

Custom Efficiency for Complex Projects



ON Semiconductor

2300 Buckskin Road
Pocatello, ID 83201
208-637-8178

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—Jake Evans, ON Semiconductor facility manager

ON Semiconductor Air Handler Upgrades Save Energy

The Business

ON Semiconductor is a preferred supplier of high-performance, energy efficient, silicon solutions headquartered in Phoenix, Arizona. The company operates a design and manufacturing facility in Pocatello, Idaho. Formerly known as AMI Semiconductor, which was started in 1966, the company was acquired by ON Semiconductor in 2008.

The company serves customers in a wide range of markets, including power supply, automotive, communication, computer, consumer, medical, industrial, mobile phone, and military/aerospace markets. Additionally, they offer a broad portfolio of products, including power, analog, digital signal processing (DSP), mixed-signal, advance logic, clock management, non-volatile memory,

and standard component devices.

In 2008, their revenue was \$2.05 billion; they employed 13,000 people worldwide and employed 680 people in Pocatello.

The Challenge

ON Semiconductor wanted to reduce energy costs and consumption at their Pocatello facility and lessen their impact on the environment.

They have an Environmental Sustainability program, which is led by their Environmental Health and Safety and Facilities department. “In analyzing potential projects, we decided to upgrade 11 air-handling units that supplied conditioned air to the Fab-9 area,” said Jake Evans, Pocatello facility manager at ON Semiconductor.

The Solution

ON Semiconductor installed variable frequency drives to replace inlet guide vanes. Now the amount of airflow is controlled by varying the speed of a fan rather than using a damper. There is less stress on mechanical parts and additional control over the system. This is more energy efficient because the fan performance has been improved and energy use has dramatically decreased, and this, in turn, results in lower costs.

The Savings

Energy savings for the project are just over one million kilowatt-hours (kWh) per year, which is equivalent to the planting of 191 acres of trees or reducing car emissions by 121 cars. Evans said, “With the incentive check that we received from Idaho Power, we were able to achieve less than a six-month payback on the project.”

The Outcome

Labor and materials for the project totaled \$72,409. Evans said, "It requires less energy to provide the same amount of airflow." Employees are more aware of energy savings and continue to identify new opportunities.

The Bottom Line

Idaho Power provided ON Semiconductor with a \$50,686 incentive for the variable speed drive upgrades. This allowed reduced energy consumption and monetary savings. Evans said, "ON Semiconductor continues to use Idaho Power for new energy efficiency ideas, audits, and funding. The Custom Efficiency program offered by Idaho Power enables us to turn projects that don't meet corporate payback criteria into ones that do.

This program has really helped us, and several lighting projects have been identified for future energy savings."

If you are looking for similar energy-saving success for your business, Idaho Power can help. Idaho Power offers a complete suite of energy efficiency programs for commercial and industrial businesses. The Custom Efficiency program assists large commercial and industrial customers in identifying and paying for energy efficiency improvements. Easy Upgrades offers incentives of up to \$100,000 for energy-saving retrofits within existing commercial and industrial buildings. The Building Efficiency program offers incentives of up to \$100,000 per project to offset part of additional capital expenses for more efficient lighting designs, cooling systems, controls, and

building shells in new commercial and industrial construction projects. FlexPeak Management, a demand-response program, offers commercial and industrial customers recurring payments for reducing a set amount of electricity consumption in response to Idaho Power's peak demand and other system needs.

Go to www.idahopower.com/business or call 208-388-5624 for more information on how Idaho Power can help you save energy and money.

This success story was produced in cooperation with, and approval from, Idaho Power customer ON Semiconductor.