

COUNCIL ACTION FORM

**SUBJECT: POWER PLANT FUEL CONVERSION – MECHANICAL INSTALLATION
GENERAL WORK CONTRACT – CHANGE ORDER NO. 11**

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 September 22, 2015, City Council awarded a contract to TEI Construction Services, Inc., Duncan, SC for the Mechanical Installation General Work Contract in the amount of \$1,572,019.

The action being requested is to approve Change Order No. 11 to the Mechanical Installation Contract.

This change order is needed in order to reimburse TEI Construction Services, Inc. (TEI) for sales taxes paid on materials they purchased to fulfill the obligations of their contract with the City. **Council should note that the intention was for TEI to have included sales taxes in their original bid. However, they did not due to unclear instructions regarding sales taxes in the City's Invitation to Bid.**

The cost of this change order is \$12,539.88.

ALTERNATIVES:

1. Approve contract Change Order No. 11 with TEI Construction Services, Inc., Duncan, SC for the Power Plant Fuel Conversion - Mechanical Installation General Work Contract in the amount of \$12,539.88.
2. Reject contract Change Order No. 11.

MANAGER'S RECOMMENDED ACTION:

This Change Order corrects the misunderstanding concerning the payment of sales tax.

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

CHANGE ORDER HISTORY:

Ten change orders have previously been issued for this project.

Change Order No. 1 for \$8,750 was for TEI to procure Nordstrom valves.

Change Order No. 2 for \$156,131 was for TEI to supply natural gas control and on-off valves.

Change Order No. 3 for \$187,984 was for TEI to provide and modify platforms, stairs, grating, toe plates, railings, etc. on four levels associated with the installation of natural gas burners and igniters on Unit 8 boiler and to provide Unit 7 & 8 Steam turbine front standard installation work including probe removal, worm gear removal, disconnecting linkages, and valve installation.

Change Order No. 4 for \$9,785.37 was for TEI to provide material, equipment, and labor necessary to fabricate and install structural steel angle frames onto the outside of the burner windboxes on three burner levels of Unit 8 boiler to facilitate the mounting of nine burners.

Change Order No. 5 for \$3,032.17 was for TEI to remove & reinstall operating cylinder pump at the direction of the GE representative.

Change Order No. 6 for \$7,725.98 was for TEI to provide the necessary material, equipment, and labor to remove the existing burner support rings and replace them with rings at Elevation 127'-3" on Unit 8 boiler.

Change Order No. 7 for \$3,032.16 was for TEI to provide equipment and labor to remove, inspect, adjust, and reinstall the pilot valve on Unit 8 turbine.

Change Order No. 8 for \$21,673.58 was for TEI to cut the piping and weld flanges in each of the nine (9) natural gas igniter valve assemblies to facilitate the maintenance and removal (if necessary) of the gas control valves, plus install fittings along with shutoff valves to be able to isolate pressure gauges for maintenance and removal without having to shut down the system to perform the work.

Change Order No. 9 for \$175,496.89 was for TEI to supply and install the refractory that is required around the nine (9) new natural gas burners for Unit 8.

Change Order No. 10 for \$48,486.22 was for TEI to: 1) provide and set-up a stud welder for welding refractory horns onto the Unit 8 burner locations; 2) deduct the net price remaining in the base bid that had been allocated for the installation of refractory around the burners of Unit 8 boiler; 3) provide the necessary material, labor, and equipment to supply and weld install twelve new 3" to 2" reducers to accommodate the new 2" valves on the Ignitor Air System; 4) drill holes and align (shim) the linear actuators on the damper tube assemblies as requested by Alstom;

5) provide material, labor, and equipment necessary to modify the structural steel columns supporting the weather shelter (canopy) over the Power Plant's natural gas gate station; 6) provide labor to install additional horns around Unit 8's natural gas burners to securely hold in place the refractory necessary to shape the natural gas flames emanating from each burner; 7) provide material, labor, and equipment necessary to provide and install specialized equipment to support the piping and equipment of the new steam sealing system for Unit 8 turbine-generator; and 8) to be reimbursed for remobilization of labor and rental of equipment due to the delay in the completion of the gas conversion of Unit 8 requiring Unit 7 to stay online, which prevented TEI from being able to transition and work on Unit 7 after completing their work on Unit 8.

The total cost of previous ten change orders was \$622,097.37. With Change Order No. 11, the new change order total is \$634,637.25.

It should be remembered that the Engineer's estimate of the cost for this phase of the project was \$5,115,000. With this change order, the total costs for the Mechanical Installation General Work Contract within the project will be increased to \$2,206,656.25.

Overall, the total project dollar amount committed to date (inclusive of this Change Order No. 11) is \$17,773,155.14. The approved FY 2015/16 Capital Improvements Plan includes \$26,000,000 for the Unit 7 and Unit 8 fuel conversion. This was subsequently adjusted to \$18,112,011. The complete project budget to date is shown on page 4.

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 based on a new project estimate
\$637,011	Unspent Funds from the Power Plant Cooling Tower CIP
\$18,112,011	
	<u>Sargent & 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
\$154,000	Engineering Services Contract Change Order No. 3

GE Power Inc.

\$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
\$62,310	Equipment Contract Change Order No. 7

Emerson Process Management Power & Water Solutions, Inc.

\$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

GE Energy Control Solutions, Inc.

\$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
\$41,760	TCS Bid 1 Contract Change Order No. 5

General Electric International, Inc.

\$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
\$9,208.42	TCS Bid 2 Contract Change Order No. 4

Henkel Construction Co.

\$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

TEI Construction Services, Inc.

\$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
\$48,486.22	Mechanical Contract Change Order No. 10
\$12,539.88	Mechanical Contract Change Order No. 11

FPD Power Development, LLC

\$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
\$123,893.90	Electrical Contract Change Order No. 3

Graybar Electric

\$98,560	Contract cost for UPS System
(-\$1,010)	UPS System Contract Change Order No. 1

Hertz Equipment Rental Corporation

<u>\$166,835.50</u>	Contract cost for Portable Electric Space Heaters
\$17,773,155.14	Costs committed to date for conversion
\$338,855.86	Remaining Project Balance to cover miscellaneous equipment and modifications to the power plant needed for the fuel conversion