

POWER SOLUTIONS

CASE STUDY



STOCKTON EAST WATER DISTRICT

Location

Stockton, California

Market

Water Treatment Plant

Unique Obstacle

Supply backup power to a water district with the ability to pump a capacity of 50 million gallons per day

Units

Modular Power System (MPS), using four Generac MD600 (600kW) generators, with a power manager system controller

Solution

Four MD600 generators using a power manager system controller

Contact

Readers who may have similar application challenges and would like to discuss this success are invited to call 1-844-ASK-GNRC (1-844-275-4672)

When a Whole Town is Depending on You

The Stockton East Water District (SEWD), nestled in California's San Joaquin County, 80 miles east of San Francisco, was created in 1948 under the 1931 Water Conservation Act of California to protect and enhance the area's groundwater basin. To benefit the area's only reliable water supply which is critically overdrafted, SEWD provides surface water to both the agricultural and urban areas. In 1977, SEWD built a water treatment plant that provided 20 million gallons of water per day (MGD) to the Stockton urban area through its retail customers, the California Water Service Company, the City of Stockton and San Joaquin County. Today, the plant supplies a population of over 300,000 with over 60 MGD.

In 2006, SEWD began a \$4 million upgrade to its 30-year old pumping station. The old pump station had relied on diesel powered engines for daily water production and pumping during electrical power outages. On January 1, 2007, the EPA put into place clean diesel regulations requiring compliance by 2010. Faced with these regulations, which call for a reduction of 2.6 million tons per year of smog-causing nitrogen oxide, SEWD decided to switch to all electric motor driven pumps. This change left them vulnerable to blackouts and other weather-related power outages. Not wanting to take a chance with circumstances beyond their control, especially since an entire city population depends on them for their water supply, SEWD began looking at emergency

standby generators to supply backup power for pumping a capacity of 50 MGD. That's where Energy Systems, Stockton, California stepped in and introduced SEWD to Generac's Modular Power System (MPS) using 600kW generators and a power manager system controller. For this particular application, the system needed to provide 2,400 kW at 480 volts, which met SEWD's emergency power needs.

"We've had a great working relationship with Energy Systems and our rep, Don Richter, for years," says Ron Gregory, maintenance supervisor of Stockton East Water District. "When we told him about our switch over from diesel to electric motors and our need to have a reliable, powerful standby system in place in the event of an outage, he showed us Generac's MPS solution and we were sold and haven't been let down since. Due to the load that SEWD supports, the four Generac MD600 generators provide us with enough power to keep the plant running at its maximum capacity in the event of an outage, and the easy to use power manager system gives us peace of mind."

Since the installation in January 2008, the four Generac MD600 generators have been put to the test. "Because of the way that we sit on the power grid, we have had over a half dozen blackouts this year alone," says Gregory. "Our Generac generators have worked flawlessly for 68.4 hours in total. We are now confident that we will be able to provide the City of Stockton with uninterrupted service for years to come."

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