



Eastern Municipal Water District works with Enel to earn payments in California demand response

Since its formation in 1950, Eastern Municipal Water District (EMWD) has transformed from a small water agency serving the agricultural industry to one of the largest water providers in southern California – serving a population of more than 630,000 in a 555 square-mile area. This innovative public agency provides water, water treatment, and other services to customers that rely on it for an always-available, abundant, and affordable supply of clean water.

EMWD first enrolled in demand response (DR) in 2007 and committed to reducing approximately 1.5 megawatts (MW) of its energy usage. It achieves these reductions by shutting down major electricity-using equipment, such as pumps, at two of its main water treatment plants. By participating in demand response, the agency receives payments of approximately \$100,000 a year from Enel. It also helps bring new stability to the electrical grid during peak periods, providing much-needed relief for Southern California Edison, its regional electricity provider.

CASE STUDY



Location

Perris, California



Program

Enel Demand Response in Southern California Edison



DR Earnings

~\$100,000 annually



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Identifying flexibility

“Unlike electricity, water has the ability to be stored, and we can often accommodate short-term outages without a reduction in service,” says Dan Howell, Director of Purchasing and Contracts. “We can store water in tanks. We have water coming in via our pipeline. And we have redundant sources, such as wells. So we have the flexibility to stop production at some of our facilities for a limited amount of time – with minimal effect on our operation.”

EMWD has long been an energy innovator. At its headquarters, it operates microturbine generators on natural gas, recovers heat via an absorption chiller, and provides more than 150 tons of cooling capacity – lowering energy use and capturing heat that would have gone to waste.

Minimal operational impact

DR is a key element of EMWD’s innovative programs aimed at using energy more intelligently, and Howell is quick to highlight that reducing electricity at a major water plant, such as EMWD, is a simple process that has no negative impact on their business.

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The most important benefit of demand response is that it can be easily implemented by EMWD – without requiring major changes or affecting its core mission of providing clean water to its constituents. Under the program terms, EMWD can choose to participate in a dispatch at varying levels by either running equipment at lower levels or shutting them down completely, and always has the option of manually restarting when necessary.

A professional DR partner

Working with Enel has been a great experience, according to Howell. “The demand response program is very professionally operated,” he says. “I’m impressed with the communications and very comfortable with our partnership with Enel.”



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