

**COUNCIL ACTION FORM**

**SUBJECT: POWER PLANT FUEL CONVERSION – BID NO. 2 – TURBINE STEAM SEAL SYSTEM – CHANGE ORDER NO. 2**

**BACKGROUND:**

In November of 2013 the City Council decided to convert the City's Power Plant from coal to natural gas. In May of 2014 the City Council selected Sargent & Lundy of Chicago, Illinois, to provide engineering and construction oversight services for the conversion project.

Presently the City of Ames has two open contracts with General Electric (GE) in regards to the power plant conversion project. It was necessary at that time to enter into two contracts because the City is working with two separate divisions within GE and using two distinct skill sets. One contract provides for a replacement of the Turbine Control system. The second contract provides for a Turbine Steam Seal system. On April 14, 2015, City Council awarded a contract to General Electric International, Inc., Omaha, NE, for the Bid No. 2 Turbine Steam Seal System for Unit 8 in the amount of \$186,320.

**The action being requested is to approve Change Order No. 2 to the Bid No. 2 Turbine Steam Seal System Contract. When the contract to provide the Turbine Control system was bid, sufficient technical support from GE was included in the bid in regards to the electronic/controls portion. However, both staff and the City's consulting engineer feel that additional technical support from GE is needed on the mechanical area to successfully carry out the project. The mechanical technical expertise to support the Turbine Control project will come from the division supplying the Steam Seal system. The Change Order to the second contract is being requested to supply support for the first contract in order to gain the correct skill set from GE.**

The first change order for this contract was for \$24,536 to General Electric International, Inc. to procure a steam seal relief valve. **The total cost of this Change Order No. 2 is \$150,000 and will be billed on a Time & Material basis.**

The engineer's cost estimate for procurement of the equipment covered by this contract was \$1,064,728. With this change order, the total costs for the Bid No. 2 Turbine Steam Seal System within the project will be increased to \$360,856.

Overall, the total project dollar amount committed to date (inclusive of this Change order No. 3) is \$16,941,238.87. The approved FY 2015/16 Capital Improvements Plan includes \$26,000,000 for the Unit 7 and Unit 8 fuel conversion. However, some of the funding of the conversion project is coming from the sale of Electric Revenue bonds.

Considering that the project is coming in much less than the budgeted amount, staff has chosen to reduce the size of the bonds issuance and has reflected the budgeted amount accordingly. The project budget to date is shown on page 3. It should be noted if there are future Change Orders that cause the budget to exceed the remaining balance, the bond request cannot/will not be adjusted. Staff at that time will look at cancelling or delaying lower priority projects to fund the change.

**ALTERNATIVES:**

1. Approve contract Change Order No. 2 with General Electric International, Inc., Omaha, NE, for the Bid No. 2 Turbine Steam Seal System for Unit 8 in the amount of \$150,000.
2. Reject contract Change Order No. 2.

**MANAGER'S RECOMMENDED ACTION:**

The Power Plant's existing turbine controls for Units 7 and 8 are 48 and 33 years old, respectively. Up-to-date turbine controls are needed to maintain, and to reliably and safely operate the Unit 7 and 8 turbine-generators over the long term.

**This change order is needed in order to bring the right mechanical skill set onto the project in order to make sure the Turbine Control upgrade is successful.**

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

## PROJECT BUDGET

The overall project budget and commitments to date are summarized below. To date, the project budget has the following items encumbered:

\$17,475,000	FY 2015/16 CIP amount budgeted for project \$26,000,000 <b>less reduced bonds issuance by \$8,525,000</b>
<u>Sargent &amp; Lundy, LLC</u>	
\$1,995,000	Encumbered not-to-exceed amount for Engineering Services
\$2,395,000	Engineering Services Contract Change Order No. 1
\$174,000	Engineering Services Contract Change Order No. 2
<u>Alstom Power Inc.</u>	
\$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
(-\$51,000)	Equipment Contract Change Order No. 3
<u>Emerson Process Management Power &amp; Water Solutions, Inc.</u>	
\$1,595,000	Contract cost for DCS equipment
\$39,377	DCS Contract Change Order No. 1
<u>GE Energy Control Solutions, Inc.</u>	
\$814,920	Contract cost for TCS equipment Bid 1
\$244,731	TCS Bid 1 Contract Change Order No. 1
<u>General Electric International, Inc.</u>	
\$186,320	Contract Cost for Turbine Steam Seal System - TCS Bid 2
\$24,536	TCS Bid 2 Contract Change Order No. 1
<b>\$150,000</b>	<b>TCS Bid 2 Contract Change Order No. 2</b>
<u>Henkel Construction Co.</u>	
\$898,800	Contract cost for Control Room Installation General Work Contract
\$66,782	Control Room Contract Change Order No. 1
<u>TEI Construction Services, Inc.</u>	
\$1,572,019	Contract cost for Mechanical Installation General Work Contract
\$8,750	Mechanical Contract Change Order No. 1
\$156,131	Mechanical Contract Change Order No. 2

\$187,984	Mechanical Contract Change Order No. 3
\$9,785.37	Mechanical Contract Change Order No. 4
	<u>FPD Power Development, LLC</u>
\$3,145,149	Contract cost for Electrical Installation General Work Contract
	<u>Graybar Electric</u>
\$98,560	Contract cost for UPS System
(-\$1,010)	UPS System Contract Change Order No. 1
	<u>Hertz Equipment Rental Corporation</u>
<u>\$166,835.50</u>	Contract cost for Portable Electric Space Heaters
<b>\$16,941,238.87</b>	<b>Costs committed to date for conversion</b>
<b>\$533,761.13</b>	<b>Remaining Project Balance</b> to cover miscellaneous equipment and modifications to the power plant needed for the fuel conversion