



City of Grand Island

Tuesday, December 04, 2007

Council Session

Item G3

#2007-309 - Approving Change Order #1 - NAES Turbine Services - Turbine Generator Inspection & Repair - Platte Generating Station

Staff Contact: Gary R. Mader; Wesley Nespor

Council Agenda Memo

From: Gary R. Mader, Utilities Director

Meeting: December 4, 2007

Subject: NAES Turbine Services - Turbine Generator Inspection and Repair Contract - Change Order #1

Item #'s: G-3

Presenter(s): Gary R. Mader, Utilities Director

Background

Prior to the major overhaul and maintenance outage at Platte Generating Station this fall, plant staff developed an extensive specification and received bids for major repairs and technical inspection to be done on the turbine generator. The repair specifications were based on known problems found from visual inspections, instrument tests, and the Turbine Generator's operating history. The specifications also included additional testing and inspections to be done during the overhaul. The components to be tested during the outage included; bearings, steam nozzles, turbine rotor blades, and generator parts that cannot be accessed until the unit is off-line to allow access. NAES Turbine Services was awarded the contract for the turbine generator inspection and repair on May 22, 2007, in the amount of \$443,072.00.

Discussion

The testing and inspection of the turbine generator after unit shut down found a number of problems not known at the time the original repair specifications were developed. It was expected that disassembly and inspection of the turbine generator would reveal wear not specifically known when the overhaul began. The level of additional work at this outage is not unusual and is comparable to previous major overhauls. Additional repair included:

- Erosion damage repair on turbine stages 10 and 11 stationary nozzles and stage 10 turbine wheel. (\$25,950)
- Turbine Stage 10 seal strip erosion repair. (\$2,800)
- Turbine #3 bearing oil deflector was worn beyond factory specifications for fit. (\$1,500)

- The original project scope specification stated a 30 day duration. That duration was extended due to the need to make repairs to the main turbine inlet valves. (\$29,488)
- Early in the outage, the generator was found to have loose stator wedging. Bids were taken, and the contract for repair was awarded at the Council meeting of October 23, 2007. This repair work requires electrical testing be done after completion, to assure proper function of the generator. The test is the Electromagnetic Core Imperfection Detection (EL CID). That test was done by the generator repair contractor. It was also included in this general inspection contract as a matter of routine testing during a major maintenance outage. The EL CID test is deleted from this contract. (Credit of \$3,000)

The total net amount of the required additional work is \$56,738.00 for a final contract amount of \$499,810.00.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

Recommendation

City Administration recommends authorizing Change Order #1 to the Turbine Generator Inspection and Repair Contract at the Platte Generating Station for an addition to the contract price of \$56,738.00.

Sample Motion

Move to approve Change Order #1 in the amount of \$56,738.00 to the Turbine Generator Inspection and Repair Contract with NAES Turbine Services.



*Working Together for a
Better Tomorrow. Today.*

Change Order #1

TO: NAES Turbine Services
P.O. Box 94274
Seattle WA 98124-6574

PROJECT: Turbine Generator Inspection and Repair Contract Change Order - Platte Generating Station

You are hereby directed to make the following change in your contract:

1 Additional payment per the attached spreadsheet.

ADD: \$56,738.00

The original Contract Sum	<u> \$443,072.00</u>
Previous Change Order Amounts	<u> \$ -</u>
The Contract Sum is increased by this Change Order	<u> \$ 56,738.00</u>
The Contract Sum is decreased by this Change Order	<u> \$ </u>
The total modified Contract Sum to date	<u> \$ 499,810.00</u>

Approval and acceptance of this Change Order acknowledges understanding and agreement that the cost and time adjustments included represent the complete values arising out of and/or incidental to the work described therein.

APPROVED: CITY OF GRAND ISLAND

By: _____

Date _____

Attest: _____

Approved as to Form, City Attorney

ACCEPTED: NAES Turbine Services

By: _____

Date _____

RESOLUTION 2007-309

WHEREAS, on May 22, 2007, by Resolution 2007-115, the City of Grand Island awarded the bid for Turbine Generator Inspection and Repair to NAES Turbine Services, of Seattle, Washington; and

WHEREAS, it has been determined that modifications to the work to be performed by NAES Turbine Services, are necessary; and

WHEREAS, such modifications have been incorporated into Change Order No. 1; and

WHEREAS, the result of such modification will increase the contract amount by \$56,738.00 for a revised contract price of \$499,810.00.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the Mayor be, and hereby is, authorized and directed to execute Change Order No. 1 between the City of Grand Island and NAES Turbine Services, of Seattle, Washington to provide the modification set out as follows:

Erosion Damage Repair on Turbine Stages 10 and 11 Stationary Nozzles and Stage 10 Turbine Wheel.....	\$25,950.00
Turbine Stage 10 Seal Strip Erosion Repair	2,800.00
Turbine #3 Bearing Oil Deflector Repair	1,500.00
Extension of Scope of Project to include needed Repairs to the Main Turbine Inlet Valves.....	29,488.00
Deletion of El CID Test	<u>-3,000.00</u>
Total	\$56,738.00

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Adopted by the City Council of the City of Grand Island, Nebraska, December 4, 2007.

Margaret Hornady, Mayor

Attest:

RaNae Edwards, City Clerk

Approved as to Form ☐ _____
November 30, 2007 ☐ City Attorney