GREAT RIVER ENERGY®

A Touchstone Energy® Cooperative

RENEWABLE ENERGY: Great River Energy's Initiatives for a Sustainable Environment

Company Profile

Great River Energy is Minnesota's second largest power supplier, providing wholesale electric service to 28 distribution co-ops serving approximately 600,000 members. We own more than 4,500 miles of transmission lines covering about 60 percent of Minnesota and extending into Wisconsin. Our generation system, comprised of both baseload and peaking plants, produces 2,500 megawatts of electricity using coal, refuse-derived fuel, natural gas, oil, wind and hydropower.

Our Commitment to Environmental Leadership

Great River Energy values its reputation as an environmental leader among utilities. We have made a strategic commitment to environmental stewardship. We are determined to act on the evidence that climate change is real by pursuing initiatives that support a sustainable environment. This commitment is based on our core operating principle to make the right environmental choices within our technological and financial capabilities.

Our Position on Renewable Energy

Great River Energy is convinced that pursuing renewable energy is the right thing to do, so we have committed ourselves to deriving 25 percent of our electric energy from renewable sources by the year 2025. By making use of renewable energy tax credits, we can reduce environmental emissions and still keep our energy product competitively priced and affordable for our customers. In addition to our renewable initiatives, we will continue existing programs to prevent pollution, recycle and minimize waste, and employ new, environmentally sound technologies.

Our Wind Energy Initiatives

About 4 percent of Great River Energy's total energy production comes from renewable wind energy. We are on course to meet the state's proposed 25 percent renewable energy standard by 2025. Here are some of the specific wind energy initiatives we're pursuing:

- **The Trimont Area Wind Farm** produces up to 100 megawatts of clean, renewable energy. Great River Energy partnered with 43 landowners in the area and PPM Energy, a Portland-based company, to develop the wind farm, which consists of 67 wind turbines producing enough electricity to serve the annual energy needs of nearly 29,000 Minnesota homes.

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- **A Mower County, Minnesota, wind project** will provide another 100 megawatts of wind energy for Great River Energy members before the end of 2007. Great River Energy and Horizon Wind Energy signed an agreement in September 2006.

- **Three smaller wind projects** in southern Minnesota supply another 18 megawatts of wind power to Great River Energy.

- **The Wellspring Renewable Wind Energy® Program** allows consumers to purchase wind energy from our member co-ops in 100-kilowatt-hour blocks for a slight added cost. At last count, more than 4,300 consumers have taken advantage of this program.

Our Biomass Initiatives

Biomass energy is created when organic plant or animal waste materials are burned in order to generate electricity. Great River Energy is obtaining renewable biomass energy from a number of regional sources:

- **Great River Energy's Elk River Station** uses refuse-derived fuel (RDF) to generate electricity. The power plant burns between 250,000 and 300,000 tons of processed municipal waste annually, significantly reducing the amount of waste deposited in the landfill while generating about 200,000 megawatt-hours of electricity and meeting strict environmental limits. This also reduces the amount of methane that would be produced at landfills, an important environmental benefit, since methane's global warming potential is 21 times higher than carbon dioxide.

- **The Elk River Municipal Utility Landfill** produces methane gas as the deposited waste decomposes. Great River Energy purchased approximately 20,000 megawatt-hours of electricity generated from Elk River's methane gas collection system.

- **Anaerobic Digesters** capture methane from cow manure to generate electricity. Great River Energy purchases the output from two anaerobic digesters located at dairy farms in Princeton and St. Peter.

Our Hydro Power Initiatives

Hydroelectric power, or "hydro," is derived from harnessing the energy produced by moving or falling water. It produces no emissions or other waste. Great River Energy purchases hydroelectric power from Manitoba Hydro and from the Western Area Power Administration. Although hydropower is certainly renewable, some states including Minnesota do not include large hydropower projects in their legal definitions of renewable energy.