

# RED WING SHOES STEPS UP ENERGY EFFICIENCY WITH ENERGY MANAGEMENT SYSTEM

CASE STUDY  
MINNESOTA

TIME AND ENERGY EFFICIENCY SAVES COMPANY MONEY IN TWO WAYS



“We expected it to be more efficient but as a bonus, it’s also more comfortable within the building. It’s nice to know we’re using a system that runs on less energy now and for years to come.”

**Mark Sweeney**,  
Corporate Facilities Manager,  
Red Wing Shoes

## Single solution for multiple goals

For over a century Red Wing Shoes in Red Wing, Minnesota, has crafted work boots for people in mining, logging, farming, construction and other industries where the need for durability and comfort were equally important.

No stranger to being on his feet all day, Mark Sweeney, Corporate Facilities Manager at Red Wing Shoes also understands having two concurrent goals. Sweeney is in charge of making sure the plant runs effectively and efficiently. So when it was time to replace the building’s automation system, he knew he had to find something that worked well and didn’t consume too much energy.

## Long list of rebates

Sweeney had worked with Xcel Energy before to get rebates for upgraded, energy efficiency equipment. The energy management system was no exception.

“It makes good business sense to incorporate energy efficiency into our equipment purchases,” says Sweeney. “We’ve upgraded several things before and we still like to work through the utility for a recommendation and rebate. It also helps the process go smoothly.”

Sweeney chose to buy an energy management system for the manufacturing plant to achieve centralized control over the HVAC system. The system helps:

- Manage all scheduling and operating functions using a single touch-screen operator display located on the display panel or at a PC workstation.
- Monitor and control the system remotely from almost anywhere using the PC software and a phone line or the LAN/WAN.
- Increase energy efficiency by providing free cooling with outside air.
- Create custom alarms and send them to remote locations with email and pagers.
- Save on time and materials: It uses less wire and only a thermistor temperature sensor in each space, rather than a full programmable thermostat.
- Program simple routines to control binary outputs for more flexibility.

## PROJECT SNAPSHOT

Project	Installed new EMS controls
Total cost	\$39,700
Incremental cost	\$38,700
Xcel Energy rebate	\$14,000
Cost after rebate	\$24,700
Estimated annual electricity savings	\$5,000/87,693 kWh
Estimated annual natural gas savings	\$12,700/16,410 therms
Payback period	1.3 years

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- Create custom trends to track various aspects of building operation, and generate reports.
- Monitor power consumption by using the pulse-meter input and automatically generate a power consumption report.

“The remote access function of this system is great for several reasons,” explains Lance Duellman, Xcel Energy account manager. “When working at another facility or if an issue arises after hours, the system can be accessed from anywhere to monitor equipment, make scheduling adjustments or temperature changes without actually going to the facility. It’s more efficient from both time and energy standpoints, saving the company money in two ways.”

**Long-term savings**

Xcel Energy provided a rebate of over \$14,000, which was 37 percent of the total project cost. The new system is expected to save Red Wing Shoes more than \$30,000 annually, with an estimated payback of 1.3 years.



For more about Xcel Energy’s energy efficiency programs and rebate offerings, please visit [xcelenergy.com/EfficiencyControls](https://www.xcelenergy.com/EfficiencyControls).

