

PowerGrant Profiles



Greenway Public Schools: Gym Lighting Project Scores Savings

Rural school districts in Minnesota face similar challenges of declining enrollments, reduced State funding and, often, older facilities in need of capital improvements. It is very difficult for cash-strapped school systems to invest in building upgrades when classroom programs are in jeopardy of being cut—even when the improvements would yield long-term cost savings.

Nonetheless, Jim Smith, supervisor of buildings and grounds for Greenway Public Schools in northern



New energy efficient lighting in the Greenway High School Gym offers reduced glare, instant on/off capabilities and cost savings.

Minnesota was intrigued when a vendor contacted him about new energy-efficient fluorescent lighting technology that would improve visibility in the district's high school gym while using less electricity.

"More light, less money, less energy consumed... who wouldn't be interested?" Smith recalled.

Proper lighting had long been a problem in the newly named Karen Tomberlin Gym at the Greenway High School in Coleraine. The home court of the Greenway Raiders' basketball and volleyball teams had been lit with metal halide fixtures that posed numerous problems.

"There was such a glare from the lights that players would see spots if they looked at them," Smith said, adding that his primary concerns as buildings and

grounds supervisor were related to convenience and energy usage. "Every time halides are turned off, you have to wait several minutes for them to cool and restart. We were wasting a tremendous amount of energy by keeping the gym lights on all day so people wouldn't have to wait when they wanted to use it. Plus, the halides made a distracting buzzing noise."

Smith arranged for a demonstration of the new technology that utilized high output T-8 fluorescents. After hanging and testing a fixture with six bulbs, he found they delivered more lumens at playing surface at half the wattage of the old bulbs. He was enthused, but knew that any anticipated cost savings didn't change the fact that Greenway Public Schools had no money to invest in a lighting project. That's where Minnesota Power stepped in to help.

"We had heard about these new lights and wanted a site to test their claims," said Craig Kedrowski, regional account manager for Minnesota Power. Agreeing to help fund the lighting project at Greenway High School was a win-win situation, giving Minnesota Power a pilot site to showcase high performance fluorescent technology and allowing the district to make a facility improvement it could not otherwise afford.

Projected savings were estimated at 14,170 kWh per year and 7.87 kW of demand per month, which translated to an annual cost savings of \$1,121.

PowerGrant Contact Information

For more information, please call Minnesota Power's Conservation Improvement Program toll-free at 800-228-4966 ext. 2902.

"Energizing Our Region" through Conservation Improvement

Minnesota Power's Conservation Improvement Program (CIP) works with local leaders, businesses, community groups, other energy providers and government entities to help customers reap the economic and environmental benefits of sustainable energy savings. Minnesota Power and its partners accomplish this through research, education, evaluation and direct impact initiatives.

Find out how you could get a PowerGrant

Minnesota Power awards grants to commercial/industrial customers who use innovative technologies, improve manufacturing processes, undertake renewable electric energy projects, or who need project design assistance. PowerGrant awards are available for a wide variety of projects employing diverse technologies.

Here are some examples of activities or products that could qualify for MP funding under the PowerGrant Program:

- New electro-technologies that lower energy costs per unit of production in a manufacturing process
- Innovative technologies that are new and underutilized in our regional marketplace
- Inclusion of energy-efficient options in the design phase of a project

Maximum annual grants are determined by a customer's average billing demand:

<i>Customer Demand</i>	<i>Maximum Rebate</i>
0 to 100 kW	\$10,000
101 to 300 kW	\$25,000
Over 300 kW	\$50,000

Customers may submit multiple grant requests.

Other MP Products and Services

In addition to PowerGrants, MP CIP offers commercial and industrial customers other energy efficiency products and services. These include energy audits, rebates, dual fuel, storage/off-peak services, outdoor and area lighting and economic development assistance.



Jim Smith (center), Buildings and Grounds Supervisor for Greenway Public Schools, has worked with Minnesota Power personnel, including Craig Kedrowski (left) and Dale Sundin (right), to improve energy efficiency in district facilities.

District saves \$12,978 in energy costs

MinnesotaPower coordinated the project and provided the funding. Other participants in the project were Lighting Maintenance Services, Inc., Orion Lighting, and M & M Electric. The payback on investment within 3.4 years helped make it an easy sell to the school board and administration.

"Everyone has loved the results, including the coaches, players, physical education teachers, school officials and the community," Smith said.

The gym project proved so successful that the Greenway School District has tapped Minnesota Power's Conservation Improvement Program for rebates to pursue additional lighting and heating improvements at the high school and middle school that will save the district \$12,978 per year in energy costs.

"This pilot project has helped us monitor new technology and verify manufacturers' claims of energy efficiency in a real life setting," Kedrowski said. "The knowledge we've gained has been very helpful in working with other Minnesota Power customers."

"There are many schools in our service area that could benefit from the technology already tested and proved at Greenway," agreed Dale Sundin, regional account manager for Minnesota Power. "They could save money, save energy and get better lighting."

"This has been a true success," Smith said. "The school district doesn't have any money to spare, so we have to spend wisely. The long-term savings generated by these projects can help meet needs in other areas, such as the classrooms."