

WEST BASIN MUNICIPAL WATER DISTRICT**MARCH 13, 2008 - Water Resources**
Smith (Chair), Little**MARCH 24, 2008 - Board Meeting**

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ACTION CALENDAR

POWER DEMAND RESPONSE PROGRAMSUMMARY:

Southern California Edison (SCE) has a power Demand Response Program that pays customers to curtail electrical loads when the electrical grid is strained. Under the program, SCE can call for power curtailment during peak power use in the summer months. SCE has authorized six firms to aggregate electrical loads from its customers. These firms have contracts with SCE to curtail electrical loads when requested. These aggregators, in turn, depend on actual SCE customers to physically curtail use when requested.

In order to curtail electrical load, West Basin would have to stop treatment and delivery of recycled water. This would be counter to the goal of providing reliable service to our customers. The refineries especially, expect the recycled water to be reliable. However, staff believes that the recycled water to the Barrier could be shutdown for short periods, such as for this curtailment program and would be replaced by potable water. Based on a preliminary assessment, West Basin may be able to curtail 1.7 megawatts (MW) to 2.0 MW by shutting down the Barrier processes and thus reap a net benefit of \$130,000 or more. Staff is working with SCE to verify the amount of power that may be saved by shutting down the Barrier processes.

Staff issued a "Request for Proposals" (RFP) to six SCE authorized aggregators to evaluate the potential benefits versus costs. Three proposals were received. Each of the proposals has two components of payments made to West Basin if the West Basin were to enter the program. The first is the Capacity Payment that is based on the amount of MWs West Basin commits to curtailing when an event is called. West Basin would receive the payment whether or not an event is called. The second component is the Energy Payment that is based on the actual amount of power curtailed, measured in Megawatt Hours (MWh), when an event is called. Each proposal also differed in the number of hours in a year an event could be called. Major terms of each proposal are summarized in Exhibit A.

In order to compare the three proposals, staff evaluated the net benefit of each of the proposals. The net benefit was calculated by subtracting the potential lost recycled water revenues (by curtailing the Barrier deliveries) from the potential payments. The evaluations assumed the following:

- West Basin commits to curtail 1.7 MW when an event is called;
- The maximum number of curtailment hours is used in each proposal; and
- It is a two year commitment.

The results of the evaluations are shown in the following table. The EnerNOC and Ancillary Services Coalition proposals have virtually the same net benefit to West Basin assuming the worst case that the maximum program hours are called. If no events are called, the Constellation New Energy proposal would have the highest benefit. However, it is anticipated that events will be called over the two years.

Item	Firm		
	EnerNOC	Ancillary Services Coalition	Constellation New Energy
Capacity Payment	\$204,000	\$204,000	\$214,218
Energy Payment	\$53,550	\$97,920	\$66,096 (1)
Maximum outage hours per event	6 hrs.	6 hrs.	6 hrs.
Maximum outage hours per year	70 hrs.	96 hrs.	144 hrs.
Potential Lost Recycled Water Revenue	\$126,973	\$172,789	\$309,148
Net Benefit to West Basin (over 2 years)	\$130,577	\$129,131	-\$1,845

Note: (1) Based on natural gas price of \$12/Million Btu. April's price is about \$9.23/Million Btu.

Staff recommends entering into an agreement with EnerNOC to enter into their power demand response program for the following reasons:

- The net benefits of the program are virtually equivalent to or better than the other proposals;
- The number of hours that can be called in a year is the least of the proposals, lessening the impact to plant operations;
- There are no penalties associated with non-performance; and
- EnerNOC is offering to install an energy management program that will allow operating staff to view energy consumption on a near real-time basis.

United Water Services staff has indicated that 30 minutes notice is sufficient time to shut down the Barrier processes and are willing to curtail power when requested. Shutting down and starting up the Barrier is not fully automated and will require coordination between the control room and operators in the field.

FISCAL IMPACTS:

The Demand Response Program would bring in additional revenue to West Basin.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

The item was reviewed at the Water Resources Committee on March 13, 2008 and recommended for approval at the March 24, 2008 Board meeting.

RECOMMENDED MOTION:

That the Board authorizes the General Manager to enter into a two year agreement with EnerNOC, Inc. for a Demand Response Program to pay West Basin to commit to and curtail power load when requested. The committed load is anticipated to be 1.7 MW to 2 MW pending completion of an SCE study.

EXHIBITS:

Exhibit "A" – Summary of the Principle Terms of the Demand Response Proposals