



City of Grand Island

Tuesday, January 22, 2013

Council Session

Item G9

#2013-23 - Approving Mercury and Air Toxic Standards Retrofit Project Contract with AMEC

Staff Contact: Tim Luchsinger, Robert Sivick

Council Agenda Memo

From: Timothy Luchsinger, Utilities Director
Robert Sivick, City Attorney

Meeting: January 22, 2013

Subject: Approving the Mercury and Air Toxic Standards Retrofit Project Contract with AMEC

Item #'s: G-9

Presenter(s): Timothy Luchsinger, Utilities Director

Background

On December 21, 2011, EPA released the Mercury and Air Toxics Standards (MATS), requiring the maximum achievable control technology for mercury and other hazardous pollutants from electric generating units, with a compliance date of March, 2015, although an additional one year for compliance may be granted by individual states.

To achieve long-term compliance for MATS, it was anticipated that the Department would need to install a fabric filter, carbon injection system, and, depending on the amount of reduction needed, either a dry sorbent injection or a dry scrubber at Platte Generating Station, along with associated by-product removal systems and disposal sites, in the next three to four years. It was estimated that these modifications would cost the utility approximately \$35 million and take 3 to 5 years for financing, design, and construction. Although this equipment will also result in additional operating costs that may affect rates, the City proceeded with refinancing of current electric bonds to reduce rate impacts due to debt service of capital expenditures. Current plans are to complete this installation during the last quarter of 2014 to coincide with a scheduled plant maintenance outage, with system startup and testing to continue into the first quarter of 2015. This will provide a margin for the implementation of the system and minimize plant downtime.

For large capital improvement projects of this type, the Department has traditionally used the Design-Build approach with multiple contracts, where proposals are solicited for a consulting engineer, who then proceeds with detailed design and developing specifications for bids to acquire equipment and contractors to complete the project. This type of approach can achieve more control of the details of the project, but can also take more time to complete and final project costs are not known until the final contract is awarded. A project approach being used more by utilities for capital projects is the Engineer-Procure-Construct (EPC) method. Specifications are developed emphasizing final system performance and operating parameters instead of technical features, and

consortiums of engineers, suppliers, and construction contractors then team together to provide bids for a total system package. The project is awarded to the lowest compliant bid, normally with provisions of penalties for not meeting guarantees or incentives for exceeding requirements. The EPC approach is recommended by the Department for the air emission control equipment project as we do not have a preference for the various air emission control technologies, and this method will allow for the market to determine the most cost effective and timely implementation. Project costs will also be known early and enable financing methods to be determined to minimize rate impacts to customers.

Utilities and other entities performing EPC projects normally retain the services of an Owner's Engineer to develop the EPC specifications and provide third party project administrative functions. On March 26, 2012, Kiewit Power Engineers was awarded the contract for providing engineering services for this project. The services for the Owner's Engineer included the following.

- A high level determination of emission reduction limits and system components.
- Preparation of specifications for bids.
- Evaluation of bids.
- Financial analysis and preparation of pro-formas for bond underwriters.
- Assistance in air emission permitting with EPA and NDEQ.
- Final system testing and determination of compliance with contract conditions.

In June, 2012, Kiewit completed a technical and economic evaluation of the two most recognized processes suitable for use at Platte to achieve the MATS requirements, dry sorbent injection (DSI) and a dry scrubber system. DSI processes are relatively new to the electric utility industry and can provide a low capital cost solution to applications requiring lower emission reduction rates. Dry scrubber systems are the current industry standard for power plants to meet sulfur dioxide emission standards and have been in use for over 20 years. Based on estimated capital and 20-year operating and maintenance costs, the processes were evaluated to have similar life cycle costs. With a similar life cycle cost, however, the potential for meeting future potential emission standards and the established history of dry scrubber systems resulted in a recommendation of a dry scrubber system for Platte. Department staff concurred with this recommendation and directed Kiewit to proceed with detailed specifications to be issued for bid.

In order to provide a cost-effective solution to meet the MATS requirements, the specifications were drafted on a performance basis. A performance basis specification identifies the current conditions and the required end result, but not the specific method, which allows the various emission control industry engineers, suppliers, and contractors latitude to bid their best solution for our application. Included in the specification was a spreadsheet that would be used to evaluate the low bidder that included the factors used in the calculation of project capital financing and annual operating and maintenance costs for use by the vendors in determining their best solution for the lowest overall project cost. These specifications were issued for bid in accordance with City purchasing procedures. On November 2, 2012, the following bids for the MATS Retrofit compliance were received.

