

Custom Efficiency for Complex Projects



Plexus Corp. Manufacturing Facility

16399 North Franklin Boulevard
Nampa, ID 83687
208-898-2600

“Plexus’ manufacturing facility in Nampa has been proactive to identify and leverage cost-savings initiatives to reduce power consumption within the site correlating to lowering energy costs. In conjunction with the Idaho Power incentive program, we have been able to partner and become more energy efficient and realize sustainable cost savings for facility improvements.”

– Bill Blackburn, Plexus Facilities Manager

Plexus Corp. Partners with Idaho Power to Reduce Energy Consumption

The Business

Plexus Corp., together with its subsidiaries, provides contract electronic manufacturing services to original equipment manufacturers and other technology companies. Its services include product realization, including development and design; materials sourcing, procurement, and management; prototyping and new product introduction; testing; manufacturing; product configuration; logistics; and test/repair. The company provides contract manufacturing services on a turn-key basis, as well as on a consignment basis. Plexus Corp. serves wireline/networking, wireless infrastructure, medical, industrial/commercial, and defense/security/aerospace market sectors. It has operations in the United States, Asia,

Mexico, and Europe. The company was founded in 1979 and is headquartered in Neenah, Wisconsin.

The Challenge

The Plexus facility in Nampa had several air handlers that were very inefficient due to mechanically controlled variable-inlet vanes that open or close to adjust airflow. Fan motors within the air handler were configured to run at full load, regardless of airflow requirements of the system or inlet vane position. Power factors were in the mid 80s, providing a significant opportunity for improvement.

The Solution

The Plexus facility consulted with Siemens Building Technologies to provide an enhanced-system design that

would allow the system to remain within harmonics compliance associated with the Institute of Electrical and Electrical Engineers (IEEE) 519 standard. The scope of this project was to install 22 new, 75-horsepower (hp), variable-frequency drives (VFDs) on the existing heating, ventilating, and air conditioning (HVAC) supply and return fans. The new VFDs allow the fans to reduce system airflow more efficiently by slowing the fans down when full airflow is not needed, thereby drawing less power.

The Outcome

Twenty-two VFDs were installed at a cost of \$159,637. “We are very happy with the results, and, without the Idaho Power incentive program, the return on investment (ROI) would have been more difficult. We are pleased to

be able to partner with Idaho Power on this program.” said Bill Blackburn, Plexus facilities manager.

The Savings

The project is estimated to save 1,988,316 kilowatt-hours (kWh) per year. The energy savings is equivalent to the total average annual energy use of 150 typical Idaho homes. According to Blackburn, the project will save Plexus approximately \$90,000 annually on their power bill.

The Bottom Line

Idaho Power’s Custom Efficiency program provided Plexus with an \$111,746 incentive for the energy efficiency upgrades, which was 70 percent of the project cost—the maximum available through the Custom Efficiency program. The net

project cost to Plexus was \$47,891. “It is an excellent incentive program, and we are now looking at a lighting project for additional energy savings,” said Blackburn.

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 Company customer Plexus Corp.