REQUEST FOR QUALIFICATIONS

Design/Build
Project Number CP160801
Power Plant - Boiler 10
Gas Burner Replacement

University of Missouri
Campus Facilities
Planning, Design and Construction
Columbia, Missouri

February 18, 2016
ADVERTISEMENT FOR QUALIFICATIONS/PROPOSALS:

Qualifications for Design/Build Firm for

Project Number CP160801 - Power Plant - Boiler 10 Gas Burner Replacement
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI

will be received by the Curators of the University of Missouri, Owner, at Campus Facilities, Planning, Design & Construction, Room L100 (Front Reception Desk), General Services Building, University of Missouri, Columbia, Missouri 65211, until 1:30 p.m. Central Time (CT), March 4th, 2016. The names of the respondent firms will be read aloud immediately following the closing time for receipt of qualifications in Room 194A. No other information will be shared publicly until the step-one evaluation is complete.

Complete advertisement for qualification/proposal documents may be viewed online at: http://www.cf.missouri.edu/pdc/adsite/ad.html, under heading “Design-Bid”. Questions should be directed to Samuel V Puckett, P.E. Project Manager at 573-882-6327 or pucketts@missouri.edu.

The Owner reserves the right to waive informalities in bids and to reject any and all bids.

Individuals with special needs as addressed by the Americans with Disabilities Act may contact (573) 882-1133.

Advertisement Date: February 18, 2016

Gary L. Ward
Associate Vice Chancellor - Facilities
University of Missouri
REQUEST FOR QUALIFICATIONS - DESIGN/BUILD FIRM

Advertisement Date: February 18, 2016

Project No. CP160801 - Power Plant - Boiler 10 Gas Burner Replacement

The University of Missouri (MU) is requesting qualifications from firms to provide Design/Build services for the planning, design, equipment supply, installation, and startup and commissioning required to restore the natural gas firing capability of Boiler 10 at the University of Missouri’s Power Plant.

Qualifications will be received at Campus Facilities, Room L100 (Front Reception Desk), General Services Building, University of Missouri - Columbia, Columbia, Missouri 65211, until 1:30 p.m. CT, March 4, 2016. The names of the respondents will be read aloud immediately following receipt of qualifications in Room 194A. No other information will be shared until the evaluation process is complete.

Project Scope

This project consists of the planning, design, equipment supply, installation, and startup and commissioning required to restore the natural gas firing capability of Boiler 10.

Boiler 10 was installed in 1970 and is a Riley balanced-draft spreader stoker unit. Steam is generated at 690 degrees F at 425 psig with a nominal maximum capacity of 200,000 lb/hr. The original installation included four horizontally opposed Peabody gas-burners that have been decommissioned for over 20 years.

The ability to fire solid fuels in Boiler 10 must be retained. In addition, the ability to fire natural gas and solid fuels simultaneously will be part of this Project.

In general, the work shall consist of the following:

1. Demolition shall consist of:
   a. Originally installed Peabody burner components.
   b. Boiler 10 natural gas supply piping.
   c. Boiler 10 compressed air piping associated with original gas burners.
   d. Boiler 10 electrical devices and wiring associated with original gas burners.
   e. Combustion air dampers for natural gas firing.
   f. Undergrate air dampers for solid fuel firing.

2. Structural work shall consist of:
   a. Modification of existing windboxes, if deemed necessary by Design/Builder.
   b. Modification of existing combustion air ductwork as required to accommodate new dampers and flow elements.
3. Mechanical work shall consist of furnishing and installing the following:
   a. Four new natural gas burners.
   b. Natural gas fuel trains.
   c. Combustion air dampers for natural gas firing and solid fuel firing.
   d. Combustion air flow elements.
   e. Eight manually operated knife-gate valves used to isolate the ash reinjection system during natural gas firing.
   f. Scanner cooling air blower skid.
   g. Instrumentation.
   h. Pipe supports.

4. Electrical work shall consist of furnishing and installing the following:
   a. A complete cable and raceway system.
   b. Motor starters, local disconnects, and all other electrical ancillaries required to install the scanner cooling air blower skid.

5. Controls work shall consist of furnishing and installing the following:
   a. Burner management system (BMS) including new cabinet enclosure.
   b. SAMA logic diagrams for natural gas firing, solid fuel firing, and co-firing modes of operation.
   c. Written theory of operation.

