AMENDMENT TO REQUEST FOR PROPOSAL
UAF Electrical Supervisory Control and Data Acquisition System (SCADA)

REQUEST FOR PROPOSAL NO. 12P0010RD
Procurement Officer: Rick A. Danielson
Issue Date: November 23, 2011

AMENDMENT NO. 2
Effective Date: December 7, 2011

ISSUED TO:
All Prospective Offerors

ISSUED BY:
University of Alaska Fairbanks
Procurement & Contract Services
PO Box 757940
Fairbanks AK 99775-7940

Dear Vendor:

The following clarifications, revisions, and changes have been made to Request for Proposal No. 12P0010RD for UAF Electrical Supervisory Control and Data Acquisition System (SCADA):

This amendment does not provide for a change in the solicitation closing date: Friday, December 16, 2011, 5:00PM local time.

This amendment requires acknowledgement, please see the final page

The e-mail notification sent for this amendment has attachments for word and excel of a limited number of forms applicable to this solicitation. Please note:

Offerors may request an MS Word copy of the RFP documents to include all forms that require a response and submittal. The University of Alaska Fairbanks, Procurement & Contract Services, Administrative Policy indicates the following: "This solicitation is provided as an MS Word document in order to allow offerors the ability to more easily prepare a response to the RFP. The offeror may not add, delete, or alter any language provided by the University in the solicitation. In the event that there is any difference between the language contained in the MS Word version of the solicitation and the Adobe pdf version located on the UAF Procurement website, the language on the website prevails."

Based on questions derived from the pre-proposal conference and directly submitted, the following information, modifications, and UAF's response to questions and clarifications shall be incorporated as part of the above referenced proposal and its specification.

Corrections:

Volume 2 Attachment, Division 1 & 16 Technical Specifications, section 01010 (Summary Of Work), 1.04 (page 01010-4) Milestone; is superseded by solicitation page #3 ANTICIPATED SOLICITATION SCHEDULE to include "required project completion ....... 06/30/2012"
The following section contains answers to questions either provided in writing prior to the pre-proposal conference, or during the pre-proposal conference:

**Question 1: Section 16900 Part 2.06 (page 16900-18) - What does the Requirements for the Configuration cover? Does this cover RTAC’s, IED’s, relays, and HMI? An example why we are asking this question is 2.06.C.4 specifies "Drag and drop configuration". Do all of the components need to be drag and drop configuration?**

**Answer:**

The SCADA Vendors (SVC) shall be responsible for all networks and SCADA designs; all configurations including the RTAC’s, IED’s, relays and SVC provided HMI. Section 16900 Part 2.06.C.4 specifically covers the requirements for the HMI screens. It is the responsibility of the SVC to develop standard templates. Not all IED’s needs to be drag and drop but shall not require complex programming.

**Question 2: Section 16900 Part 2.06.G (page 16900-18) - please clarify this. Not clear on what "on board" means?**

**Answer:**

The SCADA Vendors (SVC) proposed SCADA shall not require third party or custom diagnostics tools. Troubleshooting and O&M diagnostics shall be built into the completed SCADA System and accessible by UAF O&M.

**Question 3: Section 16900 Part 1.02.E.24 (page 16900-4) - Specification states to establish communications and data exchange to UAF existing OSI Soft PI and ABB Infi-90. What type of data and points needed is not specified in the specification?**

**Answer:**

The contract documents provide functional performance requirement that the SVC shall provide a completed SCADA System.

The SVC shall use Division 16780 and the HGlxx series drawings that summarize types and quantity of IED and hardwire I/O points for accurate cost estimate for this RFP. A detailed I/O list is not required.

The contractor shall make use of all capabilities, metered values, and other data available from the relays and other IED to meet the requirements. Note that some specific requirements in regard to electrical system operation are found in specification 16900 paragraph 2.03 and subparagraphs. The E8.xx series drawings also show some specific minimum requirements that are driven by existing equipment and other previously defined project needs and preferences. The entire SCADA database shall be made available to UAF’s existing OSI Soft PI and ABB Infi-90 system via OPC. SVC shall provide a recommended list of tags based on the proposed system, functionality, configuration and final approval by UAF.

