POWER Helping businesses lower electric usage and demand

Members Cooperative Credit Union PROFILE

Green is a primary color at Members Cooperative Credit Union (MCCU). It goes beyond the financial institution's logo and brand identity. MCCU has adopted an approach to business that values energy efficiency and environmental sustainability.

That commitment is evident in MCCU's facilities, where extensive energy conservation projects have been completed or are planned. One clear example is the credit union's new data and call center in Duluth. The building is a model of energy efficiency with innovative lighting and a progressive heating, ventilation, and air conditioning (HVAC) system that is uncommon in this type of facility.

The system uses closed-loop heat pumps with an energy recovery unit to draw excess heat from data servers and carry it to offices, conference rooms, and other parts of the building where it is needed. The system keeps the server room cool so valuable data equipment does not overheat—without traditional rooftop HVAC units.

Building designers were skeptical when Minnesota Power energy consultant Tanuj Gulati, of Energy Management





Minnesota Power energy consultant Tanuj Gulati and MCCU's Robin Ongaro advocated for an innovative HVAC system that pumps excess heat from the server room to other parts of the call and data center.



Solutions, reviewed project plans and suggested the closed-loop heat pump system. After reviewing careful research about the technology, estimated potential energy savings, and calculated rebates, MCCU decision makers saw the value in the investment. Minnesota Power is monitoring the system's performance.

"We took a chance with an HVAC system that has not been used extensively in information technology (IT) settings, and it is working very well," said Janet Vold, vice president, IT, MCCU. "Pulling heat from the server room and reusing it makes sense from an energy-efficiency standpoint, and the building is very comfortable."

Other energy-conservation features were incorporated into the facility, as well. They include high performance 28-Watt T-8 fluorescent lighting with daylight and occupancy sensors; exterior induction lighting with timers and photo eyes; an air curtain at the front door to keep cold winter air from entering the building and to reduce conditioned air losses; low flow faucets with automatic shutoff controls; and high efficiency hand dryers.





POWER Grants

Find out how POWER Grant can help you.

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. POWER Grant is available for a wide variety of projects employing diverse technologies.

Here are some examples of activities or products that could qualify for Minnesota Power funding under the POWER Grant 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:

Customer Demand	Maximum Grant
Less than 100 kW	\$10,000
100 to 300 kW	\$25,000
Over 300 kW	\$50,000

Minnesota Power may consider higher rebate levels.

Other Minnesota Power Products and Services

In addition to POWER Grants, Minnesota Power offers commercial, industrial and agricultural 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.





MCCU Facilities and Security Coordinator Steve Schwartz completed Building Operator Certification, learning how building systems work together for maximum efficiency.



MCCU's Cloquet branch has switched to energy-efficient lighting.

Combined, these measures will conserve over 121,000 kWh of electricity per year, reduce monthly demand by nearly 21 kW, and help MCCU avoid up to \$10,000 per year in energy costs. They qualified for \$7,742 in **POWER** Grant rebates from Minnesota Power and will pay for themselves in less than 10 years. This system-based approach to energy efficiency focuses on achieving building-wide, cost-effective energy savings that not only reduce usage but also enhance productivity.

"Energy-efficient technologies exceeded our budget, but MCCU leadership agreed it was smart spending," said Robin Ongaro, vice president of marketing and business development, MCCU. She brought Minnesota Power's energy consultants into the project and has championed conservation upgrades throughout the MCCU system.

MCCU's Cloquet branch recently converted to energy-efficient lighting with lighting controls. About 350 fixtures that used to require three 32-Watt fluorescent bulbs now deliver better light using two 28-Watt bulbs—a savings of 40 Watts per fixture!

"It adds up to considerable savings, and we have brighter, whiter light," said Steve Schwartz, facilities and security coordinator, MCCU. He recently completed Building Operator Certification (BOC) training, which was sponsored through Minnesota Power's conservation program. "BOC training gave me a good overview of building systems and how they work together. It left me feeling qualified to improve the performance of our facilities."

Schwartz has already put his knowledge into practice with the lighting upgrades in Cloquet and a project that converted exterior signs at the Miller Hill branch to light emitting diodes (LEDs). These projects received additional **POWER** grant rebates, and Minnesota Power rebated Schwartz's BOC tuition.

"MCCU is showing real leadership," Gulati said. "It is rewarding to work with an organization where energy-efficiency is a high priority and that commitment is demonstrated through choices and actions."

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