



# City of Grand Island

Tuesday, November 14, 2006

Council Session

## Item G5

**#2006-329 - Approving Bid Award for Feedwater Heater Tube Bundle - Platte Generating Station**

Staff Contact: Gary R. Mader

# Council Agenda Memo

**From:** Gary R. Mader, Utilities Director  
Dale Shotkoski, Interim City Attorney

**Meeting:** November 14, 2006

**Subject:** Feedwater Heater Tube Bundle

**Item #'s:** G-5

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

## Background

The Platte Generating Station utilizes five stages of boiler feedwater heaters in its steam cycle. These feedwater heaters are specialized heat exchangers that use steam from the main turbine-generator to preheat the boiler feedwater and improve the overall plant steam cycle efficiency. One of the feedwater heaters has internal leakage problems which makes control of its operation difficult and wall thinning of the feedwater heater tubes is occurring. The present heater tube bundle is the originally installed equipment. The tube bundle weighs approximately 18 tons and includes about 24,000 feet of tubing.

The Utilities Department solicited bids and awarded engineering evaluation services to a consulting engineer, Sargent & Lundy, to evaluate corrective options. The options evaluated were re-tubing the heater, replacing the heater, or taking the heater permanently out of service. Based on equipment costs, efficiency evaluations, and field labor costs, the recommended option was to replace the feedwater heater tube bundle. This preferred option also included upgrading the original copper-nickel alloy tubes to stainless steel. The increased operating cost of permanently removing this feedwater heater from service is approximately \$200,000 per year. Based on this analysis, replacement feedwater heater tube bundle specifications were prepared. The specifications were advertised, issued for bid, and publicly opened in accordance with City Procurement Procedures.

## Discussion

The specifications for the Feedwater Heater Tube Bundle were issued for bid and responses were received from the following bidders. The engineer's estimate for this project was \$225,000.00.

<u>Bidder</u>	<u>Bid Price</u>
American Exchanger Services, Inc., Hartford, WI	\$298,500.00
Thermal Engineering International, Santa Fe Springs, CA	\$445,400.00
Yuba Heat Transfer LLC, Tulsa, OK	\$313,214.00

Only one bid, from American Exchanger Services, Inc., complied with the equipment delivery date specified, August 31, 2007. The two other bids proposed deliveries of November, 2007. The replacement of this equipment is planned for the scheduled Platte Generating Station maintenance and inspection outage in October, 2007.

The bid specifications requested optional pricing for the replacement feedwater heater shell; in addition to the replacement feedwater heater tube bundle. This option was requested in order to simplify outage construction activities and to protect and preserve the equipment during shipping and storage prior to installation. The cost for this option is \$11,615.00, for a total cost of \$310,115.00.

The bid submitted by American Exchanger Services, Inc., exceeds the engineer's estimate by a considerable amount. This is due to several factors further discussed below.

1. Material costs have risen considerably in recent months. This is further reflected in the pricing terms proposed by American Exchanger Services, Inc., which includes adjustment of the price based on stainless steel tubing surcharge values. The power industry has encountered increases in stainless steel materials in excess of 30% in the last three to six months. Increases in demand have further increased manufacturing labor costs.
2. Demand for power plant equipment has risen considerably in 2006. This has a two-fold affect, one on price and the other on shop load. American Exchanger Services, Inc., has indicated that new feedwater heater orders are being quoted with lead times of 14-16 months. Their offer on this feedwater heater is shorter, and is likely one of the last orders they will take at less than 14-16 months. The other two bids are more representative of the new lead time. American Exchanger Services, Inc., has also indicated that they have some overtime costs included in their price due to the increasing shop load; and indicated that these overtime costs would become typical of new orders.
3. American Exchanger Services, Inc. has indicated that due to the requested equipment delivery date, their tubing supplier choices were limited. They advised that this impact their bid by approximately \$10,000-\$15,000. It is the Department's opinion that this cost could not be recouped by re-bidding the equipment with a later delivery date.
4. This feedwater heater is a 30 year old design (vertical, channel up) and not typical of new orders (horizontal). This drives up cost since the design for this one heater uses engineering resources that could otherwise be used on an increasing volume of more typical horizontal heaters, and typically for orders of more than one heater.

## **Alternatives**

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

1. Move to approve the award of the Feedwater Heater Tube Bundle
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 that the Council award the bid for Feedwater Heater Tube Bundle to American Exchanger Services, Inc., from Hartford, Wisconsin as the low responsive bidder, with the bid price of \$298,500.00, plus acceptance of the option of providing a replacement feedwater heater shell for \$11,615.00

## **Sample Motion**

Motion to award the bid for Feedwater Heater Tube Bundle, with new heater shell, in the amount of \$310,115.00 to American Exchanger Services, Inc.



Dale M. Shotkoski, Assistant City Attorney

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**BID OPENING**

**BID OPENING DATE:** October 24, 2006 at 11:00 a.m.  
**FOR:** Feedwater Heater Tube Bundle  
**DEPARTMENT:** Utilities  
**ESTIMATE:** \$225,000.00  
**FUND/ACCOUNT:** 520  
**PUBLICATION DATE:** September 27, 2006  
**NO. POTENTIAL BIDDERS:** 5

**SUMMARY**

<b>Bidder:</b>	<u>American Exchanger Services, Inc.</u> Hartford, WI	<u>Thermal Engineering International</u> Santa Fe Springs, CA
<b>Bid Security:</b>	\$16,000.00	Westchester Fire Insurance Co.
<b>Exceptions:</b>	Noted	Noted
<b>Bid Price:</b>	\$298,500.00	\$445,400.00

<b>Bidder:</b>	<u>Yuba Heat Transfer LLC</u> Tulsa, OK
<b>Bid Security:</b>	Westchester Fire Insurance Co.
<b>Exceptions:</b>	Noted
<b>Bid Price:</b>	\$313,214.00

cc: Gary Mader, Utilities Director  
Karen Nagel, Utilities Secretary  
Gary Greer, City Administrator  
Sherry Peters, Legal Secretary

Bob Smith, Assist. Utilities Director  
Pat Gericke, Utilities Admin. Assist.  
Dale Shotkoski, Purchasing Agent

RESOLUTION 2006-329

WHEREAS, the City of Grand Island invited sealed bids for a Feedwater Heater Tube Bundle for the Utilities Department, according to specifications on file with the Utilities Department; and

WHEREAS, on October 24, 2006, three bids were received, opened and reviewed; and

WHEREAS, the bid from American Exchanger Services, Inc., from Hartford, Wisconsin, was the lowest bid received, and the only bid submitted to comply with the specified delivery date of August 31, 2007, and such bid was in accordance with the terms of the advertisement of bids and specifications and all other statutory requirements contained therein, such bid being in the amount of \$310,115.00; and

WHEREAS, such bid exceeds the estimate for such Feedwater Heater Tube Bundle, however, due to increasing material costs and increasing demand for power plant equipment since the engineer's estimate was prepared, the bid of American Exchanger Services, Inc., is fair and reasonable.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the bid of American Exchanger Services, Inc. of Hartford, Wisconsin, in the amount of \$310,115.00 for a Feedwater Heater Tube Bundle is hereby approved.

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Adopted by the City Council of the City of Grand Island, Nebraska, November 14, 2006.

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Jay Vavricek, Mayor

Attest:

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RaNae Edwards, City Clerk

Approved as to Form	☐ _____
November 8, 2006	☐ City Attorney