

**COUNCIL ACTION FORM**

**SUBJECT: POWER PLANT FUEL CONVERSION – AWARD OF DISTRIBUTED CONTROL SYSTEM (DCS)**

**BACKGROUND:**

On November 12, 2013, the City Council voted to convert the City’s Power Plant from coal to natural gas. Implementing this decision requires a significant amount of engineering, installation of equipment, and modification and construction in the Power Plant.

In conjunction with this conversion, on November 25, 2014 the City Council approved preliminary plans and specifications for the Distributed Control System. **This specific phase of the project is to purchase the new Distributed Control System (DCS). The DCS is a dedicated control system, made up of hardware and software, used for boiler controls and power plant systems. It is a crucial coordinating and communication system needed to operate the plant.**

Bid documents were issued to fifteen companies. The bid was advertised on the Current Bid Opportunities section of the Purchasing webpage and a Legal Notice was published in the Ames Tribune.

On January 28, 2015, three bids were received as shown below:

<b>BIDDER</b>	<b>TOTAL</b>
Schneider Electric Houston, TX	\$1,516,350
Emerson Process Management Power & Water Solutions, Inc. Pittsburgh, PA	\$1,595,000
ABB Wickliffe, OH	\$2,650,000

City staff worked with Sargent & Lundy (S&L) to perform a careful and extensive evaluation of the bids. ABB’s proposal price was significantly higher than the other two bidders. For this reason staff advised S&L not to continue with the detailed technical evaluation of ABB. After reviewing the remaining two proposals, questions for the remaining two bidders were sent.

The criteria and weights used for the evaluation of the bids are provided below. The weight for each criterion was applied to each bidder's score to determine an overall technical score.

**Criteria Weight**

Installation Costs	20%
Overall Design	20%
Experience and Reputation	20%
Bid Quality	15%
Project Schedule	10%
Technical Exceptions	15%
<b>Total</b>	<b>100%</b>

The scoring for an individual item in each of the bids was applied as defined below.

**Scoring Definitions**

100	Meets Specification as requested. Has understanding of the requirements.
5 point addition	Exceeds the specification and/or shows exceptional knowledge based on bidder experience.
10 point deduction	Minor scope deviations and/or meets minimal requirements.
20 point deduction	Significant scope deviations which will require levelizing costs.
0	Unacceptable. Does not meet minimum requirements.

**In the analysis of bids completed by Sargent & Lundy, Emerson received a technical score of 98.7 and Schneider Electric received a score of 88.1. Based on the technical evaluation performed, S&L and COA staff concluded that bids are deemed technically acceptable. Considering all of the information included with the bids, the responses to the bid questions and the scoring, Emerson's proposal is considered technically superior.**

**The Engineer's estimate of the cost for this phase of the project is \$1,161,000.** This cost will be covered from funding identified in the approved FY 2015/16 Capital Improvements Plan, which includes \$26,000,000 for the Unit 7 and Unit 8 fuel conversion.

To date, the overall project budget has the following items encumbered:

<b>\$26,000,000</b>	<b>FY 2015/16 CIP amount budgeted for project</b>
\$1,995,000	Encumbered not-to-exceed amount for Engineering Services
\$2,395,000	Engineering Services Contract Change Order No. 1
\$3,355,300	Contract cost for Natural Gas Conversion Equipment
\$29,869	Equipment Contract Change Order No. 1
(-\$321,600)	Equipment Contract Change Order No. 2
<b>\$1,595,000</b>	<b>Actual cost for DCS equipment (pending City Council approval of award for this agenda item)</b>
\$1,064,728	Estimated cost for TCS equipment (currently evaluating bids)
<b><u>\$10,113,297</u></b>	<b>Costs committed to date for conversion</b>
<b>\$15,886,703</b>	<b>Remaining Project Balance</b> to cover the installation of natural gas burners, natural gas piping into the power plant from the gas gate, DCS installation, Control/DCS room, and other miscellaneous equipment and modifications to the power plant needed for the fuel conversion

**ALTERNATIVES:**

1. Award a contract to Emerson Process Management Power & Water Solutions, Inc., Pittsburgh, PA, for the Distributed Control System in the amount of \$1,595,000.
2. Award a contract to one of the other bidders.
3. Reject all bids and direct staff to rebid.

**MANAGER'S RECOMMENDED ACTION:**

The Power Plant's existing Distributed Control System is over 14 years old, and is no longer supported by the manufacturer. An up-to-date control system is needed for the safe and efficient operation of the plant into the future. Funding to purchase and install this system is available from the original project budget.

Based on the Sargent & Lundy and staff analysis, it is the recommendation of the City Manager that the City Council approve Alternative #1, thereby awarding a contract to Emerson Process Management Power & Water Solutions, Inc., Pittsburgh, PA, for the Distributed Control System in the amount of \$1,595,000.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as stated above.