



**REQUEST FOR
PROPOSALS for CONTROL SYSTEM
INTEGRATION SERVICES**
for
VFD REPLACEMENT PROJECT

May 2023

REQUEST FOR PROPOSAL

The South Valley Water Reclamation Facility (“SVWRF” or “OWNER”) is seeking written proposals from approved control system integration firms (“Integrators”) for providing control system integration services for the VFD Replacement Project. The scope of services consists of Programmable Logic Controller (PLC) programming and configuration, control panel design, control panel fabrication, and construction related services. All proposals must include a Proposed Price to provide the scope listed herein. SVWRF may choose to add additional Project phases to this scope of services at a future date.

BACKGROUND INFORMATION

SVWRF has awarded procurement of new Variable Frequency Drives (VFD) to ABB through local supplier Intermountain Fuse Supply. Delivery of the VFDs to SVWRF is anticipated to occur in July 2023. The new VFDs will be installed in a VFD Replacement construction project by a Contractor to be selected later in 2023. This RFP is seeking proposals to provide the control system integration services required for the upcoming VFD Replacement project.

Receipt of Proposal

Proposals will be received by South Valley Water Reclamation Facility at 7495 South 1300 West, West Jordan City, Utah 84084, in accordance with this Request for Proposal (“RFP”). Proposals will be received not later than 2:00 p.m. on June 13, 2023.

Proposals may be delivered by certified mail, hand delivered, or emailed to the South Valley Water Reclamation Facility located at 7495 South 1300 West, West Jordan City, Utah. Proposals should be sent to the attention of Taigon Worthen, P.E., email tworthen@svwater.com.

SVWRF reserves to itself, without condition, the right to reject any or all Proposals and to waive any informality or technicality in any Proposal deemed in the interest of the Owner.

Approved Integrators

The following firms are approved to provide proposals in response to this RFP:

SKM:

Representative: Mark Jeppsen

Automation & Controls:

Representative: Keith Christensen

APCO:

Representative: Eric Smith

Interpretations

All questions about the meaning or intent of the Proposal Documents shall be submitted to the Owner in writing at the email address noted above and in the Advertisement. Replies will be issued by Addenda posted to South Valley Water Reclamation Facility's website. Questions received on the day of closing for the advertisement will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Substitute Equipment or Services

The contract, if awarded, will be on the basis of supplying Equipment and Services described and specified herein. Equivalent products or services will be considered by the Owner with the Owner's decisions considered final. Substitutions are not allowed for equipment that is specified with only one allowable manufacturer.

Mandatory Pre-RFP Conference

A mandatory pre-RFP conference will be held at the time and location indicated in the schedule below. Attendance at this pre-RFP conference is a requirement to be qualified to submit a proposal. Proposals will not be accepted from Integrators that do not attend the conference. It is the Integrator's responsibility to sign in at the pre-RFP conference, under the name in which a proposal is to be submitted, to verify attendance.

SCHEDULE

The following schedule is tentative for the purpose of the RFP solicitation. If a change in the RFP solicitation period schedule becomes necessary, all recipients of the RFP packet will be notified by formal written Addenda.

Milestone	Date
<u>RFP Solicitation Period</u>	
Advertisement Request for RFPs	5/23/2023
Mandatory Pre-RFP Conference, 2:00 p.m.	5/31/2023
Deadline for Questions	6/7/2023
Final Questions and Responses Published	6/12/2023
RFP Submittal Due Date, 2:00 p.m.	6/13/2023
SVWRF anticipated selection date	6/21/2023
Notify Integrators of RFP Results	6/22/2023
Signed contract, NTP, Start work	7/6/2023

PROJECT SCOPE

The minimum recommended scope of work shall include the following. Integrators may, at their option, make suggestions to modify the scope of work.