**Question 4: SCADA drawings HGl101-03 Sheet 1 and HGl101-04 Sheet 1 list a summary of I/O interfaces for breakers at the bottom of drawings. Points list in specification and drawings do not list the description (current, voltages, power, frequency?) of analog input and outputs and signal type (4-20mA? 0-10v?)?**
Refer to answer to Question #3 and #5. The HGI sheets provide the SVC a summary of the types and quantity of IED and hardwire I/O points for accurate cost estimate for this RFP. A detailed I/O list is the responsibility of the SVC and shall be determined by the SVC during detail design.

**Question 5: Are there any existing wiring diagrams and schematics for the Atkinson Plant breakers? Only a diagram of PPT1 appears to be included in the drawing package?**

**Answer:**

Refer to Section 01010 Part 1.02 Summary of Work, “The Contractor shall provide all engineering and detailed design to successfully complete the SCADA System, supervise and provide engineering support for construction by UAF”. During the design phase the SVC shall “Gather data on existing equipment and systems”; this includes all existing diagrams and schematics. The SVC shall field verify any drawings or create drawings as required for the SCADA design.

**Question 6: Can we replace SEL-3530s (RTAC Units) with Siemens equivalent product?**

**Answer:**

The SEL-3530’s were selected to provide connectivity of key components in one manufacturer’s product line.

**Question 7: In reviewing the SCADA System RFP, the Anticipated Solicitation Schedule states the project must be complete by June 30, 2012. However, the Specifications Section 01010 1.04 MILESTONES shows milestone 7, project completion, to be completed by October 1, 2012. Which one is correct?**

**Answer:**

The project must be complete by June 30, 2012. Replace “Section 01010 1.04 MILESTONES” with the following:

**1.01 MILESTONES**

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>November 23, 2011</td>
<td>Issue Date</td>
</tr>
<tr>
<td>2</td>
<td>December 2, 2011</td>
<td>Pre-Proposal Conference and Site Inspection</td>
</tr>
<tr>
<td>3</td>
<td>December 8, 2011</td>
<td>Offeror Question Deadline</td>
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<tr>
<td>4</td>
<td>December 16, 2011</td>
<td>Submittal Deadline</td>
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<tr>
<td>5</td>
<td>January 10, 2012</td>
<td>Estimated Award Notification</td>
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<tr>
<td>6</td>
<td>January 24, 2012</td>
<td>Estimated Contract Award Date</td>
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<tr>
<td>7</td>
<td>January 24, 2012</td>
<td>Scheduled Start Date (NTP)</td>
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<tr>
<td>8</td>
<td>February 17, 2012</td>
<td>ARC Flash &amp; Coordination Study Complete</td>
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<tr>
<td>9</td>
<td>March 16, 2012</td>
<td>65% Design Package</td>
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<tr>
<td>10</td>
<td>April 2, 2012</td>
<td>95% Design Package</td>
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<tr>
<td>11</td>
<td>April 2, 2012</td>
<td>IFC (Issue for Construction) Package</td>
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<tr>
<td>Milestone</td>
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<tr>
<td>12</td>
<td>May 28, 2012</td>
<td>Installation Complete</td>
</tr>
<tr>
<td>13</td>
<td>June 8, 2012</td>
<td>Start up and operational testing completed</td>
</tr>
<tr>
<td>14</td>
<td>June 30, 2012</td>
<td>Commissioning complete. Satisfy completion of all Contract Work, including testing, training and commissioning of the project electrical and SCADA control systems and return UAF normal operation.</td>
</tr>
</tbody>
</table>

**Question 8-28: Questions related to RX.XX and E8.XX drawings**

**Answer:**

The RX.XX and EX.xx series drawings provide enough information, diagrams and schematics for proposers' to response to the RFP without additional details.

UAF will make all existing equipment diagrams available to the successful bidder. Section 01010 Part 1.02 Summary of Work, “The Contractor shall provide all engineering and detailed design to successfully complete the SCADA System, supervise and provide engineering support for construction by UAF”. During the design phase the SVC shall “Gather data on existing equipment and systems”; this includes all existing diagrams and schematics. The SVC shall field verify any drawings or create drawings as required for the SCADA design.

