

# Renewable Electricity Fact Sheet

Renewable electricity includes power generated from wind, biomass, solar and geothermal energy sources, new and existing hydroelectric facilities, and from hydrogen produced from the preceding renewable energy sources.

#### Measurable Goals

- By 2015: 10 percent of electricity consumed in the region will be from renewable resources.
- By 2020: 20 percent of electricity consumed in the region will be from renewable resources.
- By 2025: 25 percent of electricity consumed in the region will be from renewable resources.
- By 2030: 30 percent of electricity consumed in the region will be from renewable resources.

## Objectives

- Maximize cost-effective renewable electricity production in the region and its integration on the grid.
- Make efficient use of the existing transmission infrastructure and develop new infrastructure, as necessary, to accommodate the region's economical renewable electricity.
- Ensure retention of local economic benefits from wind and other renewable power development.
- Expand the region's domestic production of wind turbines, towers and blades, solar technologies, and other renewable-energy technologies to provide high-paying manufacturing and operation support jobs.

## Policy Options

- Expand collaborative regional transmission planning and siting to enable future development of renewable electricity generation.
- Incorporate transmission development requirements into existing state renewable energy objectives and standards.
- Pursue a multi-state transmission initiative to facilitate construction and delivery to market of a large amount of new renewable electricity generation, together with power from other lower-carbon generation facilities.
- Develop and implement comprehensive siting principles and policies for wind farms to encourage orderly development of the resource.
- Develop economic incentives and workforce development policies to attract renewable energy component manufacturers and service
  providers to the region.

### **Current Initiatives**

- Xcel Energy plans to deploy its wind battery storage system in Minnesota in 2008. The technology will allow the storage of wind energy in batteries so it can be moved effectively to the electric grid when needed. The project was tested for the past several months in Luverne, Minn., and will use 20 50kW sodium-sulfur battery modules that, in all, can store 7.2MWh of energy. Similar batteries are already in use in Japan and in a few U.S. applications.
- Dominion and BP Alternative Energy began construction of the Fowler Ridge Wind Farm in Benton County, Ind. When the wind farm
  becomes fully operational, it will become one of the largest wind power facilities in the world, generating enough electricity to provide
  power to more than 200,000 homes. The first phase is expected to be operational by the end of 2008, and the second phase is slated
  for construction by the beginning of 2009.