

COUNCIL ACTION FORM

**SUBJECT: PROFESSIONAL SERVICES CONTRACT FOR WASTE-TO-ENERGY
CONVERSION TECHNOLOGY ALTERNATIVES**

BACKGROUND:

This project is to secure a qualified consultant to conduct a feasibility study that identifies alternatives to the current method of direct burning of solid Refuse Derived Fuel (RDF). **This is an initial study to determine viable and cost-effective alternatives to current processes. It is not system design, design-build, or construction work.** The study would focus on existing municipal solid waste (MSW) stream. This is a joint project for the Electric Services and Public Works departments.

Municipal solid waste (MSW) from all of Story County is received for processing at the City's Resource Recovery Plant. Approximately 54,000 tons of MSW are received at the Plant annually, of which approximately 70% is processed into refuse derived fuel (RDF). The RDF is burned in conjunction with pulverized coal at approximately a 10/90 ratio, respectively. The Power Plant handles the RDF product in each of the two downdraft boilers. Additional boiler wear occurs with the injection of RDF into the firebox, shortening the lifecycle of the boiler tubes and related equipment.

The objective of the proposed study is to explore newer technology that could reduce or eliminate some of these negative effects while providing a more consistent product. In addition, the study is to address storage capacity issues at the RDF storage facility, which is regularly at maximum capacity. The ultimate goal of the study is to create a more consistent fuel product from the RDF, while still providing a sustainable and economical fuel product to the Power Plant or the open market place.

On April 19, 2010, a Request for Qualifications (RFQ) was issued to 34 consulting firms. The RFQ was advertised on the City's current bid opportunities web page and also with *Biofuels Digest*. A total of 65 sets of the RFQ documents were issued. The pre-proposal process included a formal written questions process and a pre-proposal meeting with site inspection tours of both the Power Plant and the Resource Recovery Plant. The RFQ stated that the selection process would generally consist of the following steps:

- Consideration of quality factors.
- Consideration of price for those firms deemed most qualified.
- Formal interviews/presentations if determined necessary.
- Consideration of interviews/presentations.
- Negotiation of final scope of work and price.

- Contract approval by City Council.

On June 15, 2010, proposals were received from nine firms, with an additional six firms submitting letters declining to propose. The nine responses were referred to a team including the Assistant City Manager, the Director of Electric Services, the Superintendent and the Assistant Superintendent of the Resource Recovery Plant, and the City Manager Intern.

In Phase 1 of the evaluation process, the evaluation team independently scored the proposals on the following quality criteria:

- Pass/Fail Completeness of proposal and compliance with proposal requirements (responsiveness)
- 20% Project understanding
- 25% Experience and qualifications of firm with existing commercially viable technology
- 25% Experience and qualifications of proposed key personnel
- 15% Proposed method of work

All responses were determined to be responsive. Average quality scores were:

Respondent	Average Quality Score
Alternative Resources, Inc. (ARI), Concord, Massachusetts	70.5
URS Corporation, Columbus, Ohio	68.7
HDR Engineering, Omaha, Nebraska	68.1
Black & Veatch, Overland Park, Kansas	66.5
Burns & McDonnell, Kansas City, Missouri	64.9
Dvirka and Bartilucci, South Plainfield, New Jersey	64.8
Gershman, Brickner & Bratton, Inc., Fairfax, Virginia	63.6
SCS Engineers, Tampa, Florida	60.9
ISES Corporation, Stone Mountain, Georgia	47.7

Price score was calculated with a weight of 15%, using the price component that was submitted separately from the quality proposal. It should be noted again that price was not a factor in the above scoring. Since price and final scope of work were subject to negotiation, the evaluation team unanimously concluded that the three firms with highest quality scores would be invited to present:

Alternative Resources, Inc. (ARI)
URS Corporation
HDR Engineering

These three firms were asked to provide samples of a final report prepared by the company for a study of similar size, and if available similar scope. The sample was to be an example of the style, formatting, etc., that the company would provide if awarded this contract. The firms were also provided with a list of nine points that were to be covered in the presentation, which was limited to two hours. The presentations were

scored by the evaluation team plus the Director of Public Works and a staff member of ISU's Center for Sustainable Environmental Technologies. Criteria for scoring the presentations related to the original RFQ evaluation criteria:

- 35% Communication style, method, and processes (ref. proposed method of work)
- 25% Knowledge and experience with MSW conversion technologies (ref. experience and qualifications of firm with existing commercially viable technology)
- 20% Completeness of addressing questions/issues (ref. completeness of proposal and compliance with proposal requirements)
- 20% Interest in the project (ref. project understanding and proposed method of work)

The presentation scores were:

Firm	Average Score
URS Corporation	87.93
Alternative Resources, Inc.	82.50
HDR Engineering	69.07

References were contacted for the two highest scoring firms. **The evaluation team unanimously determined that URS Corporation is the preferred firm to provide these services.** Following discussions with URS Corporation, **a revised price proposal was received in an amount not to exceed \$89,600 with no reduction in the scope of services.** Funding is available as follows:

Outside professional services for Electric Administration	\$50,000
Resource Recovery Recyclables Buildings/Structures	<u>\$40,000</u>
Total funding	\$90,000

ALTERNATIVES:

1. Award a contract to URS Corporation, Columbus, Ohio, in an amount not to exceed \$89,600 for professional services for the Feasibility Study, Waste to Energy Conversion Technology Alternatives.
2. Direct staff to enter into negotiations with one of the other consulting firms that submitted proposals for the Feasibility Study, Waste to Energy Conversion Technology Alternatives.
3. Reject all proposals and do not contract for professional services for Feasibility Study, Waste to Energy Conversion Technology Alternatives at this time.

MANAGER'S RECOMMENDED ACTION:

The proposed feasibility study would identify viable and cost-effective alternatives to the current method of direct burning of solid Refuse Derived Fuel. Focusing on the existing municipal solid waste (MSW) stream, the study would explore newer technology that

could reduce or eliminate some of factors that cause additional wear on the boilers and provide a more consistent product. It would also address storage capacity issues at the RDF storage facility.

The Council should again note that this is not a conceptual design study, nor will the end result of the study be a “project”. This study will provide an analysis of the technology which has been developed recently in the field of renewable fuels, as it may provide advantages to our current Resource Recovery and Power Plant operations. It will also analyze the most beneficial business model for the City should we decide to pursue the technology further. Should the Council choose to move toward implementation of any of the new technologies, the City would then enter into a second RFP or bid process to secure the services of a firm to actually design a project.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby approving the contract with URS Corporation in an amount not to exceed \$89,600 for professional services for the Feasibility Study, Waste to Energy Conversion Technology Alternatives.