

5TH
in the nation

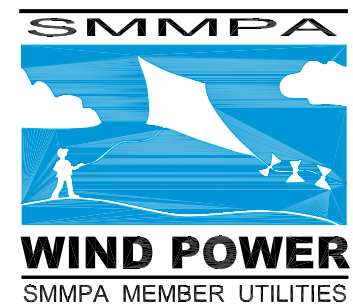
From the purchase of all power generated from the Wapsipinicon Wind Farm and its wind turbines, SMMPA supplies the 5th largest amount of wind power of all municipally-owned utilities in the nation according to the American Wind Energy Association's 2008 Annual Wind Industry Report.



Wapsipinicon Wind Farm

13.5% of the energy SMMPA supplies to its 18 Member municipally-owned electric utilities comes from renewable and carbon-free sources

- Comprised of 9,772 acres near Dexter, MN - four miles long (North to South)
- Area per turbine is about 145 acres; more than adequate to ensure minimum interference to wind flow
- 67 wind turbines produce about 352,000 megawatt hours, enough for the annual needs of almost 37,000 homes
- Built and owned by enXco, a world leader in renewable energy
- SMMPA is purchasing all power generated over 20 years
- Officially on-line and fully operational on February 20, 2009
- Built in less than 3 months
- Staffed by 8 full time employees
- Remotely monitored and controlled 24/7



Wind Turbine Specifications

- GE 1.5 MW SLE (rated output of 1,500 kW)
- Cost of about \$3 million each
- Hub height is 80 meters (262 feet)
- Total turbine height to the tip of the highest blade is 117m (384 ft), as high as a 27-story building.
- Approximately 8,000 parts
- Weights: tower 250,000 lbs; nacelle and rotor 120,000 lbs
- Rotor diameter is 77 meters (253 feet)
- Blade length is 37 meters (122 feet)
- Variable rotor speed – 10 to 20 rpm (one revolution every 3 to 5 seconds)
- Swept area is 4657m² (77% of the area of a football field)
- Rated at 1,500 kilowatts
- Produces about 5,256,000 kWh annually, enough to serve the needs of 550 homes.
- Begins generating power from 8 mph wind, shut down at 56 mph
- Life expectancy of 20 years
- Each individual wind turbine foundation consists of an octagonal spread footing 48 ft. in diameter and 7 ft. deep. 280 cubic yards of concrete were used per turbine foundation. For the 67 turbine foundations 12,400 total cubic yards in 1,240 truckloads were used.
- 12,000+ of this model turbine operating in 19 countries with 170 million+ operating hours (March 2009)
- GE wind manufacturing and assembly facilities in Germany, Spain, China, USA
- For more information on the wind turbines visit www.gewindenergy.com



For more information on SMMPA wind power visit smmpa.com