

Request for Qualifications (Architect / Engineer)

State of Ohio Standard Forms and Documents

Administration of Project: Local Higher Education

Project Name	<u>Controls Integration- Central Energy System</u>	Response Deadline	<u>01/18/16</u>	<u>2:00 P.M.</u> local time
Project Location	<u>Ohio University</u>	Project Number	<u>OHU-151918</u>	
City / County	<u>Athens / Athens</u>	Project Manager	<u>Brody Bauers</u>	
Owner	<u>Ohio University</u>	Contracting Authority	<u>Local Higher Education</u>	
Delivery Method	<u>General Contracting</u>	Prevailing Wages	<u>State</u>	
No. of paper copies requested (stapled, not bound)	<u>3</u>	No. of electronic copies requested (PDF)	<u>1</u>	

Submit the requested number of Statements of Qualifications (Form F110-330) directly to Brody Bauers at 160 W. Union Street, Suite 154, Athens, Ohio 45701. See Section H of this RFQ for additional submittal instructions.

Submit all questions regarding this RFQ in writing to Brody Bauers at bauersb@ohio.edu with the project number included in the subject line (no phone calls please). Questions will be answered and posted to the Opportunities page on the OFCC website at <http://ofcc.ohio.gov> on a regular basis until one week before the response deadline. The name of the party submitting a question will not be included on the Q&A document.

Project Overview

A. Project Description

Ohio University is seeking qualifications packages from industrial control integration firms to support the following projects:

- West Green Chilled Water Plant Controls Upgrade
- Permanent Boiler Replacement Project
- Main Substation replacement project

Each project is distinct, with its own schedules, requirements and bid packages. The intent is to utilize the same control OEMs that currently provide control functions to the Lausche heating plant and main substation, to provide a single unified control system. The existing controls/HMIs are Allen Bradley Controllogix and Wonderware. The completed control system must interface with various BACNET building control systems and the campus IT backbone, forming a wide area network.

B. Scope of Services

The integrator will provide the following general services for each project:

- Support the lead design firm on the design development of controls issues, including refinement of the sequences of operation, physical space and layout drawings for the hardware and HMIs, and selection of instrumentation.
- Prepare hardware and installation specifications suitable for either independent bidding or inclusion with the primary GC bid package.
- Provide BACNET integration to existing building control systems.
- Provide complete web integration and remote access to HMI functions
- Prepare all wiring diagrams.
- Prepare all software and programming suitable and ready for download. Graphical blockware and ladder logic is preferred
- Prepare all hardwired I/O, including control, instrumentation, and alarms.
- Prepare all HMI programming, inclusive of control functions, graphics and alarms, ready for download.
- Prepare historian functionality and programming, develop new screens as appropriate.
- Program new historian and port existing data into it.
- Develop all software documentation, inclusive of descriptions, sequences, ladder logic, SAMA drawings, initial and final tuning parameters
- Develop all hardware descriptions, inclusive of hardware layout drawings, I/O lists, I/O and hardware wiring and interconnection diagrams
- Write and assemble all applicable O&M manuals.
- Provide startup support to:
 - Download all software
 - Verify all field wiring
 - Verify hardware installation

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- Develop and install initial tuning parameters prior to startup
- Tune the systems
- Verify control functionality of hardware and logic prior to startup
- Provide direct support during startup for each project including rewiring and software revisions as necessary.
- Prepare and maintain a commissioning log
- Document final logic, software, hardware, field I/O and tuning parameters.

