



City of Woodland

REPORT TO MAYOR AND CITY COUNCIL

AGENDA ITEM

TO: THE HONORABLE MAYOR
AND CITY COUNCIL

DATE: October 21, 2008

SUBJECT: Emergency Generators Purchase Authorization

Report in brief

During the wind storms in early 2008 the power failed in many parts of the City and as a result power was not available to many of the City's wells. Fortunately no water use emergency occurred during that time because the City system was down to a small number of backup wells. As a result of this event, it was decided to pursue the purchase of three backup emergency generators to provide power to the City wells if a power outage occurs during a storm event or during a summer outage.

This project will provide additional backup power to three existing wells and have two additional wells wired to receive power from a portable generator if needed.

Staff recommends the City Council authorize the City Manager to purchase three new generators through the bid process or use existing cooperative purchase agreements not to exceed \$150,000 for each generator.

Background

The January 4, 2008 wind and rain storm knocked out power to most of the City for several hours and some areas were without power for a few days. While the impact of downed trees, localized flooding and power loss to homes and businesses was significant, staff believes that there was also a significant risk due to the fact that water demand could have exceeded the City's ability to deliver water. Of the 20 wells that were operating on January 4, only four had automatic backup power and three more have manually engaged backup power. Two days before the storm Well 17 (one that has an automatic backup generator) went inoperable due to an electrical fire in its motor. The loss of electrical power affected 16 of the 20 wells. The City was fortunate that the event happened on probably one of the lowest water use days of the year when only 3 or 4 wells could meet the demand and there was not a major fire event. If a similar event occurred during a peak water use period, the demand for water would have had major health and safety impacts. Also, it takes a considerable amount of time to connect up the direct drive powered wells and those wells would not likely be available for some time during a fire event. The delay would even be longer if the fire occurred after work hours or on a weekend when staff would have to be located and called in. Since January 4,

2008 two more wells have become inoperable; Well 22 due to sand and Well 15 due to well screen failure.

If demand exceeds water delivery capacity, it may result in the following problems:

1. Increased low water pressure complaints.
2. Potential lack of sufficient water pressure for fire protection.
3. Increased potential for contamination within our distribution system.
4. Possibly the State recognizing the problem and preventing further building permit from being issued for development.

The City is presently scheduling projects like installation of a Supervisory Control and Data Acquisition System (SCADA) and the replacement of our elevated storage tank to prevent these problems. These projects are in addition to the planned replacement of Wells 15 and 22 for the spring of 2009. Likewise, the information we will get from the Water Focus Study later this year will solidify the information we need for future CIP budgets.

Discussion

The only feasible way to increase system reliability during either a power outage is to preposition these generators in the City of Woodland. This project will allow this to be accomplished in a reliable manner. Purchasing the generators as described herein will help the City meet its obligations under SB-610 (Water Supply and Land Use Planning) and comply with the Water Code Section 10912 (CEQA assurance of water delivery).

Rent vs. Purchase - Renting generators is an alternative; however, the lease would need to be long term to insure their availability during an event. When the City of Woodland needs this type capacity, other groups may have secured the available generators for their own emergency. In addition, it takes time to deliver the generators to the site.

Lease Purchase – A lease purchase is an acceptable alternative when the purchase price requires a large capital outlay that may not be available. The funding for these generators is currently planned for, approved in the operating budget and the capital budget and available in the Water Enterprise Fund. There is no impact to the General Fund. A lease purchase requires an ongoing finance charge that would be unnecessary in this case.

Fiscal Impact

Each new generator's cost is estimated at \$150,000 with funding from the Water Enterprise Fund. The total cost will not exceed \$450,000. Staff expects some operational savings through both reduced lifetime rental rates, time expended by staff and efficient restoration of power in emergency

situations. The expected life of generators is approximately 15 years. At that time their replacements will be included in each replacement well design.

Public Contact

Posting the City Council agenda.

Council Committee Recommendation

This issue was discussed with the Infrastructure Subcommittee and the concept was favorably received.

Alternative Courses of Action

1. Authorize the City Manager to purchase three new generators through the bid process or use existing cooperative purchase agreements not to exceed \$150,000 for each generator
2. Direct staff to make other arrangements for rental or lease of emergency generators during power outages.

Recommendation for Action

Staff recommends Alternative #1 that City Council authorizes the City Manager to purchase three new generators as proposed for a cost not to exceed \$150,000 each.

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