

# Demand Response Success Story

## High-Tech Customer: Adema Technologies, Inc.



### Adema Technologies, Inc. Results:

- 29% reduction in plant electricity usage
- 420 kW demand reduction capacity
- \$37,500 incentive payments for 2007-08
- \$8,000 demand response credits from the Demand Bidding Program

If you are a high-tech, energy-intensive manufacturer, your participation in Pacific Gas and Electric Company's Demand Response (DR) programs can save you money and help maintain the integrity of California's electrical grid. DR reduces the risk of service interruptions when our electricity resources are in high demand by helping you shift your most energy-intensive activities to off-peak demand periods. PG&E can help you implement the minimum requirements to reduce energy use and realize financial incentives.

One such company has taken full advantage of PG&E's DR program. Adema Technologies, Inc. is one of the few monocrystalline silicon ingot manufacturers for the photovoltaic industry based in northern California. The company's goal is to become one of the top producers in the world.

### THE CHALLENGE

Manufacturing monocrystalline silicon ingots is an extraordinarily energy-intensive process. The ingots grow in 2,600-degree Fahrenheit furnaces called "pullers," which operate at 80 kW each. Within a 9,000 square foot manufacturing area, Adema Technologies, Inc. currently has 24 active furnaces and expects that number to increase to 48 pullers when the company achieves full capacity. Controlling energy costs for this very intense operation is critical to remaining competitive in the marketplace.

### THE SOLUTION AND RESULTS

Since 2004, PG&E and Adema Technologies, Inc. have worked as partners to coordinate a number of integrated demand response and energy efficiency programs and services. Adema Technologies, Inc.'s participation in the Demand Bidding Program (DBP) saved the company over \$8,000 in 2006 with demand response credits. Energy efficiency projects completed through the Non-Residential Retrofit Program have reduced plant electricity usage by an astounding 29%. A Technology Incentive (TI) project that supported a site evaluation allows the company to reduce demand by 420 kW by using real-time monitoring to evaluate current loading. With real-time monitoring, Adema Technologies, Inc. can reschedule ingot processing until after a DR event. In early 2007, Adema Technologies, Inc. also joined the Business Energy Coalition (BEC) Program. With full implementation of the dispatchable load activities related to the real-time metering system, the company received \$37,500 in incentive payments for the 2007-08 season.

### What Can You Do?

Contact your PG&E representative or call our **Business Customer Service Center** now at **1-800-468-4743**. We will help you determine what Demand Response programs are right for you and how they can complement other programs in your Integrated Energy Management portfolio. Complete details on these no-cost programs are available from your PG&E representative and our website:

[www.pge.com/DemandResponse](http://www.pge.com/DemandResponse).