1. Programming services:
 - a. Provide written control strategies for all PLC programming as defined in the technical specifications in this RFP.
 - i. Hold a minimum of two control strategy coordination workshops with the Owner to review and define all new PLC programming.
 - ii. Coordinate with the Owner and VFD Manufacturer to provide comprehensive list of ProfiNET data to be transmitted between VFDs and PLCs.
 - b. Provide all PLC programming services required for the implementation of the installation of new VFDs as shown in the technical drawings and specifications in this RFP. PLC programming will adhere to the written control strategies.
 - i. Modify existing PLC programming to change from hard-wired input/output (I/O) VFD control to ProfiNET data network control with new VFDs. At a minimum, modify PLC programs for the following.
 1. PCM-100, located in Headworks Pump Room (6 VFDs).
 2. PCM-1000, located in Solids Handling Building (2 VFDs).
 3. PCM-1400, located in RAS-1 Pump Station (9 VFDs).
 - ii. Program new PLCs:
 1. PCM-1500, located in RAS-2 Pump Station (5 VFDs).
 2. HW-P2, HW-P3, HW-P4, HW-P5, HW-P6, HW-P7 Control Sections PLCs, total of six control panels located in Headworks Pump Room. Each Control Section PLC will be dedicated to one Headworks Pump and VFD.
 - c. Programming services for the plant Human Machine Interface (HMI) system will be performed by the Owner.
2. Control panel fabrication:
 - a. Design, fabricate, and fully test the following new control panels to meet the requirements of the technical drawings and specifications in this RFP.
 - i. PCM-1500:
 1. Located in RAS-2 Pump Station.
 2. Replaces existing PLC control panel.
 3. Emerson RX3i PLC.
 4. Fiber optic patch panel.
 5. Ethernet switch.
 6. UPS.
 7. Provide all necessary PLC I/O modules for new and existing I/O points.

- ii. HW-P2, HW-P3, HW-P4, HW-P5, HW-P6, HW-P7 Control Sections:
 - 1. Total of six control panels. Each control panel is dedicated to control and monitoring of one Headworks Pump VFD.
 - 2. Located in Headworks Pump Room.
 - 3. Emerson RSTi PLC.
 - 4. Ethernet switch.
 - 5. Human Machine Interface.
- 3. Construction related services:
 - a. Modify the following existing control panels to meet the requirements of the technical drawings and specifications in this RFP:
 - i. PCM-100:
 - 1. Located in Headworks Pump Room.
 - 2. Provide upgraded PLC CPU.
 - 3. Provide new 48-port Ethernet switch.
 - 4. Provide single-mode fiber optic patch cable.
 - ii. PCM-110:
 - 1. Located in Headworks Pump Room.
 - 2. Provide new single mode fiber optic connector plates for existing fiber optic patch panel.
 - iii. PCM-1000:
 - 1. Located in Solids Handling Building.
 - 2. Provide new ProfiNET communications module and upgraded PLC CPU.
 - iv. PCM-1400:
 - 1. Located in RAS-1 Pump Station.
 - 2. Provide new ProfiNET communications module and upgraded PLC CPU.
 - 3. Provide new single mode fiber optic connector plates for existing fiber optic patch panel.
 - 4. Provide new 48-port Ethernet switch.
 - b. Provide coordination and support during construction as defined in the technical specifications in this RFP:
 - i. Installation of new PLC panels and termination of field wiring will be by Others. Provide support during control panel installation.
 - ii. Provide support during control panel commissioning and testing.
 - iii. Provide support during VFD commissioning and testing.
 - iv. Provide support and coordination with Owner's HMI programming efforts.

RFP SUBMITTAL INSTRUCTIONS

Integrators who submit Proposals must ensure that they comply with all conditions set forth herein. Failure to comply with all conditions of this request may constitute grounds for rejection of the Proposal as non-compliant.

