

**COUNCIL ACTION FORM**

**SUBJECT: POWER PLANT NATURAL GAS CONVERSION EQUIPMENT, INCLUDING BURNERS, SCANNERS, THERMAL ANALYSIS, AND COMPUTER MODELING – CHANGE ORDER NO. 7**

**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.

On November 5, 2014, City Council awarded a contract to Alstom Power Inc. of Windsor, CT for the Natural Gas Conversion Equipment Including Burners, Igniters, Scanners, Thermal Analysis and Computer Modeling in the amount of \$3,355,300. Since that time Alstom Power Inc. has been acquired by General Electric, and as a result the company has been renamed GE Power, Inc.

**The action being requested is to approve Change Order No. 7 totaling \$62,310 to this contract. That will allow GE Power, Inc. to provide equipment and labor necessary to install a grid sampling system for the tuning and performance testing of Unit 8.**

The scope of work includes providing and preparing the necessary equipment for testing, shipping of the equipment to (and from the site), round trip travel of the Performance Services testing technician(s), and labor time for setting up and operating the grid sampling equipment, removing the equipment, and preparing the data reduction report. **This work was not included in the original bid specification. However, both staff and the City's project engineer agree that the grid sampling system will provide for superior tuning. This will result in more efficient plant operation and reduced emissions.**

**CHANGE ORDER HISTORY:**

The following six change orders have previously been issued for this project:

**Change Order No. 1** for \$29,869.00 to increase funds to cover costs for GE Power to perform base line testing for Unit 8.

**Change Order No. 2** for a reduction of \$321,600 to 1) Add two flame scanner frequency signal analyzers on Unit #7; 2) reduce the number of natural gas burners (and associated burner equipment) from twelve to nine on Unit #8; and 3) add six frequency signal analyzers on Unit #8.

**Change Order No. 3** for a reduction of \$51,000 since staff felt modeling for Unit 7 was not necessary to assist with burner design and/or location.

**Change Order No. 4** in the amount of \$1,620 to supply one Flame Signal Analyzer.

**Change Order No. 5** for \$0 to clarify that the equipment purchased under this contract is considered personal tangible property.

**Change Order No. 6** in the amount of \$32,679 to provide equipment and labor necessary to install a grid sampling system for the tuning and performance testing of Unit 7 supply one Flame Signal Analyzer.

**The total cost of all previous change orders was a reduction of \$146,122.**

#### **PROJECT COST HISTORY:**

The Engineer's estimate of the cost for this phase of the project was \$4,500,000. With this change order, the total costs for the GE Power contract within the project will be increased to \$3,109,178.

Overall, the total project dollar amount committed to date (inclusive of this Change Order No. 7) is \$17,383,266.72. 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. 7 with GE Power Inc. of Windsor, CT for the Natural Gas Conversion Equipment Including Burners, Igniters, Scanners, Thermal Analysis and Computer Modeling in the amount of \$62,310.
2. Reject contract Change Order No. 7.

#### **MANAGER'S RECOMMENDED ACTION:**

This change order is needed to provide technical services to install a grid sampling system associated with the tuning and performance testing of Unit #8.

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 less reduced bonds issuance by \$8,525,000
	<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>GE 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
\$1,620	Equipment Contract Change Order No. 4
\$0	Equipment Contract Change Order No. 5
\$32,679	Equipment Contract Change Order No. 6
<b>\$62,310</b>	<b>Equipment Contract Change Order No. 7 (this Council Action Form)</b>
	<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
\$12,611	DCS Contract Change Order No. 2
\$0	DCS Contract Change Order No. 3
	<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
\$34,000	TCS Bid 1 Contract Change Order No. 2
\$0	TCS Bid 1 Contract Change Order No. 3
\$16,854	TCS Bid 1 Contract Change Order No. 4
	<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
\$150,000	TCS Bid 2 Contract Change Order No. 2
\$0	TCS Bid 2 Contract Change Order No. 3

	<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
\$17,683.54	Control Room Contract Change Order No. 2
	<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
\$3,032.17	Mechanical Contract Change Order No. 5
\$7,725.98	Mechanical Contract Change Order No. 6
\$3,032.16	Mechanical Contract Change Order No. 7
\$21,673.58	Mechanical Contract Change Order No. 8
\$175,496.89	Mechanical Contract Change Order No. 9
	<u>FPD Power Development, LLC</u>
\$3,145,149	Contract cost for Electrical Installation General Work Contract
\$12,044.24	Electrical Contract Change Order No. 1
\$41,265.65	Electrical Contract Change Order No. 2
	<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>\$17,383,266.72</b>	<b>Costs committed to date for conversion</b>
<b>\$91,733.28</b>	<b>Remaining Project Balance</b> to cover miscellaneous equipment and modifications to the power plant needed for the fuel conversion