The following response is provided as information for the design and implementation. Additional details maybe provided as required for clarification but shall not affect the RFP response.

The existing drawings for the Atkinson Plant are known to be inaccurate. The SVC will be required to field verify the wiring to the extent needed for their modifications.

**Question 8: R4.05 – Drawing indicates the Install of 4C#12 from each feeder breaker to Discrete Signaling Cabinet. Does the SVC design include the termination of this cable in the Discrete Signaling Cabinet, and on the relay, and the design of cross connecting jumpers in the Discrete Signaling Cabinet?**

**Answer:**

Yes, SVC shall provide a complete design.

**Question 9: R4.06 – Drawing indicates the Install of 8C#12 from each supply breaker to Discrete Signaling Cabinet. Does the SVC design include the termination of this cable in the Discrete Signaling Cabinet, and on the relay, and the design of cross connecting jumpers in the Discrete Signaling Cabinet? Drawing indicates that Synchroscope data to come from PX power transducer via 485 network. Can this information come from another source?**

**Answer:**

The SVC shall provide a complete design per preferred hardware as indicated on the drawings. During detail design the successful SVC can discuss other options.

**Question 10: R5.11 – SVC to provide design for new bus PT’s at Atkinson Plant. Are there manufacturer preferences for this PT?**

**Answer:**
Successful SVC shall work with UAF to provide manufacturer preference.

Question 11: R5.12 – SVC to provide design for new PT's for PPT1. Are there manufacturer preferences for this PT? Supply design and Specification for Arc-Flash detectors PPT1 and Units 203 and 204. Will detector be required to trip associated breakers?

Answer:

Successful SVC shall work with UAF to provide manufacturer preference. Yes, detector shall be required to trip associated breakers.

Question 12: R5.13 – SVC to provide design of Demo of GE SR750 relay. Are there detailed drawings of existing mounting and wiring of this relay?

Answer:

Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”.

Question 13: R6.21 – SVC to design SEL-751A relay panel, door demo and door layout for 52F2 breaker. Are there detailed drawings of the existing door layout?

Answer:

Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”.

Question 14: R6.22 – SVC to provide design of 86A and 86B lockout relay. SVC to provide Discrete I/O signaling, and VT/CT connections between the exiting switchgear and new switchgear addition and circuits to external points indicated. SVC to provide new branch fuse holder and PT circuit to the V-sync inputs of the DSLC unit in diesel generator control cabinet. SVC to provide design and construction engineering support for installation of non medium voltage wiring and devices in new switchgear at the diesel plant. Is there detailed layout, schematic and wiring drawings available for the existing equipment?

Answer:

Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”.

Question 15: R6.23 – SVC to provide transformer cabling and relay design for diesel plant switchgear transformers. Will the transformer manufacturer schematics and wiring diagrams be provided? SVC to provide design for RTD circuit to grounding transformer. Has the RTD been selected by UAF? SVC to provide relay cabinet 1 for KBG installation. Can UAF provide Sheet E7.39?

Answer:

Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”. Transformer cabling and relaying diagrams will be available to the SVC. Successful SVC shall work with UAF to provide manufacturer preference. Drawing E7.39 attached. The reference to drawing E7.39 is in error, it should refer to drawing R7.33 which is included in the package.

Question 16: R6.24 – SVC to provide CT/VT connections between existing switchgear and new switchgear 52F3. Will UAF provide detailed layout, schematic and wiring diagrams for existing
switchgear? SVC to provide design for under voltage relay wiring and fuses. Is SVC to supply relay or just specify it? Is there a preferred manufacturer for this relay?

Answer:

Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”. Successful SVC shall work with UAF to provide manufacturer preference. 52F3 is part of the new unit 303 that shall be provided by UAF for SVC to complete design.

Question 17: R6.25 – SVC to provide lockout relay 86C. Is SVC to supply relay or just specify it? Is there a preferred manufacturer for this relay? SVC to provide design for modifications to exiting PPT2 breaker. Does UAF already own this 751 relay? Will it need to be modified with the other relays to add communications port? SVC to design and specify new Under-Voltage relay. Will this be the same type of relay supplied under R6.24? SVC to design PT circuits to relocated them from the Diesel Generator Control Cabinet. Will UAF provide detailed schematics and wiring diagrams for the Generator control cabinet?