Bidder	Bid Amount	20-Year Life Cycle Evaluated Bid Amount
AMEC, Tucker, GA	\$ 41,189,331	\$ 100,146,273
Hayes Mechanical, Chicago, IL	\$ 39,970,000	\$ 104,533,161
Black & Veatch, Overland Park, KS	\$ 52,393,500	\$ 107,391,553
KBR, Birmingham, AL	\$ 45,779,843	\$ 107,873,867
Burns & McDonnell, Kansas City, MO	\$ 48,919,000	\$ 109,252,188
Babcock & Wilcox, Barberton, OH	\$ 57,124,037	\$ 110,851,160
Zachary Industrial, Inc. San Antonio, TX	\$ 58,495,815	\$ 115,855,244
Babcock Power Inc., Worchester, MA	\$ 65,280,488	\$ 123,077,751

Kiewit completed the evaluation using life cycle cost spreadsheet included in the specifications and those costs are included above.

On January 8, 2013, Council approved the award of the MATS Compliance Retrofit Project to AMEC, with the intent of subsequent consideration of the approval of the execution of the final contract documents.

Discussion

Utilities and Legal staff have discussed the terms of the MATS Compliance Retrofit Project with AMEC staff and agreed upon the final contract language. The final document contains over 1600 pages and is available for review through the Utilities Department administrative offices.

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 that the Council authorize execution of the MATS Compliance Retrofit Project contract with AMEC.

Sample Motion

Move to authorize execution of the MATS Compliance Retrofit Project contract with AMEC.



Jason Eley, Purchasing Agent

*Working Together for a
Better Tomorrow, Today*

BID OPENING

BID OPENING DATE: November 2, 2012 at 2:00 p.m.

FOR: Platte Generating Station Unit #1 MATS Compliance
Retrofit Project

DEPARTMENT: Utilities

ESTIMATE: \$49,284,669.00

FUND/ACCOUNT: 520

PUBLICATION DATE: August 14, 2012

NO. POTENTIAL BIDDERS: 9

SUMMARY

Bidder:	<u>Hayes Mechanical</u> Chicago, IL	<u>Babcock & Wilcox</u> Barberton, OH
Bid Security:	Great American Ins. Co.	Federal Ins. Co., et al
Exceptions:	Noted	Noted
Bid Price:		
Material:	\$17,015,876.00	\$23,983,522.00
Labor:	\$21,763,011.00	\$31,379,280.00
Sales Tax:	<u>\$ 1,191,113.00</u>	<u>\$ 1,761,235.00</u>
Total Bid:	\$39,970,000.00	\$57,124,037.00
Bidder:	<u>Burns & McDonnell</u> Kansas City, MO	<u>AMEC</u> Tucker, GA
Bid Security:	Fidelity & Deposit Co.	Ins. Co. of the State of PA
Exceptions:	Noted	Noted
Bid Price:		
Material:	\$19,783,000.00	\$23,170,124.00
Labor:	\$27,828,000.00	\$16,542,557.00
Sales Tax:	<u>\$ 1,308,000.00</u>	<u>\$ 1,476,650.00</u>
Total Bid:	\$48,919,000.00	\$41,189,331.00
Bidder:	<u>Babcock Power, Inc.</u>	<u>KBR</u>

Bid Security: Worcester, MA
Exceptions: National Union Fire Ins. Co.
Noted

Birmingham, AL
Federal Insurance Co.
Noted

Bid Price:
Material: \$50,542,012.00
Labor: \$13,774,277.00
Sales Tax: \$ 964,199.00
Total Bid: \$65,280,488.00

\$29,885,622.00
\$13,776,238.00
\$ 2,117,983.00
\$45,779,843.00

Bidder: Zachry Industrial, Inc.
San Antonio, TX
Bid Security: Travelers Casualty & Surety Co.
Exceptions: Noted

Black & Veatch
Overland Park, KS
Federal Insurance Co.
Noted

Bid Price:
Material: \$24,540,083.00
Labor: \$32,481,547.00
Sales Tax: \$ 1,474,185.00
Total Bid: \$58,495,815.00

\$32,932,342.00
\$17,768,658.00
\$ 1,692,500.00
\$52,393,500.00

cc: Tim Luchsinger, Utilities Director
Jason Eley, Purchasing Agent
Lynn Mayhew, Assist. Utilities Director

Bob Smith, Assist. Utilities Director
Pat Gericke, Utilities Admin. Assist.
Kurt Spiehs, Utilities Dept.

P1593

RESOLUTION 2013-23

WHEREAS, the City of Grand Island requested proposals for Mercury and Air Toxic Standards (MATS) Retrofit Project at Platte Generating Station, according to plans and specifications on file with the Utilities Department; and

WHEREAS, on January 8, 2013, Council approved the award of the MATS Compliance Retrofit Project to AMEC, of Tucker, Georgia, in the amount of \$41,189,331.00; and

WHEREAS, Utilities and Legal staff have discussed the terms of the MATS Compliance Retrofit Project with AMEC staff and agreed upon the final contract language.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the contract for Mercury and Air Toxic Standards with AMEC, of Tucker, Georgia, is hereby approved, and that the Mayor is authorized to sign the contract on behalf of the City of Grand Island.

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Adopted by the City Council of the City of Grand Island, Nebraska, January 22, 2013.

Jay Vavricek, Mayor

Attest:

RaNae Edwards, City Clerk

Approved as to Form	▣ _____
January 18, 2013	▣ City Attorney