

CASE STUDY



Demand Response: Water & Wastewater



“...it's just strictly an incentive.

If you can do it this day, you can go for it. But if you can't, you decide not to bid, there's no penalty on that.”

**District Manager and Staff Engineer
Water Storage District**



In California, water supply and wastewater systems are estimated to account for almost 7% of all electricity use. Pumping related to water distribution comprises the majority of that usage. Yet, even though water district facilities are very energy-intensive, we at Pacific Gas and Electric can still help you realize significant cash savings with a Demand Response program. Even facilities with limited aboveground storage capacity can achieve energy savings.

It is in everyone's interest to help maintain the integrity of the power grid. Demand Response is focused on reducing the risk of service interruptions caused by supply shortage, transmission constraints, or rolling blackouts.

DEMAND RESPONSE OPPORTUNITIES

Water districts are extremely energy-intensive operations. PG&E wants to pay incentives to customers to reduce their demand for electricity during peak hours. When water service organizations participate in Demand Response programs they have a positive affect on the grid. We spoke with such a district that delivers water to nearly 1,000 points to irrigate over 100,000 acres of agricultural land.

The Challenge

A water district wants to take advantage of the financial rewards that our Demand Response programs offer without impeding the recovery and distribution operations of their wells and groundwater recovery systems.

The Solution

Because they were able to create and follow a Demand Response action plan, the district shed 3 MW over three days last year while reducing demand from 8,000 kWh to 6,000kWh. To stay on track, their plan recommended focusing on three critical areas:

- Water pumps: Turn off pumps to maintain water levels to temporarily fall below target levels.
- Cooling: Turn off chillers and HVAC system.
- Other Key Equipment: Avoid or turn off backwash operations and wastewater aerators.

For these three events, the district eliminated about \$11,000 worth of on-peak rates and received a credit of \$12,000, netting \$23,000 in savings.

But it was more than just dollars and cents. As the Staff Engineer concluded happily, “We also know that we're doing our part to help California reduce its energy demand.”

NEXT STEP

Contact your PG&E representative or call our Business Customer Service Center now at 800-468-4743. We will help you determine what Demand Response program is right for you and how it can complement other programs in your Integrated Energy Management portfolio. Earn incentives with PG&E's Technical Audit/Technology Incentive program for the identification and installation of demand response enabling equipment. Complete details on these no-cost programs are available from your PG&E representative and our web site: pge.com/DemandResponse.



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