Project Descriptions:

- West Green Chilled Water Plant Controls Upgrade scope:
 - Replace most control valves in a 7500T central chilled water plant.
 - Re-pipe the cooling towers for independent and automated sequencing
 - Reconfigure the chemical treatment systems, instruments and controls.
 - Enable automatic chiller start/stop and control
 - Enable automatic chiller water pump start/stop, sequencing and control of the VFDs
 - Provide automatic protective functions for the pumps
 - Provide automatic chiller sequencing for automatic load control and protective functions and trips
 - Provide chilled water metering and historian functions
 - Provide chiller plant controls/HMIs in the Lausche control room, the chiller floor and the pump deck.
 - Lead Design firm: RMF
 - Schedule: Spring 2016
- Permanent Boiler Replacement Project scope:
 - Install two new ~ 110Klb/hr dual fuel boilers with new combustion controls.
 - Provide new combustion controls on one existing "gas only" boiler and one coal boiler converted to gas.
 - Provide header pressure controls for PRVs on the boiler header, 125psi header and 15 psi header.
 - Reconfigure auxiliary prime movers.
 - Provide CEMS and HMI interfaces if required.
 - Provide all balance of plant control functions (typical for a large boiler plant)
 - Provide energy/steam metering and historian functions
 - Lead Design firm: RMF
 - Schedule: 2016-17
- Main Substation replacement project scope:
 - Stabilize the substation foundations.
 - Add a third 21/26/33MVA 69kV transformer and SF6 circuit switcher.
 - Add resistance grounding to two existing transformers and the new transformer.
 - Install new transformer protective functions.
 - Provide metering on the primary and secondary windings of the transformers and circuit breakers.
 - Provide interface with AEPs equipment and metering.
 - Replace the primary switchgear with a three bus, ring tie, differentially protected lineup.
 - Provide data logging and historian functionality to the meter and relay components.
 - Lead Design Firm: TBD
 - Schedule: 2016-17

The selected Architect/Engineer (A/E) [controls integrator], as a portion of its required Scope of Services and prior to submitting its proposals, will discuss and clarify with the Owner and/or the Contracting Authority, the cost breakdown of the Architect/Engineer Agreement detailed cost components to address the Owner's project requirements. Participate in the Encouraging Growth, Diversity & Equity (EDGE) Program as required by statute and the Agreement.

As required by the Agreement, and as properly authorized, provide the following categories of services: Program Verification, Schematic Design, Design Development, Construction Document Preparation, Bid and Award Support, Conformed Documents, Construction Administration, Post-Construction, and Additional Services of all types.

Refer to the *Ohio Facilities Construction Manual* for additional information about the type and extent of services required for each. A copy of the standard Agreement can be obtained at the OFCC website at <http://ofcc.ohio.gov>.

During the construction period, provide not less than 8 hours (excluding travel time) on-site construction administration services each week, including (1) attendance at progress meetings, (2) a written field report of each site visit, (3) on-site representation comprised of the A/E and its consultant staff involved in the primary design of the project, all having relevant and appropriate types of construction administration experience.

For purposes of completing the Relevant Project Experience Matrix in Section F of the Statement of Qualifications (Form F110-330), below is a list of relevant scope of work requirements and provide previous experience with the following for this RFQ:

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General:

1. Allen Bradley Controllogix.
2. Wonderware HMI and Historian- or equal
3. Lead on site acceptance testing on large scale projects
4. Chilled water plant control systems using industrial controls
5. Integrating industrial chiller controls to BACNET building systems on a large college campus
6. Large industrial and campus heating plants
7. Electric substation controls
8. Training of Owners staff

C. Funding / Estimated Budget

Total Project Cost	<u>\$26,000,000</u>	State Funding	<u>\$0</u>
Construction Cost	<u>\$20,000,000</u>	Other Funding	<u>\$26,000,000</u>
Estimated A/E Fee	<u>3.0% to 4.5%</u>		

NOTE: The A/E fee percentage for this project includes all professional design services, and consultant services necessary for proper completion of the Basic Services for the successful completion of the project, including but not limited to: review and verification of the Program of Requirements provided by the Owner, validation of existing site conditions (but not subsurface or hidden conditions), preparation of cost estimates and design schedules for the project. Fees may be negotiated and allocated for Additional Services (e.g., creation of a Program of Requirements, extensive evaluation or validation of site conditions, extensive pre-design investigations, code-required special inspection and testing, Quality Assurance testing during the construction period, and testing due to unforeseen conditions).