Answer:

Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”. Successful SVC shall work with UAF to provide manufacturer preference. SVC shall specify relay and add communications.

Question 18: R6.26 – SVC to provide test switch wiring design. SVC to provide design to modify 52F1 breaker and provide construction support for all non medium voltage wiring and devices. Is there a preferred manufacturer for the test switches?

Answer:

Successful SVC shall work with UAF to provide manufacturer preference.

Question 19: R7.31 – SVC to provide design changes to existing relay cabinet 2. Sheets R7.4x and E8.7x seem to describe work on UVP1B1. Can UAF provide a description of the changes to relay cabinet 2?

Answer:

SVC shall design communications, associated relay settings and program the SCADA system to integrate to Cabinet 2. Detail to be provided to the successful SVC. See drawing R7.33.

Question 20: R7.32 - SVC to design replacement of manual transfer switch with a permissive control switch. Redesign the voltage inputs to the GE relays to be fed from main bus PTs. Design several new lockout circuits. Design new 52A circuit for DPGT breaker to “remote equipment?

Answer:

SVC shall design for remote operation.

Question 21: R7.33 – SVC to design, procure, assemble and supervise installation of new relay cabinet 1. Equipment includes a Woodward EGCP-3 MC, test switches, SEL-487E, Square D CM4250, and power transducer. Is Woodward EGCP-3 MC existing equipment requiring demolition, or will UAF provide new equipment for relay panel 1?
Woodward EGCP-3 shall be provided by UAF. SVC shall configure. It is not currently installed.

**Question 22:** R7.43 - Synchroscope data to come from PX power transducer via 485 network for UVP1B1 breaker. Can this information come from another source?

**Answer:**

The SVC shall provide a complete design per preferred hardwire as indicated on the drawings. During detail design the successful SVC can discuss other options.

**Question 23:** R7.44 - SVC to review UAF work to “further define work”. Will UAF work impact SVC scope or schedule? SVC to provide design and material specifications for connection to new and installed circuits indicated, including but not limited to SCADA network and components, relay discrete I/O and signaling, and circuits to external points indicated. will UAF provide detailed schematics and wiring diagrams for SVC design?

**Answer:**

SVC shall coordinate schedule with UAF. Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”.

**Question 24:** E8.15 – Drawing indicates no lockout relay, however notes indicate new SCADA connection for a lockout relay form the from GE relays. Is GE programmed for this function? Will SVC scope include modification of GE relay programming for this?

**Answer:**

Yes, SVC shall modify relay.

**Question 25:** E8.33 – Note 3 what does “Logical “or” connection, signal cannot travel against arrow.” Mean? Does SVC Design include relay controls and discrete inputs, and lockout relays?

**Answer:**

Yes.

**Question 26:** E8.34 – SVC to provide design of transformer differential relay Diesel plant switchgear. Will UAF provide details schematics and wiring diagrams of the transformer connections?

**Answer:**

Refer to response for “Question 3-23: Questions related to RX.XX and E8.XX drawings”.

**Question 27:** E8.52 - Is field modify relays procured on or about April 2011 to add a second serial port, see note sheet E8.53 in SVC scope? This Seems to effect 22 relays at CSB and include relays at the Utility Tie facility.

**Answer:**

SVC scope of work.
Question 28:E8.74 – Is updating firmware in 387A, and updating 311C with GVEA provided firmware update and programming in SVC scope?

Answer:

Yes, coordination with GVEA is required.

All other terms and conditions remain the same.

Sincerely,

UNIVERSITY OF ALASKA FAIRBANKS

Rick A. Danielson
Contracting Officer
ACKNOWLEDGMENT; Amendment #2, RFP12P0010RD, UAF Electrical Supervisory Control and Data Acquisition System (SCADA)
This Amendment must be signed and returned with your proposal or otherwise acknowledged prior to the closing date and time listed above. If you have already submitted a proposal and need to make corrections, submit a corrected proposal prior to the closing. The closing date is Friday, December 16, 2011, 5:00 PM local time.

Offeror

____________________________________________________
Name & Title

____________________________________________________
Signature

____________________________________________________
Date