

COUNCIL ACTION FORM

SUBJECT: **POWER PLANT SCADA SYSTEM UPGRADE**

BACKGROUND:

The City of Ames Electric Services uses a Supervisory Control and Data Acquisition (SCADA) System to monitor status and control power flows, electric generation, interconnections to neighboring utilities, distribution, and transmission. Data from the SCADA is used as the basis for billing energy transactions.

The existing SCADA system was installed in 2000 with hardware updates in 2008 and 2013. The SCADA system was supplied and is supported by Open Systems International, Inc. (OSI) from Medina MN.

It has been common practice to update the SCADA system hardware every 5 years to maintain reliability and maintainability. The proposed upgrades will apply to all hardware in the current system including 11 servers, 6 work stations, 2 mobile work stations, 1 Open Transaction Management System License, all third party software to support SCADA, a new GPS clock, firewalls and modems, Factory Acceptance Testing, and training, . The new hardware will also help staff keep current in a world subject to North American Electric Reliability Corporation (NERC) operating requirements.

The City initially requested bids from 3 companies with expertise to perform the work. The three companies were General Electric, Siemens Corporation, and Open Systems International, Inc. Both Siemens and Open Systems International responded with proposals. The two final proposals are as follows:

Open Systems International, Inc, Medina, MN	\$282,106
Siemens Corporation, Washington, D.C.	\$578,400

Upgrading our existing SCADA with OSI is the most practical and cost-effective way to meet the new system requirements while gaining more functionality and security. This requires a single-source purchasing arrangement with the current SCADA software supplier.

Staff recommends awarding a contract to Open Systems International, Inc., of Medina, MN in the amount of \$282,106. Since Open Systems International, Inc. is not licensed to collect sales taxes for the State of Iowa, the City would pay applicable Iowa sales taxes directly to the state.

It was anticipated the hardware upgrade would span between both fiscal years.

Since it was anticipated the hardware upgrade would span two fiscal years, the FY 2017/18 FY 2019/18 budgets include \$175,000 in each year for hardware upgrades.

ALTERNATIVES:

1. Award a contract to Open Systems International, Inc., Medina, MN, for the Power Plant SCADA Hardware Upgrade in the amount of \$282,106. The City will pay applicable sales taxes directly to the State of Iowa.
2. Award the contract to the other bidder.
3. The City Council can postpone the SCADA hardware upgrade, but will run the risk of replacement hardware components not being available or even the current hardware failing. This adds to the risk of non-compliance with MISO operating requirements.

MANAGER'S RECOMMENDED ACTION:

The Electric Utility is required by regulatory authorities to maintain a functional SCADA system. In addition, it is in the City's best interest to update the SCADA system in a timely and cost-effective manner. **The most effective way to complete this SCADA system upgrade is to enter into an agreement with our existing SCADA software supplier to complete the current hardware upgrade.**

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