Proposal Content

1. **Letter of Introduction.** Provide a one-page cover letter which gives the submitting Integrator's legal business name, physical address, mailing address, primary telephone number, and primary contact's name and email address. This letter must be signed in blue ink by a firm representative who is able to legally execute agreements with SVWRF.
2. **General Firm Information.** Use attached Form A to provide general firm information, including applicable licenses and certifications. Financial information shall also be provided.
3. **Similar Work Experience.** Use attached Form B to illustrate the Integrator's qualifications and experience with other projects similar in size and scope to the requested services. Similar work experience needs to show past success and expertise in similar projects. Where applicable, include projects with ProfiNET communications and programming of Emerson (GE) RX3i PLCs. Limit one page for each project, up to a maximum of five (5) projects.
4. **Project Team & Resumes of Key Personnel.** Use attached Form C to illustrate the project team, responsibilities, and subcontractors, if any, based on perceived tasks to complete the work. Key personnel identified in an RFP may not be changed without the advance written approval of SVWRF. Key personnel will include the individuals who will do the majority of the work. Use attached Form D to provide resumes for each person identified in the organizational chart. Limit one page per person.
5. **Project Approach.** Provide a separate narrative consisting of no more than five (5) pages for the Project. The intent of this section is to understand the Integrator's approach and methodologies with respect to Project. Provide a general project approach consistent with the general project scope identified above. Enhance the project scope to show the knowledge and familiarity with the elements of the project. Describe any unique tools (software, etc.) proposed for use in the project. Indicate a proposed project schedule as required for a complete project.
6. **Proposal Price.** Provide a proposed project price using the Price Schedule below. The undersigned Integrator agrees, if this Proposal is accepted, to accept a purchase order from OWNER in the form included in the Specifications for the Price shown in the Price Schedule and within the Time indicated in this RFP and in accordance with the technical specifications and drawings in this RFP.

The Integrator accepts all of the terms and conditions of the RFP. This Proposal will remain subject to acceptance for thirty days after the day of closing.

In submitting this Proposal, Integrator represents, that:

- a. Integrator has examined copies of all the technical specifications and drawings included in the RFP and any additional formally issued Addenda.

- b. Integrator has familiarized itself with the nature and extent of the Proposal Documents, services, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Equipment and Services.
- c. Integrator has given OWNER written notice of all conflicts, errors, or discrepancies that he/she has discovered in the RFP and the written resolution thereof by OWNER is acceptable to Integrator.
- d. This Proposal is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation. Integrator has not directly or indirectly induced or solicited any person, firm, or corporation to refrain from quoting; and Integrator has not sought by collusion to obtain for itself any advantage over any other Integrator or over OWNER.
- e. Integrator will furnish the Equipment and Services for the price shown on the attached Price Schedule. Other items of work defined in the specifications, but not listed in the Price Schedule, shall be considered incidental to one or more of the items listed in the Price Schedule and shall be paid for under the item listed to which it is related. Final payment will be based on actual Equipment and Services provided for the prices proposed.
- f. Price Schedule Items shall include and cover all costs taxes, licenses, fees, transportation/delivery, labor, and materials to provide, test and provide training on the equipment.

Price Schedule

ITEM	DESCRIPTION	PROPOSAL PRICE
1	Programming Services as defined in Scope of Work Provide estimated manhour estimate.	
2	Control Panel Fabrication as defined in Scope of Work Provide breakdown of line item price for PCM-1500, and control cabinets for Headworks Pump VFDs.	
3	Construction Related Services as defined in Scope of Work Provide breakdown of equipment costs and labor costs, with estimated manhour estimate.	
	<i>Price Schedule Total Price:</i>	
	<i>Price Written in Words:</i>	

EVALUATION AND SELECTION PROCESS

SVWRF intends to select an Integrator that is capable of providing services for all aspects of the Project. The SVWRF intends to award a contract to the highest ranking Integrator based on the selection process and evaluation criteria provided herein. The selection process is described as follows:

1. Proposals will be received by the SVWRF at the time and place designated above.

2. Submitted Proposals will be initially reviewed for compliance; non-compliant submitted Proposals will be rejected.
3. A selection committee established by SVWRF will review the submitted Proposals and rank the Proposals according to the evaluation criteria listed below. The committee may contact the two highest ranked firms to interview or to ask questions regarding content of the Proposals. The selection committee may then refine its scoring of the Proposals. The selection committee will then recommend a selection.
4. The SVWRF Board shall consider the recommended selection and make final approval.
5. After Board approval, the selected Integrator will be notified. SVWRF staff will then negotiate a contract with the selected Integrator, including final scope of work and fees for the Project. In the event that negotiations with the selected Integrator are not successful, SVWRF reserves the right to enter into negotiations with the second-highest ranked Integrator instead. If those negotiations are also unsuccessful, then SVWRF reserves the right to not award a contract to any Integrator which submitted a Proposal in response to this request. SVWRF also reserves the right to change the scope of the project generally described herein without repeating the formal solicitation process.