6. Start-Up and Commissioning Support:
   a. Provide all supervision and labor as required for initial operation of all boiler systems, equipment, and appurtenances installed under this Contract until they are accepted for operation.
   b. Perform all required operational checks and adjustments during initial operation.
   c. Make adjustments and modifications as required to make equipment and machinery furnished under this Contract operate properly and perform in accordance with guarantees.
   d. Re-pack valves, re-tighten flanges, tighten valve bonnets, and make repairs and adjustments for all piping systems, equipment, and appurtenances installed under this Contract until they are in successful operation.
   e. Any warranty work required shall be done at the Design/Builder's expense and in accordance with the General Conditions.

7. Work By Others:
   a. Emissions compliance testing. Design/Builder will work closely with Owner’s third-party emissions testing contractor to execute emissions compliance testing.
   b. Environmental permitting.
   c. Re-configuration of Owner’s existing Combustion Control System (CCS).

The University of Missouri has contracted with Sega Inc. to serve as the Owner’s Technical Representative for this Project.
**Request for Qualifications**

**Design/Build CP160801 - Power Plant - Boiler 10 Gas Burner Replacement**

**Project Schedule**

The following schedule is subject to change but represents the University's intent.

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFQ Design/Build Advertisement</td>
<td>February 18, 2016</td>
</tr>
<tr>
<td>Receive Statement of Qualifications</td>
<td>March 4, 2016</td>
</tr>
<tr>
<td>Issue RFP to Short List</td>
<td>March 17, 2016</td>
</tr>
<tr>
<td>Pre-Proposal Meeting and Walkthru</td>
<td>March 24, 2016</td>
</tr>
<tr>
<td>Proposal Submittals &amp; Presentations</td>
<td>April 28, 2016</td>
</tr>
<tr>
<td>Award of Design/Build Contractor</td>
<td>May 10, 2016</td>
</tr>
<tr>
<td>Notice to Proceed</td>
<td>June 3, 2016</td>
</tr>
<tr>
<td>Project Completion</td>
<td>June 1, 2017</td>
</tr>
</tbody>
</table>

Note: Boiler 10 will remain in service until March 1, 2017.

**Project Budget**

The Design/Build construction funds estimated for the project is $2,200,000. Proposals that exceed this value may be rejected.

**The Design/Build Evaluation Process**

Selection of the Design/Build Team is a two-step process. The first step of the process begins with an RFQ which is open to all interested parties. Each interested party will respond with a Statement of Qualifications (SOQ) by time and date indicated in the advertisement. A project review panel will evaluate and rate the SOQ’s, resulting in a short list of three (3) firms which will be issued a Request for Proposal (RFP). Step 1 is a competitive process with points awarded for each category of the selection criteria with a maximum of 350 points available. The three (3) firms with the highest point total will comprise the short list.

Step 2 will commence with the issuance of the RFP followed by a mandatory on-site Pre-Proposal meeting and a site tour. Each short list firm shall submit a proposal which responds to the Design/Build Project requirements and guidelines as outlined in the RFP. Each firm will be scheduled a time to present their proposal in person and to respond to questions from the project review panel. At the beginning of the firm's presentation/interview, each firm will submit a sealed lump-sum cost proposal. All cost proposals shall be sealed to maintain confidentiality until the interview process is completed.

At the completion of the presentation/interview process the review panel will rank the proposals based on the Project Proposal Criteria listed in the Design/Build Evaluation Process below. Total points available in the Design/Build Evaluation Process is 650.
After all interviews have been completed and ranked, the University will open the cost proposals. The firm with the lowest cost will be awarded 1000 points and the other firms will be awarded points prorated based on the costs.

The firm with the highest combined point total from Step 1 and Step 2 (qualifications/selection criteria + price points) will be deemed to provide the best value and will be the apparent successful firm. The university will then engage in negotiations with the apparent successful firm to establish final contract terms. If the university is unable to negotiate a satisfactory contract with the apparent successful firm, negotiations will cease and the university will negotiate with the next highest ranked firm and so on until an acceptable contract is reached or negotiations end. The university will make the determination as to when negotiations are at a stalemate and are no longer productive.

**Design/Build Evaluation Process**

The purpose of the evaluation process is to establish, through the application of uniform criteria, the quality of each proposal. Any proposals which have major deviations from the Design/Build Documents will be considered non-responsive. Each proposal will be evaluated by an Evaluation Committee appointed the Owner (the university).

