RESOLUTION NO. 6374

WHEREAS, sealed bids were requested and advertised, as required by law, for the following:

REQUEST FOR PROPOSAL (RFP) NO. 5724
NEBRASKA CITY STATION UNIT 2 REHEATER UPPER BANK MATERIALS

WHEREAS, bids were received and opened at the time and place mentioned in the published notices and the Director – Supply Chain Management supervised the tabulations, which have been submitted to this Board; and

WHEREAS, the Board of Directors has carefully considered the bids submitted, as well as the recommendations of the District’s Management and General Counsel.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Omaha Public Power District that Management hereby is authorized and directed to accept the proposal of Chanute Manufacturing to design and supply the material for the partial upper bank replacement of the reheater tube assemblies of the Nebraska City Unit 2 boiler, and the bond of such bidder hereby is approved.
Board Action

BOARD OF DIRECTORS

May 12, 2020

ITEM

Nebraska City Unit 2 Reheater Upper Bank Tube Assembly Materials

PURPOSE

Supply material for the partial upper bank replacement of the reheater tube assemblies for the Nebraska City Unit 2 boiler.

FACTS

a. The upper bank of the reheater tubing of the Nebraska City Unit 2 boiler has been evaluated and selected assemblies should be replaced to maintain unit reliability.

b. The District requested bids for the design, supply and fabrication of the replacement tubing materials. Seven bids were received, with one supplier providing two options. Four bids were determined to be legally non-responsive.

c. The reheater tube assemblies are long lead delivery items. A contract for installation of these tube assemblies will be awarded separately; the installation will occur in the spring of 2021 during a scheduled unit outage.

ACTION

Authorization by the Board of Directors to award a contract to Chanute Manufacturing for the material and fabrication of tubing assemblies, including tube shields and tubing hardware, for a partial replacement of the upper bank of the Nebraska City Station Unit 2 boiler reheater.

RECOMMENDED: /s/ Mary J. Fisher
Mary J. Fisher
Vice President – Energy Production and Nuclear Decommissioning

APPROVED FOR BOARD CONSIDERATION: /s/ Timothy J. Burke
Timothy J. Burke
President and CEO

SAE:mb

Attachments: Letter of Recommendation
Tabulation of Bids
Legal Opinion
Resolution
1.00 GENERAL

Request for Proposal (RFP) No. 5724 is for the material design and procurement contract to replace selected reheater upper bank tubing assemblies of the Nebraska City Unit 2 (NC2) boiler. This contract covers the design and supply of materials only and does not include installation. An installation contract will be awarded later in 2020. There is a scheduled unit outage to install this material starting in February 2021.

The NC2 reheater is original equipment supplied by IHI Corporation with commercial operation starting in 2009. The reheater upper bank tubing assemblies were evaluated and should be replaced to maintain unit reliability.

Seven proposals were submitted and opened in response to the RFP on April 14, 2020, Chicago Tube & Iron provided a second bid option, and are tabulated as follows:

<table>
<thead>
<tr>
<th>Bidders</th>
<th>Base Bid Price</th>
<th>Total Price</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babcock &amp; Wilcox</td>
<td>$576,597</td>
<td>$599,601</td>
<td>Mexico fabrication using materials from China, Germany, or USA</td>
</tr>
<tr>
<td>GE Steam Power, Inc.</td>
<td>$584,500</td>
<td>$601,000</td>
<td>Chinese fabrication using materials from South Korea, Europe, or China</td>
</tr>
<tr>
<td>Riley Power</td>
<td>$578,106</td>
<td>$609,612</td>
<td>Chinese fabrication using materials from China</td>
</tr>
<tr>
<td>Boiler Tube Company of America</td>
<td>$593,200</td>
<td>$653,200</td>
<td>South Carolina (USA) fabrication using materials from China</td>
</tr>
<tr>
<td>Chanute Manufacturing</td>
<td>$637,810</td>
<td>$686,535</td>
<td>Kansas (USA) fabrication using materials from Germany, Spain, or Romania</td>
</tr>
<tr>
<td>Chicago Tube &amp; Iron – Option 1A</td>
<td>$725,827</td>
<td>$766,744</td>
<td>North Carolina (USA) fabrication using materials from Germany</td>
</tr>
</tbody>
</table>
Optional pricing was requested for a selected area of the reheater assemblies to address coal ash corrosion issues. This area was chosen for additional protection due to their close proximity to the rear wall screen tubes and the potential for high temperature corrosion due to flue gas imbalance. Several options (laser cladding, weld overlay, etc) were submitted but the tube shield option was selected in lieu of the corrosion resistant coating option primarily due to cost. In addition, it is more cost effective to install the corrosion protection during tubing fabrication activities rather than during planned or forced unit outages. The Total Price above includes a tube shield provision as outlined in the proposals.

