

ITEM #: 17  
DATE: 09-24-24  
DEPT: ELEC

**COUNCIL ACTION FORM**

**SUBJECT: CONSULTANT FOR POWER GENERATION LIFE ASSESSMENT**

**BACKGROUND:**

Electric Services has two steam boiler units, Unit 7 and Unit 8, that produce a combined nameplate capacity of 98 Megawatts (MW). Unit 7 was first put into operation in 1967 with the ability to burn natural gas and/or coal. In the early 1970s, the City of Ames made the decision to construct a Waste-to-Energy (WTE) system to recover materials from the waste stream and convert it into fuel to produce energy. Unit 7 started co-firing Refuse Derived Fuel (RDF) with coal in 1975. Unit 8 was then constructed and put online in 1982. Unit 8 was similarly designed to co-fire RDF with coal. Both units were converted from coal-fired to natural gas-fired in 2016.

**Both units have been in service beyond the number of years they were initially designed to operate. They have undergone significant modifications and repairs to continue burning RDF. The age of Units 7 and 8, together with the corrosive nature of RDF, have raised concerns about the long-term viability of their operation.**

**Given these concerns, Electric Services staff is proposing to retain a firm to evaluate the remaining lifespan of the existing units. This evaluation will take into consideration the state-of-repair of the units, the conditions experienced by them, and the availability of replacement parts and equipment.**

On July 30, 2024, a Request for Proposals (RFP) document was posted on AmesBids by the City's Purchasing division. On August 20, 2024, three proposals were received.

<b>FIRM</b>	<b>PRICE</b>	<b>EVALUATION RANK</b>
HDR Engineering Omaha, NE	\$98,000	1
Burns & McDonnell Chicago, Illinois	\$132,000	2
ENTrust Solutions Group Warrenville, Illinois	\$120,410	3

An evaluation team was formed by staff to review proposals. Proposals were evaluated on experience, qualifications of personnel working directly on the project, capability of providing the requested services, and pricing. **After evaluating the proposals, staff determined that the proposal from HDR Engineering, Inc., of Omaha, NE, is most acceptable.** The experience and qualifications of the personnel, along with number of similar projects completed by the firm, best fit the needs of the City.

Funding for this study will come from the Power Plant's FY 2024/25 operating budget where \$130,000 was budgeted for engineering services.

**ALTERNATIVES:**

1. Award a contract to HDR Engineering, Inc., of Omaha, NE, for Consultant for Power Generation Life Assessment, in a lump sum of \$98,000.
2. Award a contract to another firm.
3. Reject all proposals.

**CITY MANAGER'S RECOMMENDED ACTION:**

**Understanding the long-term viability and the expected operating/maintenance costs of both Unit 7 and Unit 8 are important in the creation of the future long-term generation plans for Electric Services.** Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No.1 as stated above.