D. Services Required (see note below)

Primary	<u>Industrial controls design</u>
	<u>Specification of bid packages, hardware</u>
Secondary	<u>and installation</u>
	<u>Develop all programming and software</u>
	<u>Develop initial and final tuning parameters</u>
	<u>Develop new touch screens</u>
	<u>Startup support and comissioning</u>
	<u>Owner training</u>
Others	<u>Long term support</u>

E. Anticipated Schedule

Professional Services Start	<u>03 / 16</u>
Construction Notice to Proceed	<u>04 / 16</u>
Substantial Completion of all Work	<u>12 / 18</u>
Professional Services Completed	<u>12 / 18</u>

F. EDGE Participation Goal

Percent of <i>initial</i> TOTAL A/E Fee	<u>5.0%</u>
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NOTE: The primary A/E shall be (1) a registered architect holding a license and certificate of authorization issued by the Ohio Architects Board pursuant to ORC Chapter 4703, (2) a landscape architect holding a license and certificate of authorization issued by the Ohio Landscape Architects Board pursuant to ORC Chapter 4703, or (3) a professional engineer or professional surveyor holding a license and certificate of authorization issued by the Ohio Engineers and Surveyors Board pursuant to ORC Chapter 4733.

G. Evaluation Criteria for Selection

Ohio required components:

- Demonstrated ability to meet Owner's programmed project vision, scope, budget, and schedule on previous projects.
- Previous experience compatible with the proposed project (e.g., type, size).
- Relevant past work of prospective firm's proposed consultants.
- Past performance of prospective firm and its proposed consultants.
- Qualifications and experience of individuals directly involved with the project.
- Proposer's previous experience (numbers of projects, sizes of projects) when working with its proposed consultants.
- Specification writing credentials and experience.
- Experience and capabilities of creating or using Critical Path Method (CPM) schedules and of using CPM schedules as a project management resource.
- Approach to and success of using partnering and Alternative Dispute Resolution.
- Proximity of prospective firms to the project site.
- Proposer's apparent resources and capacity to meet the needs of this project.
- The selected A/E and all its consultants must have the capability to use the Internet within their normal business location(s) during normal business hours.

Project Specific Components

- Number of years in business
- Size of firm
- Location of firm
- Describe the ability of the firm to provide long term support
- List of key reference installations broken down by chiller plants, steam plants, boiler combustion controls and substations
- List the total number of chiller plants where the firm has done a similar control scope. Provide a breakdown showing what PLC OEMs and head end OEMs were used.
- List the total number of boiler plants where the firm has done a similar control scope. Provide a breakdown showing what PLC OEMs and head end OEMs were used.
- List the total number of boiler combustion control system. Provide a breakdown showing what PLC OEMs and head end OEMs were used.
- List the total number of transmission voltage substations where the firm has done a similar control scope. Provide a breakdown showing what PLC OEMs and head end OEMs were used.
- Furnish specific references to college campuses.
- List the PLC systems OEM the firm is fluent with and which is preferred
- List the head end systems the firm is fluent with which is preferred
- Describe your firms preferred contracting approach for hardware and software
- Give the typical turnaround time to develop controls for a chiller project
- Give the typical turnaround time to develop controls for a boiler plant project
- Give the typical turnaround time to develop controls for a substation project
- Provide references where your firm has provided customer training and long term support.

Interested A/E firms are required to submit the Commitment to Participate in the EDGE Business Assistance Program form in its Statement of Qualifications (Form F110-330) submitted in response to the RFQ, to indicate its intent to contract with and use EDGE-certified Business Enterprise(s), as a part of the A/E's team. The Intent to Contract and to Perform and / or waiver request letter and Demonstration of Good Faith Effort form(s) with complete documentation must be attached to the A/E's Technical Proposal. Both forms can be accessed via the OFCC website at <http://ofcc.ohio.gov>. The Intent to Contract and to Perform form is again required at the Fee Proposal stage.

For all Statements of Qualifications, please identify the EDGE-certified Business Enterprises, by name, which will participate in the delivery of the proposed professional services solicited in the RFQ.

