

one business profile



DECC

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

February 2014



A major project is upgrading parking ramp lighting at the DECC from high pressure sodium to energy-efficient LED.

Energy Savings on DECC

The Duluth Entertainment Convention Center (DECC) draws hundreds of events each year, from private receptions and dances to high profile concerts, Duluth Superior Symphony Orchestra and Minnesota Ballet performances, UMD Bulldog Hockey games and large national conventions.

One event held each February is the Duluth Energy Design Conference & Expo, hosted by Minnesota Power. This annual gathering attracts up to 1,000 construction professionals, vendors and others who want to learn the latest in energy-efficient building techniques and technologies.

The DECC is a particularly fitting venue because it is a model of high performance. Its Amsoil Arena, which opened in December 2010, was among the first sports facilities of its kind to achieve Leadership in Energy and Environmental Design (LEED) Silver certification. DECC officials and staff continually look for ways to reduce waste, conserve resources and save energy throughout the nearly 1-million-square-foot complex. Effectively managing the use of electricity is a major focus.

“Our annual electric bill approaches \$1 million, so it is a significant part of our budget. Saving energy is a good business decision because it reduces costs, but it also is important to our environmental mission. It is the right thing to do.”

Dan Russell, Executive Director, DECC

Minnesota Power's Power of One® Business energy conservation team is a key partner in this effort, providing the DECC with design assistance, product information, energy- and cost-savings calculations and rebate incentives to make energy-saving choices that are the right fit for their operations. For example, Minnesota Power helped with lighting, HVAC and arena floor design for the Amsoil Arena. One early recommendation was that plans be altered to include higher output, energy-efficient lighting fixtures and lighting controls. The lighting decisions alone have helped the DECC avoid more than 130 kW of increased monthly electric demand and is saving nearly 790,000 kWh of electricity per year.

“We are just finishing up the parking ramp lighting project, and it has been great to work with Minnesota Power. They are knowledgeable, responsive and make the incentive application process seamless.”

*Wade Abrahamson
Chief Engineer
DECC*



DECC officials view energy efficiency as both a good business decision and the right thing to do. The facility has a culture of environmental consciousness and sustainability.



(top) LEDs illuminate hallways that connect DECC facilities.

(bottom l to r) Tanuj Gulati, of Energy Insight, Inc., and Craig Kedrowski, of Minnesota Power, talk with Wade Abrahamson, chief engineer, DECC, about ways to manage energy use.

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

The DECC has completed many other projects in recent years with technical and design assistance and rebates from Minnesota Power. They include converting dozens of lighting fixtures from 100-Watt metal halides to 10.5-Watt light emitting diodes (LEDs); upgrading kitchen and office lighting from T-12 to T-8 fluorescents with occupancy sensors; installing variable frequency drive (VFD) motors on the supply fan for the facility's air handling unit and hot water circulation pump; upgrading to a new cooling tower with VFD motors; and converting incandescent lighting in the convention center to LED. The DECC currently is completing a major parking ramp project, replacing nearly 240 high pressure sodium lights with LEDs and lighting controls.

These combined upgrades have helped the DECC reduce electric demand by nearly 190 kW per month, save more than 1,300,000 kWh of electricity per year and cut annual energy and maintenance costs by more than \$50,000. They also qualified for nearly \$60,000 in Power of One® Business rebates from Minnesota Power.

"Our customers' success is our success," said Craig Kedrowski, energy efficiency analyst, Minnesota Power. "DECC officials continually seek ways to improve energy performance. Through years of collaboration, they recognize Minnesota Power's ongoing commitment to solutions and the benefits of involving our team very early in projects."

"The people we work with at the DECC see the value," said Tanuj Gulati, senior energy engineer, Energy Insight, Inc., Minnesota Power's energy conservation consultant. "They ask us to explore projects, and we come back with detailed spreadsheets and potential designs so they can see if the numbers make sense."

"We are just finishing up the parking ramp lighting project, and it has been great to work with Minnesota Power," said Wade Abrahamson, chief engineer, DECC. "They are knowledgeable, responsive and make the incentive application process seamless."

The DECC has earned a reputation for its commitment to energy performance. In conjunction with the Amsoil Arena expansion, Minnesota Power funded a commissioning and retro-commissioning study of the entire facility to improve energy performance over time. Consultants and personnel invested hundreds of hours documenting and verifying that equipment, systems and processes in the growing complex were performing at optimal levels.

"I was very proud of the conclusions, especially about our staff," said Dan Russell, executive director, DECC. "The study found that our buildings and equipment are very well maintained and that we have an engineering staff that gets it. A lot of facilities don't."

The Power of One® Business energy conservation team has a powerful impact. It helps customers better understand how they use energy by providing tools and resources so they can make informed energy-saving choices that are the right fit for their home, business or community.



DECC Chief Engineer Wade Abrahamson with heating and cooling controls.