

## Renewable energy reaps savings at water district

### Microturbines use sustainable methane to save money at Santa Margarita Water District.

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Las Flores – For the Santa Margarita Water District, being environmentally conscious and fiscally conservative is not a bunch of hot air. Burning hot air has yielded big savings and reduced the District's carbon footprint.

For seven years, the district has saved more than \$410,000 by using a renewable energy source to power its Chiquita Water Reclamation Plant near Ortega Highway. The renewable energy source is methane gas, a greenhouse gas that is the byproduct of the water reclamation process. By utilizing the gas, the district removes it from the atmosphere and generates approximately 17 percent of the power needed to run the 29-acre facility.

#### A Fiscally Sound Solution

Methane – also called digester gas – is burned in microturbines 24 hours a day to provide energy to the plant. This process reduces the facility's energy consumption by approximately 10 percent each year.

The district recognized that letting the gas escape unused into the environment was wasteful and environmentally damaging, so it turned to the microturbines. The microturbines also generate heat that's used to generate hot water for the reclamation process. This has allowed the District to shut down two boilers that used non-renewable fuels, further reducing the plant's energy consumption.

"Being a good steward of the environment is one of the district's main priorities, and the microturbines have allowed us to greatly reduce our carbon footprint and save on energy costs over the past seven years," said John Schatz, Santa Margarita Water District's General Manager. "Each one of the microturbines recouped its installation cost within the first year of operation."

Assisting in the program was the South Coast Air Quality District, which donated two generators, and the San Diego Regional Energy Office, which donated more than \$92,000 toward the installation of two additional microturbines at the treatment plant in 2003.

#### Rewarded for its Efforts

The district's efforts have not gone unnoticed. Earlier this year, the plant was named Plant of the Year by the Santa Ana River Basin Section of the California Water Environment Association. The award recognized the district's exceptional effort in energy conservation as well as safety, innovation, process control, and maintenance at the facility.



Santa Margarita Water District burns methane for power through the use of these microturbines at their Chiquita Water Reclamation Facility. Using the microturbines saves the district up to \$8,000 a month on power.



Santa Margarita Water District has a dedication to educating youth about water. Here some school children take a look at a settling pond at the Chiquita facility.