

2010 our clean energy future | Minnesota, North Dakota, South Dakota

At Xcel Energy, we remain committed to our environmental leadership strategy. We are pursuing a variety of clean energy initiatives, including emissions-reductions, renewable resources, expanded energy efficiency programs and new technologies. Our customers, communities, and employees expect us to take action. We know from past experience that taking early action and voluntarily reducing emissions is a better way to manage costs, which ultimately benefits everyone.

CARBON DIOXIDE EMISSIONS




In 2009, 47 percent of our electricity in the Upper Midwest was generated by carbon free sources and we have a long-range plan to further reduce emissions. Our resource plan, together with our completed our Metro Emissions Reduction Project (MERP) and other environmental initiatives, will lead to a reduction in CO₂ levels by 22 percent from 2005 levels by 2020.

- MERP, which was completed recently, reduced CO₂ emissions by nearly 3.5 million tons per year.
- Our partnership with Manitoba Hydro provides for the purchase of 850 megawatts of emission-free, renewable power ensuring the reliable flow of electricity to our customers across the Upper Midwest, and helps keep our rates reasonable and our environmental performance high.
- Our nuclear generation plants at Red Wing and Monticello provide safe, reliable, low-cost, carbon-free power for our customers in the Upper Midwest. We are working to continue their operation and increase their capacity to help meet our customers' energy needs.
- We continue to expand our wind ownership through various projects. This includes the 201-MW Nobels Wind Project in Minnesota, which is anticipated to be completed by the end of 2010. In North Dakota, we are working on the 150-MW Merricourt Project.



RENEWABLE RESOURCE DEVELOPMENT

The Renewable Development Fund promotes the start-up, expansion and attraction of renewable energy projects. It also stimulates research and development into renewable energy technologies. Through 2009, more than 70 projects have received funding via three funding cycles. For more information, visit www.xcelenergy.com/RDF.

RENEWABLE DEVELOPMENT FUND PROJECTS		
SOLAR GEOTHERMAL	SOLAR PV RESEARCH	WIND
 <p>MERRICK, INC. – 100 KW PHOTOVOLTAIC INSTALLATION, VADNAIS HEIGHTS, MINN.</p> <p>This solar geothermal project is a model example of using renewable energy for geothermal heating and cooling to provide 100 percent of the heating and cooling needs of their facility. The solar array will reduce Merrick’s use of non-renewable energy by at least 33 percent.</p>	 <p>NATIONAL RENEWABLE ENERGY LABORATORY AND THE UNIVERSITY OF MINNESOTA</p> <p>The National Renewable Energy Laboratory and the University of Minnesota are developing an atmospheric and direct write ink based approach to thin film solar cells. This project should lead to a novel, low cost, scalable production technique for thin film solar cells.</p>	 <p>WIND TO BATTERY – LUVERNE, MINN.</p> <p>We are testing a cutting-edge technology to store wind energy into batteries with this pilot project. Fully charged, the battery could power about 500 homes for more than seven hours.</p>

ADVANCED TECHNOLOGY

Because we don’t always know when and how strongly the wind will blow, we are working with the National Center for Atmospheric Research to developed a state-of-the-art wind energy forecasting system. The forecasts help operators make critical, cost-saving decisions about powering down traditional coal- and gas-fired power plants when sufficient winds are predicted, enabling the increased use of alternative energy.

At our Sherburne County Generating Station in Becker we are reducing mercury emissions by 90 percent on its largest unit, and propose installing similar technology to the remaining two units by 2014. Scrubbers on the two units currently reduce mercury emissions by 40 percent from coal.

To encourage the growth of solar energy on our system, we offer our customers incentives to install solar panels on top of their homes and businesses. In 2010, we introduced Solar*Rewards in Minnesota. The program is designed to ensure a variety of systems are built, from small residential systems to large commercial systems.

ENERGY EFFICIENCY

What began as a simple idea more than 20 years ago – “Use Less, Save More” – remains a cornerstone of our environmental efforts. Our breadth of nearly 50, nationally recognized energy efficiency programs includes opportunities for equipment rebates and study funding, as well as tools and resources to help our residential and business customers save energy and money.

Customers in our Upper Midwest service territory continue to embrace energy efficiency programs and practices. Since 2009, their participation has helped us avoid building nearly eight medium-sized power plants, the equivalent of removing 4 million metric tons of CO₂.

BUSINESS INNOVATION

Xcel Energy and several public, private and nonprofit organizations are partnering on the Energy Innovation Corridor (EIC), a clean energy and transportation model that extends along the proposed 11-mile Central Corridor light rail transit project route in the Twin Cities. Every member of the community along the EIC will have the opportunity to experience the future of renewable energy, advance energy-efficiency programs, electric transportation and smart-energy technologies.

For more information, visit energyinnovationcorridor.com.



2009 ENERGY SAVED AS A RESULT OF OUR CUSTOMERS’ ENERGY CONSERVATION EFFORTS:

ELECTRICITY	3.4 million kWh
NATURAL GAS	665 thousand MCF

THIS SAVINGS IS ENOUGH TO SATISFY THE ELECTRICITY NEEDS OF MORE THAN 42,000 HOMES AND NATURAL GAS NEEDS OF ABOUT 7,500 HOMES FOR ONE YEAR.