

Businesses demonstrating the Power of One®—with effective energy choices

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Spirit Mountain Chalet Demonstrates Peak Performance

The new Grand Chalet at Spirit Mountain is a striking addition to the popular ski area and four-season recreation center, from its contemporary wood-frame design and inviting decor to its spectacular view of the slopes. Located at the base of Spirit Mountain, on Grand Avenue in Duluth, the 10,650-square-foot chalet also exemplifies peak performance in energy efficiency.

“We wanted a building that was both attractive and energy efficient,” said Renee Mattson, executive director, Spirit Mountain. “Efficiency was a huge factor for us.”

Accomplishing that vision was an uphill battle at times as Spirit Mountain officials and project contractors labored to find products, equipment and systems that fit the building design, met requirements for how space would be used, and achieved energy-saving objectives—all while staying within budget.

“Having a neutral third party like Minnesota Power help us sort through the options was hugely valuable to us. It is hard to ask questions when you don’t know what questions to ask.”

*Renee Mattson
Executive Director, Spirit Mountain*

“One of the things we learned early on was the term ‘value engineering,’” said Denny Monson, facilities director, Spirit Mountain. “If we didn’t want to drop nice features, even in terms of energy efficiency, we had to become smarter and do our due diligence.”

Minnesota Power’s Power of One® Business energy conservation program and its team of consultants were powerful partners in this effort. They reviewed design documents, provided product information, calculated potential energy and cost savings, and identified rebate incentives that would give Spirit Mountain the most for its money.



Stylish, energy-efficient lighting adds elegance and dramatic flair, while saving energy and money.



The new Grand Chalet at the foot of Spirit Mountain is the pinnacle of energy efficiency.



ENERGY STAR®-rated appliances, energy-efficient exterior wall packs, and a demand control kitchen ventilation system help reduce energy usage and demand at the new chalet.

For more information:

Take the first steps toward managing energy use and costs at your business. Learn more about Power of One®, Minnesota Power's commercial, agricultural and industrial energy conservation program, and fill out your free online pre-application form.

Phone: 218-355-2909
www.mnpower.com/onebusiness

"It seems counterintuitive to call a power company that wants to sell electricity and ask for ways to save it, but Minnesota Power is really there to help."

*Denny Monson
 Facilities Director, Spirit Mountain*

Minnesota Power's expertise led Spirit Mountain officials and their design/build team to reexamine lighting plans and make more effective choices. It resulted in a mix of energy-efficient light emitting diode (LED) and compact fluorescent light (CFL) fixtures with lighting controls that fit the project and its budget.

"This is not just a ski chalet, it is a year-round banquet facility for wedding receptions and other corporate and community events," Mattson said. "We were able to scale back lighting in the rental area and put that money into fixtures we really wanted in parts of the chalet that needed more ambience."

Officials also chose to install a high performance air conditioning system, demand-control kitchen ventilation with variable frequency drives, and ENERGY STAR® appliances. A new ski lift with an energy-efficient motor and variable frequency drive was erected to serve the Grand Chalet, replacing an old, less efficient lift. All of these decisions combined qualified for nearly \$19,000 in Power of One® Business rebates. More importantly, they are helping Spirit Mountain save approximately 181,000 kWh per year in electricity, reducing both utility and maintenance costs.



(l to r) Spirit Mountain Executive Director Renee Mattson and Facilities Director Denny Monson meet with Tim Gallagher, Power of One® Business program manager for Minnesota Power.

Spirit Mountain is an energy-intensive business with bright outdoor lighting, snowmaking machines, ski lifts, two year-round chalets and the Spirit Mountain Adventure Park, which includes an alpine coaster, zip line and mini golf course. Minnesota Power has

assisted the growing recreational area with many projects over the years, providing technical assistance and rebates for energy-efficient snowmaking equipment, lighting upgrades, water heaters, HVAC equipment and variable frequency drives on ski lift, coaster and zip line motors. Cost savings from energy conservation improvements can be reinvested in new projects as Spirit Mountain looks to the future.

"We still have outdated equipment on site that is costing us thousands of dollars in excess energy costs," Mattson said. "At some point, we will have to change out hill lighting."

For now, the new Grand Chalet is exceeding expectations for business and strengthening Spirit Mountain's connections with Duluth, a high priority in the organization's strategic plan.

"This corridor is the next place for major development in Duluth, and we were one of the first projects," Mattson said. "It is very exciting, and this building is everything we hoped it would be."