ITEM # 11
DATE: 08-14-12

COUNCIL ACTION FORM

SUBJECT: PROTECTIVE RELAY AND ARC FLASH STUDY FOR POWER PLANT

BACKGROUND:

This project is to complete a through comprehensive power plant electrical distribution system study. It will address arc flash hazards and reviewing all protective relay settings and optimizing the relay settings to minimize hazards and maximize equipment and system protection. Personal protective equipment requirements for operating and maintenance personnel, equipment labeling review and updates and training for plant personnel is also part of this project. Review of all current practices will also be accomplished.

The work will involve hiring a professional electrical engineering firm to verify all current plant protective relay and fuse settings and schemes to insure protection of all plant equipment and optimize personnel protection, and to complete a comprehensive arc flash study and determine clearance requirements and personal protective equipment requirements for operation and maintenance personnel.

The basic scope of work is as follows:

> This project will include analyzing the both the main plant and gas turbine facility internal electrical distribution and protection systems from the generators and alternate power supply through the high voltage step up transformers, auxiliary transformers and on through the plant load distribution system. The engineering firm will perform the necessary field verification, analysis, reports, labeling and training needed to meet all OSHA requirements, industry standards and comply with good engineering practices.

On May 8, 2012, a request for proposal (RFP) document was issued to thirty-one firms for the solicitation of proposals. The RFP was advertised on the Current Bid Opportunities section of the Purchasing webpage and was sent to two plan rooms. On June 11, 2012, staff received competitive proposals from twenty-one firms. These proposals were then sent to an evaluation committee consisting of two Power Plant Engineers, an Electrical Engineer, and an Instrument and Controls Technician.

The committee members independently evaluated and scored all of the proposals. Each proposal was evaluated based on: 1) knowledge, capabilities, skills, and abilities with equipment of the size and type used in the power plant based on information submitted; 2) ability and commitment to meet the required milestones and complete the work; 3) compliance with the RFP requirements and the proposer's implementation plan; 4) firm's experience with the facilities involved; and 5) rates.

Based on the matrix, the averaged scores are as follows:

Offerors	Averaged Scores	Not-to-Exceed Amount
UTILITIES PLUS ENERGY SERVICES, INC EVELETH, MN	776.50	$48,440.00
BLACK & VEATCH CORPORATION KANSAS CITY, MO	726.25	$157,250.00
BURNS & MCDONNELL KANSAS CITY, MO	725.00	$87,580.00
ZACHRY ENGINEERING MINNEAPOLIS, MN	724.25	$139,500.00
SEGA INC STILWELL , KS	708.00	$65,000.00
PATRICK ENGINEERING, INC. LISLE, IL	701.00	$30,820.00
STANLEY CONSULTANTS, INC. MUSCATINE, IA	699.75	$151,268.00
NEI ELECTRIC POWER ENGINEERING, INC. WHEAT RIDGE, CO	687.50	$20,685.00
EATON CORPORATION LINCOLN, NE	681.75	$95,190.00
MIDWEST ENGINEERING CONSULTANTS, LTD MOLINE, IL	651.75	$94,000.00
AVO TRAINING INSTITUTE, INC., DALLAS, TX	651.00	$26,700.00
PERFORMANCE POWER SERVICES, P.C. NAPERVILLE, IL	648.00	$39,620.00
BROWN ENGINEERING COMPANY DES MOINES, IA	622.25	$86,500.00
KJWW ENGINEERING CONSULTANTS DES MOINES, IA	597.50	$47,800.00
ELECTRICAL CONSULTANTS, INC BILLINGS, MT	592.00	$74,364.00
RMF ENGINEERING, INC. COLUMBUS, OH	586.75	$180,288.00
TECHNICAL POWER SERVICES TULSA, OK	583.25	$187,130.00
SHERMCO INDUSTRIES DES MOINES, IA	531.00	$46,800.00
LEWELLYN TECHNOLOGY INC. LINTIN, IN	530.75	$65,359.00
ELECTRICAL TESTING SOLUTIONS OSHKOSH, WI	524.75	$36,410.00
KINECTRIC NORTH AMERICA INC. TORONTO, ONTARIO	251.75	$75,974.00

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.

Based on the averaged weighted scores and a unanimous decision by the evaluation committee, staff recommends that a contract be awarded to Utilities Plus Energy Services, Inc., Eveleth, MN, in the not-to-exceed amount of $48,440. Payments would be calculated based on unit prices (as proposed) for actual work performed.

There were very specific reasons why Utilities Plus Energy Services, Inc. stood out as the strongest firm to conduct this study for the City, even though their proposal was not the lowest price. These include the following:

1. Utilities Plus has extensive power plant experience with this type of study project. They proposed the lowest not-to exceed cost among those that had sufficient power plant background. Many of the offerors have completed mostly work on commercial facilities. Power plants present unique challenges due to the numerous crosstie electrical connections.

2. The City has had positive experiences working with Utilities Plus in the recent past including the turbine - generator vibration study and the preparation of a specification for the electrical maintenance service contract.

3. Utilities Plus demonstrated a clear understanding of the RFP and project scope.

The funding for this study will come from the approved FY 2012/13 operating budget for Electric Production, which includes $60,000 for outside professional services.

ALTERNATIVES:

1. Award a contract to Utilities Plus Energy Services, Inc., Eveleth, MN, for the Protective Relay & Arc Flash Study for Power Plant in the not-to-exceed amount of $48,440.

2. Award the contract for relay and arc flash study to one of the other companies who submitted a proposal.

2. Reject all proposals.

MANAGER'S RECOMMENDED ACTION:

This study is essential to comply with safety regulations and best industry practices. Staff believes that Utilities Plus Energy Services, Inc. has the best combination of power plant experience and familiarity with the Ames Power Plant.

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