**ITEM # 27**
**DATE: 05-22-12**

## COUNCIL ACTION FORM

**SUBJECT: ENERGY RESOURCE OPTIONS STUDY**

**BACKGROUND**:

In recent years, certainly since 2008, the electric utility industry, especially those with fossil-fueled generation resources has been challenged by the introduction of several imposing environmental regulations promulgated by the United States Environmental Protection Agency (EPA). At the same time, the price and supply of natural gas has improved significantly, due primarily to the additional supply of natural gas in the United States made available as a result of "fracking," but also in part related to the softening of the demand for natural gas as a result of the economic recession. These two factors, severe environmental regulations and the low price and abundance of natural gas, together has caused the industry to seriously evaluate its strategies of how to generate electric power in the future. Likewise, the City of Ames, with two coal-fired generating units 45 and 30 years old, must now evaluate their future role of supplying power for the City of Ames electric ratepayers in light of these same forces.

The City of Ames municipal electric utility, Ames Municipal Electric System (AMES), is soliciting the services of an architect-engineering (AE) firm with vast and current knowledge and experience pertaining to the design, engineering, costs, and application of equipment associated with electric power generation, including environmental control processes and equipment.

The City is in need of a study to assess the electric generating and power supply options to satisfy the City's future electrical power requirements, especially in light of the variables and constraints that currently exist and for those that are expected in the future, most notably the rules and regulations recently proposed or finalized by the United States Environmental Protection Agency (EPA).

The basic scope of work is as follows:

> Starting with AMES existing electric utility infrastructure including its power generation assets and resources, evaluate all possible (and credible) options for generating electricity and supplying power to satisfy the City's electrical power requirements for 2015 and beyond.

On March 21, 2012, the request for proposal (RFP) document was issued to nine firms for the solicitation of proposals. On April 27, 2012, staff received competitive proposals from six firms. These proposals were then sent to a committee for evaluation. The committee consisted of the Assistant City Manager, the Director of Electric Services, the Assistant Director of Electric Services, the Power Plant Manager, the Electric Services Maintenance Superintendent, the Electric Services Operations Superintendent, the Energy Procurement Coordinator, a Power Plant Engineer, and the Resource Recovery Superintendent.

The committee members independently evaluated and scored all six of the proposals in two separate steps.

**STEP 1:**

In the first step the written proposals were evaluated and scored considering the following:

- Assigned staff's knowledge and experience – especially pertaining to EPA regulations, price forecasting of energy commodities and electrical power, engineering and costing of SCCTs and CCCTs, and retrofitting coal-fired power plants with BACT equipment
- Firm's experience and capability to perform the study
- Comprehension of the RFP and the completeness of the proposal
- Availability of staff and other resources to meet schedule
- Price

Based on the matrix, the averaged weighted scores for Step 1 are:

| Offerors | Averaged Scores | Not-to-Exceed Amount |
|---|---|---|
| Black & Veatch Corporation<br>Kansas City, MO | 789.78 | $375,000 |
| Stanley Consultants, Inc.<br>Des Moines, IA | 783.44 | $338,000 |
| Kiewit Power Engineers Co.<br>Lenexa, KS | 749.89 | $478,799[1] |
| Zachry Engineering<br>Minneapolis, MN | 694.56 | $530,000[2] |
| SAIC Energy, Environment & Infrastructure, LLC,<br>St. Paul, MN | 682.22 | $159,981 |
| Sega Inc.,<br>Overland Park, KS | 665.00 | $269,900 |

[1] Kiewit Power's price includes three options of $60,104, $24,094, and $13,391 added to their base price of $381,210 to make their proposal essentially equivalent to the other proposals. Kiewit's price does not include costs for the four (4) required meetings.

[2] Zachry Engineering's price is an estimated price – it is not a "not-to-exceed" price. The price does include an adder for $100,000 for consultations with the boiler OEM's regarding the conversion of the boilers to natural gas.

