted to their appropriate areas of the system.
- The system will automatically log all user activities.
- System communication failure monitoring and notification.
- Software will monitor and report data in real-time.

SCADA Controllers, Hardware and Communications:

- All control panels will be sized and constructed to house all the points on the input output summary including spare capacity for future I/O expansion. Spare I/O hardware will not be required; however, the space for future I/O expansion is required within the control panel.
- All controllers must be expandable with easily replaced fuses.
- All controllers must have their associated software stored in-device on non-volatile memory.
- Controllers must be programmable from the server.
- Controllers need to be self-initializing and not require operator intervention after power interruptions or logic component changes.
- The controller must receive set points or modified I/O points from the server without disruption of other processes.
- Controllers must be able to communicate Peer to Peer. In the event of server or communications failure, controls must operate standalone from the server.
- Controllers to receive new or modified programs from the server without an onsite technician or laptop.
- Provide loss-of-power alarm and UPS back up for each location.
- If a controller is replaced and addressed on the communications network, the server will automatically download, to the newly installed controller, all I/O database parameters and all control applications programming and set points without operator intervention.
- All hardware including appurtenances must have a 24 month warranty.
- Broadband Radio network

Integration and Commissioning – Vendor vs <Replace with entity name> responsibilities

Owner Training:

- The vendor must provide the services of a qualified technician to offer hands-on training of the system immediately following project completion. Plan on a minimum of two full days on-site.
- The contractor must include cost to provide follow-up training 3 and 6 months after project completion, each one day in duration.

Ongoing Support Services

- The vendor shall provide 24/7 access and on-call services, technical support, and software updates.

2.2 Deliverables

For the proposed SCADA systems, the selected Vendor will be expected to deliver the following:

1. SCADA System Design Submittals

Vendors shall provide submittals for the proposed SCADA systems that document the proposed configuration of the CCW, RTU's, I/O panels, HMI's and any ancillary systems. Complete design submittals shall be provided to the City for approval prior to system fabrication. Submittals will include but are not limited to:

- Product data sheets for each instrument and component to be supplied in the system
- Panel Layout Drawings
- Installation Drawings
- GUI Displays, Screens, Menus and Output drawings
- Software
- Hardware and Ancillary Equipment

SCADA Panel Fabrication

The selected contractor will fabricate SCADA panels containing the controller, communications equipment, and all other required components in accordance with the approved design. SCADA panels shall be manufactured and assembled according to UL requirements.

3. Installation and Integration

Vendor will perform installation of its systems at the Owner's facilities in accordance with the approved design submittals. Vendor will be responsible for integration of the SCADA system with the specified equipment and instrumentation.

4. System Start-Up and Acceptance Testing

Vendor will provide start-up services to prepare the SCADA systems for commissioning. Acceptance testing of the system, in the presence of the owner, will also be performed by the Vendor.

5. Training and Documentation

Training for the owner's personnel in the operation and maintenance of the SCADA systems will be performed by the Vendor. In conjunction with this effort, Operation and Maintenance manuals and documentation that describe the system architecture, control logic and operating requirements in sufficient detail to allow the owner's personnel to understand and troubleshoot the system shall be provided. Two (2) bound hardcopies along with an electronic PDF copy of the O&M manual and system documentation shall be provided to the owner.

6. Maintenance and Support

Proposals should include maintenance and support services for all components of the SCADA system including hardware, software and communications for a period of one year following owner's acceptance. Proposals shall also include information regarding long term support options and opportunities.

3.0 Proposal Content and Evaluation

3.1 Format

Proposals shall be printed on standard 8-1/2" x 11" paper, single sided printing.

The proposal shall be separated into five individual sections as follows:

- Section 1 – Introductory Letter
- Section 2 – Project Approach and Team
- Section 3 – Related Experience and References
- Section 4 – Cost Analyses
- Section 5 – Support: Proximity/Availability to the City

The total number of pages for sections 1 through 5 is limited to 20 pages.

3.2 Content

SECTION 1 - Introductory Letter

An introductory letter shall be prepared by each Vendor and included as the first page of the proposal. The introductory letter is limited to one page in length. The letter shall clearly identify the Vendor including their mailing address, e-mail address, telephone and cell phone numbers and the primary contact person. The letter should express the Vendor's interest in the Project and summarize any key qualifications, the project approach, or other relevant information. The letter must also acknowledge the receipt of any addenda to the RFQ.

SECTION 2 - Project Approach

This section will describe the overall project approach for the proposed SCADA systems. Information concerning the design and configuration of the SCADA system(s) should be provided and convey a clear understanding of the controlled systems and Owner requirements.

Multiple aspects of the project approach should be addressed including but not limited to; design/hardware, software/platform, installation, maintenance, training, future upgrades/expandability. Proposers should clearly illustrate how they intend to execute each of these elements for this project.

SECTION 3 - Experience and References

The proposer must have a minimum 5 years, experience designing and implementing SCADA systems. Provide a list of systems where the SCADA provider participated in the design build or planed spec design.

Proposer shall provide a list of at least five (5) similar projects performed within the last five (5) years.

SECTION 4 - Cost Analysis

Vendors shall submit a cost proposal that addresses various cost elements. Results of the cost analyses will be used in scoring the proposals. Appendix A contains the information required to prepare the components list and cost analysis.

- 1) Anticipated Design Cost
- 2) Operating Costs
 - License cost per month, per year
 - License cost per seat fee

- License cost per tag block
- Controller replacement cost
- Telephone support cost
- VPN support cost
- Onsite support cost
- After hours support cost
- Training cost

SECTION 5 – Support: Proximity/Availability to the City

Proposer shall include the availability of support to the City staff throughout the design process and in the future operations of the system. Detail the proximity and quantity of personnel or offices that may be able to provide on-site service if needed.

3.3 Evaluation and Selection

Proposals will be reviewed and ranked by the selection committee according to the following system. A maximum combined score of 100 points will be possible. Scoring for each category is as follows:

1.	Introductory Letter	Included
2.	Project Approach and Team	25 points
3.	Experience and References	30 points
4.	Cost Analysis	25 points
5.	<u>Proximity and Quantity of Field Support</u>	<u>20 points</u>
Total Available Points		100 points

Each committee member will calculate a total combined score for each Vendor proposal based on the above criteria. The proposal with the highest ranked score may, at the discretion of the City, be selected as the preferred Vendor. The City may, at its discretion, use additional criteria or information to select the preferred Vendor. The City reserves the right to reject all proposals and not award the project.

The City may elect to ‘short list’ a handful of Vendors and conduct interviews in order to make a final decision. Short listed Vendors will be notified and a schedule for interviews, if necessary, will be determined at a later date. City is not required to select a short list of vendors and may award the project based on the proposals.

The City plans to negotiate final contract terms and scope of service with the selected Vendor.