

"We are very satisfied. The Powerit system has fulfilled all our expectations as well as the estimated savings."

Mark Regus, Plant Manager, Pacific Alloy Casting Company

Case Study: Pacific Alloy Casting Company



Powerit's Financial & Environmental Impact:



30% decrease in peak demand



ROI: 10 months



Avoided the generation capacity to power 444 homes*



Equals generation capacity CO2 offset of 780 acres of fir tree forests

*Based on the US DOE Residential Energy Consumption Survey, 2003, and based on the definition of a single-family home.



Pacific Alloy Casting Company is a 70-year-old modern foundry that produces high-quality iron and steel castings, and gray and ductile irons used for common industrial castings. In their flexible manufacturing facilities, Pacific Alloy applies advanced foundry technology to comprehensively provide casting design assistance, pattern construction, casting production, and finish machining for a number of industries. Pacific Alloy's castings range from a few ounces to 12,000 pounds and include pump parts, crusher parts, agricultural products, asphalt products, surface mining products, HSI blow bars, and progressive cavity pumps.

Pacific Alloy Casting Co., South Gate, California

Initial Load Management Requirements:

- 600 kW ABB Induction Furnaces
- 1500 kW ABB Induction Furnaces

Powerit Solutions Installed:

- Energy Management Hardware and Software
- Konnekt™ Wireless IO
- Energy Monitoring and Reporting



A Powerful Need

Pacific Alloy is a foundry focused on reducing costs, eliminating waste, and maximizing returns on investments, which led them to seek an energy management system that would lower their power bill and improve the efficiency of their operations. To determine the potential for savings, Powerit Solutions conducted an energy assessment at the plant, identified controllable loads with plant personnel, and concluded that the Powerit Solutions' system could effectively control furnace loads to offset demand charges without adversely affecting production rates, building safety, or building comfort. The initial load strategy was to minimize coincident peak demand during the operation of the facility's two largest loads, a 600 kW induction furnace and a 1500 kW induction furnace.

A Powerful Solution

Since the Powerit Solutions' system was installed and implemented, Pacific Alloy has been able to manage and optimize the 600 kW induction furnace and the 1500 kW induction furnace from any networked PC in the plant. Specifically, Pacific Alloy uses simple, intuitive graphs based on real-time interval data collected from the utility meter and prioritizes the furnaces during periods of peak demand.

Before commissioning the system, Pacific Alloy expected a minimum average monthly demand reduction of 480 kW but has since seen a monthly reduction of 600 kW.