Each score was based on a scale of 1 to 10. Overall, 1,000 possible points were available cumulatively for each firm's written proposal. The overall weighted score was a function of the aforementioned evaluation factors.

**STEP 2:**

The evaluation team invited the top three firms for oral presentations. Each firm brought as many key members (especially the team leader or project manager) of their study team to the presentation. Each firm was also allowed up to four hours time to make their presentation to the City.

Presentations were evaluated and scored considering the following:

- Knowledge and relevant experience of staff assigned to perform the study
- Study process and methodology
- Commitment and enthusiasm for the project
- Comprehension of the scope of work
- Quality and thoroughness of the presentation

Based on the matrix, the averaged weighted scores for the semi-finalists are:

| Offerors | Averaged Scores | Not to Exceed Amount |
|---|---|---|
| Black & Veatch Corporation<br>Kansas City, MO | 852.50 | $375,000 |
| Stanley Consultants, Inc.<br>Des Moines, IA | 789.38 | $338,000 |
| Kiewit Power Engineers Co.<br>Lenexa, KS | 706.88 | $478,799[1] |

[1] Kiewit Power's price includes three options of $60,104, $24,094, and $13,391 added to their base price of $381,210 to make their proposal essentially equivalent to the other proposals. Kiewit's price does not include costs for the four (4) required meetings.

Each score was based on a scale of 1 to 10. Overall, 1,000 possible points were available cumulatively for each firm and their presentation. The overall weighted score was a function of the aforementioned evaluation factors.

**Based on the averaged weighted scores and a unanimous decision by the evaluation committee, staff recommends that a contract be awarded to Black & Veatch Corporation, Kansas City, MO, in the not-to-exceed amount of $375,000. Payments would be calculated based on unit prices (as proposed) for actual work performed.**

There were very specific reasons why Black & Veatch Corporation stood out as the strongest firm to conduct this study for the City of Ames, even though their proposal was not the lowest price. These include:

1. First and foremost, Black & Veatch's ability to model in detail our utility's generation resources and transmission capabilities in relation to the MISO footprint and the Midwestern United States interconnected electric grid was deemed to be far

superior. As an example, their model has the ability to estimate the price of power at a specific grid (node) location due to the impact of environmental regulations upon specific power plants, including the retirement of some and the increased production cost of others due to the retrofitting of environmental control equipment. Their model also has the ability to calculate the price of power due to the ability or the inability (constraint) of the electric transmission system to move power.

2. The demonstration during the Presentation of their knowledge of the current and proposed environmental regulations and the potential impact upon our power plant.

3. Their portfolio of relevant and similar work, plus the wide and deep knowledge base and experience Black & Veatch has in all areas necessary to perform the study.

4. They are the only firm who identified and suggested consideration of temporary or portable solutions for compliance, given the tight timeframes EPA has identified for compliance (with CSAPR and MATS) – compliance timeframes that the industry has strongly informed EPA were inadequate.

5. The ability of Black & Veatch to model in detail the City of Ames electric utility energy resource options, optimizing how and when to produce power, purchase allowances, purchase power, etc.

**Council should note that price in this proposal process was intentionally not a majority weighting factor in the overall evaluation, in deference to the more important aspects of qualifications, experience, and ability to perform the work.**

The funding for this study will come from the Electric Administration's "Outside Professional Services" budget ($45,000 in 11/12, and $50,000 in 12/13), and from the Fuel & Purchased Power budget which has available funds due to less than anticipated usage of coal and fuel oil, and pricing for purchased power less than anticipated.

**ALTERNATIVES:**

1. Award a contract to Black & Veatch Corporation, Kansas City, MO, for the Energy Resource Options Study in the not-to-exceed amount of $375,000.

2. Reject all proposals.

**MANAGER'S RECOMMENDED ACTION**:

This study is an essential tool that the Ames Municipal Electric System and the City of Ames needs in order to be able to make the decisions necessary to comply with the environmental regulations and to continue to provide power for its ratepayers and citizens.

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