Point values will be assigned up to the maximums for each category in the following table:

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifications (Step 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Design/Builder's Financial Capacity</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>2. Design/Builder's Relevant Experience</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>3. Qualifications of Key Personnel</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>4. Design/Builders's Technical Capabilities</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>5. Design/Builder's Missouri Firm Status</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Total Points for Qualifications</td>
<td>350</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Proposal Criteria (Step 2)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>System Guarantees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. NOx</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>2. CO</td>
<td>50</td>
<td></td>
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<tr>
<td>3. MCR Steam Flow</td>
<td>50</td>
<td></td>
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<tr>
<td>4. Maximum Heat Input</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>5. Turndown</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Total Points for System Guarantees</td>
<td>250</td>
<td></td>
</tr>
</tbody>
</table>
Specification Compliance
1. General Requirements 50
2. Mechanical 75
3. Electrical and Controls 75
4. Structural 50

Total Points for Specification Compliance 250

Enhanced Features 100
Supplier Diversity Participation 50

Cost 1000

Total Points 2000

During the evaluation process it may become apparent that one or more of the proposals do not qualify for consideration. If so determined by the Evaluation Committee, these proposals will be returned to the Proposer as non-responsive. Any proposal that accumulates less than 70 percent of the points assigned to each category and/or that exceeds the project budget may be deemed non-responsive.

**STEP 1 SELECTION CRITERIA**

**Statement of Qualifications**

The Proposer SOQ should be organized to respond to the following five (5) key components:

1. Design/Builder’s Financial Capacity;
2. Design/Builder’s Relevant Experience;
3. Qualifications of Key Personnel;
4. Design/Builder’s Technical Capabilities;
5. Design/Builder’s Missouri Firm Status

Each respondent shall submit two (2) electronic copies of the Statement of Qualifications (two (2) separate CD’s or USB flash drives), one (1) paper original and six (6) paper copies consisting of a maximum of 20 one (1) sided 8 ½ x 11 pages. Each paper submission shall be bound with covers front and back arranged in the order of the RFQ Step 1 Selection Criteria as stated below.

**Qualifications: (350 points)**

1. Provide a copy of the Design/Builder’s latest audited financial statement. Statements may be provided in a sealed envelope. If the Design/Builder is a subsidiary of another company, audited financial data on the parent company shall be included also.
2. Design/Builder shall provide a summary of four (4) recent (within the last five (5) years) Multiple Burner Gas Firing System projects completed on stoker boilers of similar size, type, and degree of complexity as this Project. Include a general description of the projects (include co-firing and FD fan re-use discussion if applicable), budget amounts, schedules, predicted vs. actual performance, and client contact information as described below:
   a. Name of Customer
   b. Customer Contact
   c. Address
   d. Customer Contact Telephone Number
   e. Type and Size of Boiler
   f. Indicate Whether or Not Co-Firing was Included
   g. Indicate Whether or Not FD Fan was reused
   h. Approximate Date of Construction
3. Provide an organizational chart illustrating the organizational structure to be utilized on this Project and briefly describe the duties of each individual.
   a. Provide resumes, qualifications, certifications, and experience of personnel to be assigned to this Project and their specific roles and responsibilities. Include the last four (4) projects they have been involved with and their roles and responsibilities on those projects.
4. Provide a detailed summary of Design/Builder’s technical and engineering services describing methodology and practices utilized in the planning and design phase. Describe key project elements associated with a co-firing project which require specific attention to detail in order to minimize and control project risks.
5. Provide Design/Builder’s Missouri firm status.

Establishement of Apparent Best Proposal

After the review of proposals, the following equation will be used:

$$\text{Qualifications Point Value (350 Maximum)}$$
$$+$$
$$\text{(Lowest Cost Responsive Proposal ÷ Design/Builder's Cost Proposal) x 1000}$$
$$+$$
$$\text{System Guarantee Point Value (250 Maximum)}$$
$$+$$
$$\text{Specification Compliance Point Value (250 Maximum)}$$
$$+$$
$$\text{Enhanced Features (100 Maximum)}$$
$$+$$
$$\text{Supplier Diversity Point Value (50 Maximum)}$$
$$= \text{Total Points}$$

The highest combined point total is thus determined to be the apparent best proposal, to which the contract will be awarded.