



Eastern Municipal Water District

Water District Taps Into SCE Programs To Receive Significant Energy Savings

When it comes to energy use at the Eastern Municipal Water District (EMWD), working with SCE to identify savings opportunities proves critical in reducing both operational and capital costs, according to Director of Purchasing and Contracts Dan Howell.

The district — which provides domestic and agricultural water, wastewater collection and treatment service, and recycled water in a 542-square-mile service area in Western Riverside County, CA — has tapped into a wide array of SCE programs to save energy, money, and the environment.

Energy Efficiency: Savings of More Than 10.4 Million kWh

Energy efficiency upgrades provide long-term savings opportunities, with financial incentives available to help offset up-front equipment costs. EMWD participation:

- Customized Solutions: For tailored energy-efficient equipment upgrades, such as the installation of pumps on variable frequency drives to improve operational efficiency.
- Free Pump Test Services Offering: To identify overall pump plant efficiencies

to achieve improvements that bring sites back to optimal design and productivity.

- Savings By Design (SBD): To offset water filtration and reclamation plant expansion costs and pump/booster station new construction costs via this program that encourages high-performance, nonresidential building design and construction.

The bottom line: Savings of greater than 10.4 million kilowatt-hours over more than seven years, with nearly \$850,000 in incentives to offset equipment and facility upgrade costs.

Demand Response (DR): Incentives of Over \$1 Million for Automated Demand Response (Auto-DR)

With DR, by reducing energy consumption during peak periods, you relieve stress on the electricity grid, reduce energy costs, and help the environment, and in turn earn bill credits that help offset your monthly energy charges. EMWD participation:

- Aggregator Managed Portfolio Program (AMP): DR program developed by authorized third parties for our customers.

Project Overview

SCE Programs Utilized:

- Customized Solutions
- Pump Test Services Offering
- Savings By Design
- Demand Response Programs including Automated Demand Response
- Renewable Fuel Cell Power Plants and Solar
- Agricultural and Pumping Interruptible Program

Results:

Overall savings of more than **10.4 million kWh**

Incentives:

Energy efficiency of nearly **\$850,000**

Auto-DR technology over **\$1 million**

On-site renewable energy resources of nearly **\$6.9 million**



“Our energy management efforts — including our partnership with SCE — have resulted in significant energy and cost savings, and we have been able to pass those savings on to our ratepayers.”

Philip E. Paule
Board President
Eastern Municipal Water District

- Time-of-Use Base Interruptible Program (TOU-BIP) and Agricultural and Pumping Interruptible Program (AP-I): Rate programs used for the reduction/interruption of energy use during periods of peak demand.
- Automated Demand Response (Auto-DR): To install upgraded SCADA (Supervisory Control and Data Acquisition/energy management) systems at EMWD’s two water filtration plants to allow initiation of automatic (versus manual) load reduction during DR events.

The bottom line: The ability to remove 11 megawatts — about a third of EMWD’s peak operating demand — through DR commitments, with incentives of more than \$1 million alone for the SCADA upgrades to utilize Auto-DR.

On-Site and Renewable Energy Resources: Nearly \$6.9 Million in Rebates

These programs provide incentives for installing on-site generation equipment to offset energy use, and rebates for producing clean, renewable electricity powered by the sun. EMWD participation:

- Self-Generation Incentive Program: Renewable biogas-fueled 300-kilowatt fuel cell power plants that generate electricity at two of EMWD’s water reclamation facilities.
- California Solar Initiative: A 559-kilowatt solar generating facility at EMWD’s headquarters, with additional solar projects planned at water reclamation and groundwater desalination plants.

The bottom line: More than \$6 million in incentives for the fuel cell power plants and \$896,000 in rebates for the completed solar project.

Early Engagement Is Critical

This impressive commitment to initiatives that reduce energy use is earning EMWD industry accolades. In 2012, the district received a Cool Planet Award, presented by SCE and The Climate Registry for environmental leadership in energy and carbon management. And in 2014, the American Water Works Association awarded EMWD an achievement award for best practices in energy conservation.

Even with all of its energy-saving success to date, EMWD continues moving forward to address further opportunities to reduce its energy consumption. In 2014, the district completed an energy management plan that reviews long-term strategic policies for its energy portfolio, including operational improvements to gain additional efficiencies.

Senior Director of Engineering Joe Mouawad noted that no matter a water district’s size, “early engagement with SCE is critical. It’s extremely valuable to help navigate through the program requirements to help maximize the benefits available.” Concluded Howell, “We can’t do our job without SCE.”



To learn more about SCE energy management solutions, ways to reduce your energy usage, and manage your energy costs, visit sce.com/business or call your SCE Account Manager.

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