EVALUATION CRITERIA

The technical evaluation will be based upon a determination by the Evaluation Committee members as to how well each submitted proposal meets the evaluation criteria. Proposals will be evaluated on the criteria scoring combined with the corresponding weight factors listed below.

Form	Criteria	Point Scoring Range	Weighting %
A	Letter of Introduction, General Firm Information (licenses, certification, financial information)	0 - 10	5%
B	Similar Work Experience	0 - 10	30%
C	Project Team	0 - 10	10%
D	Resumes of Key Personnel	0 - 10	5%
<i>None</i>	Project Approach	0 - 10	20%
<i>None</i>	Proposed Price Schedule. The following cost formula will be used: The points assigned to each Integrator's cost proposal will be based on the lowest proposal price. The proposal with the lowest Proposed Price will receive the full weighted points for the Proposed Price points. All other proposals will receive scores inversely proportional to their Proposed Price.	0 - 10	30%

FORM A: GENERAL FIRM INFORMATION

A. Please complete the following information. Complete questions 10 thru 13 with a YES / NO.

1.	Firm's name:		
2.	Business address:		
3.	Date Firm was organized:		
4.	Current president, CEO, or Principle in charge:		
5.	Number of permanent office and support employees:		
6.	How long has Firm been doing work similar to proposed project?		
7.	Firm Utah engineering license:		
	Primary classification:		
8.	Principal Utah engineering license # and expiration date:		
9.	Errors & Omissions insurance carrier name:		
	E & O Insurance limits:		
10.	Has the Firm, or any of its parents or subsidiaries, ever had a bankruptcy petition filed in its name, voluntarily or involuntarily?		
11.	Are there any unresolved claims or disputes on any work done by the Firm during the past five years?		
12.	Has the Firm ever failed to complete any work that it was awarded?		
13.	Has the Firm ever had any professional license, credential, or registration revoked?		

B. Attach licenses, certifications, and last 3 years of financial information.

FORM B: SIMILAR WORK EXPERIENCE

A. Please complete the following information. Do not attach additional information.

1. Title of example project:	
2. Project location (city and state):	
3. Year completed (professional services):	
4. Year completed (construction, if applicable):	
5. Project Owner name:	
6. Project Owner contact name:	
7. Contact telephone number & email address:	
Brief description of project and relevance to this submittal (scope, size, cost, etc.):	
8. Subcontractors or Subcontractors involved in example project, if any:	
Firm name:	
Service provided:	
Firm name:	
Service provided:	
Firm name:	
Service provided:	

FORM C: PROJECT TEAM

A. Please identify Integrator's key project team members, their title, and primary duties:

Name	Title	Primary Duties

B. Please identify key subcontractors or service providers that will support the project team.

Firm Name & Location	Contact Person	Support Services Provided

C. Please attach an organizational chart of the project team. Include subcontractors and service providers. Additional team members not listed above may be included on the chart. Limit chart to one page.

FORM D: RESUMES OF KEY PERSONNEL

- A. The following form may be used. Substitute forms are allowed; however, each resume shall be one page in length. Additional relevant project experience may be attached to this form.

1. Name:			
2. Years of engineering experience:			
3. Years with current firm:			
4. Education (degree and specialization):			
5. Current P.E. registration (state and discipline):			
6. Other professional qualifications:			
7. Relevant project experience (Name & Location):			
Year completed (professional services):			
Year completed (construction, if applicable):			
Brief description (scope, size, cost, etc.) and specific role:			
8. Relevant project experience (Name & Location):			
Year completed (professional services):			
Year completed (construction, if applicable):			
Brief description (scope, size, cost, etc.) and specific role:			
9. Relevant project experience (Name & Location):			
Year completed (professional services):			
Year completed (construction, if applicable):			
Brief description (scope, size, cost, etc.) and specific role:			