The existing reheater tubes have a single ladder strap which are designed to maintain proper alignment of the tubing assemblies. A second ladder strap was requested for the new reheater tubing assemblies to assist in maintaining proper alignment to prevent movement of the tubes into the sootblower lanes, potentially leading to damage. The Total Price for Riley Power and Boiler Tube of America bids include a second ladder strap to the tubing assemblies for the amounts $7,000 and $20,000, respectively, and is included in the total price shown in the above table. The Chanute Manufacturing base bid includes a second ladder strap to the tubing assemblies.

Riley Power and GE Steam Power bids would be increased to $678,249 and $681,700, respectively, for the inclusion of tariffs upon material delivery.

Chanute Manufacturing bid would be increased to $694,510 for the inclusion of a performance and payment bond.

The Engineer's Estimate at the time of bid opening was $700,000.

2.00 COMPLIANCE WITH CONTRACT TERMS AND CONDITIONS

The proposals were reviewed by the District’s legal counsel for review. The proposals from Babcock & Wilcox, IHI and Chicago Tube & Iron determined to be legally non-responsive.

3.00 COMPLIANCE WITH TECHNICAL REQUIREMENTS

The proposals were reviewed and determined to be technical responsive. The Riley Power and the GE Steam Power bids, with all materials procured overseas and fabrication being performed in China, was evaluated to be lesser value to the District due to the additional costs needed to provide adequate quality assurance and the risk of overseas production and shipping associated with those bids. The Boiler Tube of America bid, with tubing materials assumed to be procured from an overseas mill, was evaluated to be lesser value to the District due to overseas production and performance risks.
4.00 RECOMMENDATION

Based on compliance with legal and technical requirements of this specification, it is recommended that Request for Proposal No. 5724 be awarded to Chanute for $686,535.

Scott A. Eidem
S.A. Eidem, P.E.
Director, Engineering Services
Energy Production & Nuclear Decommissioning
## TABULATION OF BIDS
Opened at 2:00 p.m., C.D.T., Tuesday, April 14, 2020, in Omaha, Nebraska

<table>
<thead>
<tr>
<th>BID ITEM</th>
<th>SUPPLIER'S BID</th>
<th>SUPPLIER'S BID</th>
<th>SUPPLIER'S BID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1-Base Bid Lump Sum Firm Price</td>
<td>$576,597.00</td>
<td>$578,106.00</td>
<td>$584,500.00</td>
</tr>
<tr>
<td>Item 2-Corrosion Protection Optional Provision</td>
<td>$136,499.00</td>
<td>$180,160.00</td>
<td>*$212,800.00</td>
</tr>
<tr>
<td>Item 3-Tube Shield Optional Provision</td>
<td>$23,004.00</td>
<td>$24,506.00</td>
<td>$16,500.00</td>
</tr>
<tr>
<td>Item 4-T-22 Material Substitute Deduct</td>
<td>$18,525.00</td>
<td>$22,925.00</td>
<td>$</td>
</tr>
</tbody>
</table>

## ENGINEER'S ESTIMATE

| $ 700,000.00 |

## REQUEST FOR PROPOSAL NO. 5724
Nebraska City Station Unit 2 Reheater Upper Bank Materials

### 1. Proposal Price(S)

Indicated area of the RFP

* Information included in the proposal, but not read at the bid opening for not being listed in the indicated area of the RFP

### 2. Delivery Guarantee(s)

Desired Delivery Date:  January 20, 2021

*January 20, 2021
## TABULATION OF BIDS
Opened at 2:00 p.m., C.D.T., Tuesday, April 14, 2020, in Omaha, Nebraska

### Anticipated Award Date
May 14, 2020

### ENGINEER'S ESTIMATE

<table>
<thead>
<tr>
<th>BID ITEM</th>
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<th>SUPPLIER'S BID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Proposal Price(S)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1-Base Bid Lump Sum Firm Price</td>
<td>$593,200.00</td>
<td>$637,810.00</td>
<td>$734,000.00</td>
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<tr>
<td>Item 2-Corrosion Protection Optional Provision</td>
<td>$145,000.00</td>
<td>$152,480.00</td>
<td>$258,000.00</td>
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<tr>
<td>Item 3-Tube Shield Optional Provision</td>
<td>$40,000.00</td>
<td>$48,725.00</td>
<td>$160,600.00</td>
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<tr>
<td>Item 4-T-22 Material Substitute Deduct</td>
<td>$0.00</td>
<td>N/A</td>
<td>$24,800.00</td>
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<td>2. Delivery Guarantee(s)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Desired Delivery Date: January 20, 2021</td>
<td>34-36 weeks ARO</td>
<td>January 20, 2021</td>
<td>January 20, 2021</td>
</tr>
</tbody>
</table>

* Proposal received and opened at bid opening, but not publicly read as it was embedded in another Bidder's proposal.

