

Energy Efficiency Fits Company's Image and Goals

Imaging is everything for IKONICS® Corporation. The company specializes in products and processes that create and transfer images using photochemical coatings and films, sand carving, digital texturing, photo machining and other advanced technologies. It serves a broad spectrum of domestic and international markets from two locations in Duluth, Minn.

One of those sites is a new 35,000-square-foot facility, built on a former industrial brownfield in Duluth's Morgan Park neighborhood. Completed in 2008, it is part of a three-phase expansion that eventually will move all of the company's operations onto one campus. It also reflects a corporate commitment to resource and energy efficiency with a variety of high performance features and systems.

IKONICS officials contacted Minnesota Power at a very early stage in the project to seek input on energy efficiency and identify ways to maximize the utility's PowerGrant rebate program.



Conservation improvements, such as fans with variable frequency drive motors, energy-efficient lighting, and high performance HVAC equipment, help IKONICS save thousands of dollars per year.

“IKONICS wanted everyone at the table discussing energy efficiency. Having the building owner on board was very important.”

Tanuj Gulati, Minnesota Power Energy Consultant
with Energy Management Solutions

“We had worked with Minnesota Power on a lighting project in our old building that practically paid for itself,” said Claude Piguet, executive vice president, IKONICS. “The energy savings and rebates were substantial, and we were interested in choices that would lower electric demand and usage in the new facility, as well.”

Minnesota Power funded a plan review that identified numerous energy-saving improvements. Utility representatives worked closely with the project team, including the client, architect, general contractor and electrical contractor, to determine which options made sense for the project.

Based on Minnesota Power’s input, IKONICS chose to install six-lamp, super T-8 fluorescent bulbs and fixtures throughout the building rather than metal halides. In addition, they placed windows on the south side to allow natural light and painted the ceiling white for better reflectivity. These decisions enabled the company to use half the number of lights originally planned and dramatically reduce lighting costs. Occupancy sensors also were installed so lights turn off automatically in areas that are unoccupied.

Other features designed into the building include light emitting diode (LED) exterior signage and an energy-efficient heating, ventilation and air conditioning (HVAC) system with high performance condensers, programmable setback thermostats, and variable frequency drive (VFD) motors on the air compressor and air handler fans.

The choices made by IKONICS are expected to help the company save hundreds of thousands of kilowatt hours in electricity per year, significantly reduce monthly electric demand and avoid substantial energy costs. With PowerGrant rebates of more than \$18,000, the energy-efficiency measures could pay for themselves in about four years. They also are helping the company meet its social and environmental goals.

“We strive to be a good neighbor and corporate citizen,” Piguet said. “Demonstrating respect for the environment by reclaiming a brownfield site and using resources responsibly fit that image, while helping us lower costs and stay competitive. It makes sense.”

IKONICS’ success story clearly shows that the value of businesses demonstrating the Power of One® goes beyond energy savings.

“Some of these decisions cost us more money up front, but Minnesota Power’s energy-saving calculations and payback estimates made sense. It is a lot easier to save a dollar than to make one.”

Claude Piguet, Executive Vice President, IKONICS Corp.