H. Submittal Instructions

Firms are required to submit the current version of Statement of Qualifications (Form F110-330) available via the OFCC website at <http://ofcc.ohio.gov>.

Electronic submittals should be combined into one PDF file named with the project number listed on the RFQ and your firm's name. Use the "print" feature of Adobe Acrobat or similar software for creating a PDF rather than using a scanner. If possible, please reduce the file size of the PDF. In Acrobat, go to Advanced, then PDF Optimizer. Also, please label the CD or DVD and the sleeve with the project number and firm name if applicable.

Paper copies of the Statement of Qualifications, if requested, should be stapled only. Do not use special bindings or coverings of any type. Cover letters and transmittals are not necessary.

Facsimile copies of the Statement of Qualifications will not be accepted.

Firms are requested to identify professional registrations, memberships and credentials including: LEED GA, LEED AP, LEED AP+, CCCA, CCM, CCS, CDT, CPE, DBIA, and any other appropriate design and construction industry credentials. Identify that information on the resume page for individual in Block 22, Section E of the F110-330 form.

Architect / Engineer Selection Rating Form

State of Ohio Standard Forms and Documents

Project Name Controls Integration- Central Energy System Proposer Firm _____
 Project Number OHU-151918 City, State, Zip _____

Selection Criteria		Value	Score
1. Primary Firm Location, Workload and Size (Maximum 10 points)			
a. Proximity of firm to project site	Less than 100 miles	5	
	100 miles to 200 miles	2	
	More than 200 miles	0	
b. Amount of fees awarded by Contracting Authority in previous 24 months	Less than \$100,000	2	
	\$100,000 to \$200,000	1	
	More than \$200,000	0	
c. Number of licensed professionals	Less than 5 professionals	3	Max = 3
	5 to 10 professionals	2	
	More than 10 professionals	1	
2. Primary Firm Qualifications (Maximum 30 points)			
a. Project management lead	Experience / ability of project manager to manage scope / budget / schedule / quality	0 - 10	Max = 20
b. Project design lead	Experience / creativity of project designer to achieve owner's vision and requirements	0 - 10	
c. Technical staff	Experience / ability of technical staff to create fully coordinated construction documents	0 - 5	
d. Construction administration staff	Experience / ability of field representative to identify and solve issues during construction	0 - 5	
3. Key Consultant Qualifications (Maximum 20 points)			
a. Key discipline leads	Experience / ability of key consultants to perform effectively and collaboratively	0 - 15	
b. Proposed EDGE-certified Consultant participation*	One point for every 2 percent increase in professional services over the EDGE participation goal	0 - 5	
4. Overall Team Qualifications (Maximum 10 points)			
a. Previous team collaboration	Less than 4 sample projects	1	Max = 3
	4 to 8 sample projects	2	
	More than 8 sample projects	3	
b. LEED** Registered / Certified project experience	Registered projects	1	Max = 2
	Certified projects	2	
c. BIM project experience	Training and knowledge	1	Max = 3
	Direct project experience	3	
d. Team organization	Clarity of responsibility / communication demonstrated by table of organization	0 - 2	
5. Overall Team Experience (Maximum 30 points)			
a. Previous team performance	Past performance as indicated by evaluations and letters of reference	0 - 10	
b. Experience with similar projects / delivery methods	Less than 4 projects	0 - 3	
	4 to 8 projects	4 - 6	
	More than 8 projects	7 - 10	
c. Budget and schedule management	Performance in completing projects within original construction budget and schedule	0 - 5	
d. Knowledge of Ohio Capital Improvements process	Less than 3 projects	0 - 1	
	3 to 8 projects	2 - 3	
	More than 8 projects	4 - 5	
		Subtotal	

* Must be comprised of professional design services consulting firm(s) and NOT the lead firm
 ** Leadership in Energy & Environmental Design administered by the Green Building Certification Institute

Notes:

Evaluator:

Name _____

Signature _____

Date _____