Page 2/3
# REQUEST FOR PROPOSAL NO. 5724

Nebraska City Station Unit 2 Reheater Upper Bank Materials

<table>
<thead>
<tr>
<th>BID ITEM</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Proposal Price(S)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1-Base Bid Lump Sum Firm Price</td>
<td>$925,252.00</td>
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<tr>
<td>Item 2-Corrosion Protection Optional Provision</td>
<td>$226,602.00</td>
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<td></td>
</tr>
<tr>
<td>Item 3-Tube Shield Optional Provision</td>
<td>$40,917.00</td>
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<td></td>
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<tr>
<td>Item 4-T-22 Material Substitute Deduct</td>
<td>$7,285.00</td>
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<tr>
<td>2. Delivery Guarantee(s)</td>
<td>Guaranteed Delivery Date</td>
<td>Guaranteed Delivery Date</td>
<td>Guaranteed Delivery Date</td>
</tr>
<tr>
<td>Desired Delivery Date:</td>
<td>January 20, 2021</td>
<td>January 20, 2021</td>
<td></td>
</tr>
</tbody>
</table>

**TABULATION OF BIDS**
Opened at 2:00 p.m., C.D.T., Tuesday, April 14, 2020, in Omaha, Nebraska

**Anticipated Award Date**
May 14, 2020

**ENGINEER'S ESTIMATE**
$700,000.00

**BIDDER'S NAME & ADDRESS**
Chicago Tube & Iron
One Chicago Tube Dr
Romeoville, IL 60446

**Director**
Supply Chain Management

Compiled by and Certified Correct
May 6, 2020

Omaha Public Power District
444 South 16th Street
Omaha, NE 68102

RE: Request for Proposal No. 5724 -- Nebraska City Station Unit 2 Reheater Upper
Bank Materials ("RFP No. 5724")

Ladies and Gentlemen:

We have reviewed the seven (7) proposals received in response to RFP No. 5724 and
provide the following opinion.

The proposal of IHI Inc. incorporates exceptions to the Terms and Conditions included in
RFP No. 5724 which would materially increase the commercial and legal risks to be accepted by
the District. As a result, we believe this bidder's proposal is legally non-responsive and should
not receive further consideration from the District.

The proposal of GE Steam Power, Inc. ("GE") includes commercial and technical
exceptions that should be evaluated by the District.

The proposal of Chicago Tube and Iron includes an exception that, "Progress Payments
to be negotiated at time of award and Final Payment". Such exception is not allowed under
applicable sealed bidding statutes. As a result, we believe this bidder's proposal is legally non-
responsive and should not receive further consideration from the District.

The proposal of Chanute Manufacturing includes commercial and technical exceptions
that should be evaluated by the District.

The proposal of Babcock & Wilcox Company ("B&W") states that its proposal is subject
to amendment in the event that it receives additional sales between bid submittal and award of a
Contract. Such exception is not allowed under applicable sealed bidding statutes. As a result,
we believe this bidder's proposal is legally non-responsive and should not receive further
consideration from the District.

The proposal of Riley Power Inc. includes commercial and technical exceptions that
should be evaluated by the District.
The proposal of Boiler Tube of America includes commercial and technical exceptions that should be evaluated by the District.

Subject to the foregoing comments and the District's technical and economic evaluation, four (4) of the seven (7) proposals received in response to RFP No. 5724 may be considered by the District's Board of Directors for the award of this contract. The bond of the successful bidder must be approved by the Board of Directors.

Very truly yours,

Troy F. Meyerson
FOR THE FIRM
Nebraska City 2 Reheater Upper Bank Replacement

Mary Fisher
Vice President – Energy Production & Nuclear Decommissioning
May 12, 2020
NC2 REHEATER TUBE FAILURE
TOP OF UPPER BANK
IHI - EXISTING

CHANUTE - PROPOSED

Ladder Strap

UPPER TUBING CUT LINES

ADDITIONAL TUBE SHIELDS

Ladder Straps

LOWER TUBING CUT LINES
Tube assemblies

Ladder Straps

Tubing cut locations (representative)

Picture is of the 2008 complete reheater replacement project for Nebraska City Unit 1 and is provided to illustrate subject project scope.

Unit 2 will be a partial replacement of similar reheater tube assemblies.
Ladder Straps (representative)