

COUNCIL ACTION FORM

**SUBJECT: WATER POLLUTION CONTROL FACILITY ELECTRICAL
SWITCHGEAR REHABILITATION**

BACKGROUND:

The City's Water Pollution Control Facility has a 277/480-volt, 3,000-amp automatic switchgear that was manufactured by States Electric of Minneapolis, Minnesota and was placed in service in the mid- to late 1980s. The switchgear controls a Caterpillar 3516 diesel engine emergency generator set. When there is an electric utility failure or when initiated by the operators for other reasons, the switchgear sends a "start" signal to the generator. When the generator is running, the utility breaker and the feeder breakers trip off. The generator main breaker then closes, and the feeder breakers close sequentially based on timing controls in the switchgear. When the "normal" utility source returns, the switchgear control system trips the main and feeder breakers, stops the generator, and then closes the utility breaker and sequentially closes the feeder breakers.

The switchgear is in need of cleaning and inspection to maintain its reliability. In order for a contractor to perform this safely, the switchgear must be isolated with all power locked out. Since the Water Pollution Control Facility must remain in continuous operation, portable generators must be used to power and maintain treatment. This project will involve rental of portable generators, temporary connections of the generators to supply power to the facility, cleaning and inspection of the switchgear, removal of the portable generators' connections, and restoration of normal operation. The project will necessitate extensive coordination between the general contractor, possible subcontractors, and City staff to schedule the project during a time of low flow to minimize the number of portable generators necessary and to maximize the time frame to accomplish the project.

The approved FY 2010-11 Capital Improvements Plan included replacement of the main plant transformer, with the maintenance on the switchgear shown in FY 2011-12. Because of ongoing problems with the switchgear, these two projects were reprioritized in the mid-year budget amendments. Funding of \$100,000 is available in the current year for this project. The engineering consultant's contract has already been awarded in the amount of \$15,000. The anticipated cost for the general contractor and any possible subcontractors is \$85,000.

ALTERNATIVES:

1. Grant preliminary approval to the plans and specifications and issue a Notice to Bidders, setting July 14, 2011 as the bid due date and July 26, 2011 as the date for public hearing and award.
2. Do not approve plans and specifications at this time.

MANAGER'S RECOMMENDED ACTION:

The electrical switchgear is an integral and vital component of the Water Pollution Control Facility, and must operate correctly to assure uninterrupted operation of the plant. It is in the City's best interest to maintain this unit in a high degree of reliability.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby approving the plans and specifications and issuing a Notice to Bidders for this project as described above.