

Located at Wastewater Treatment Plant

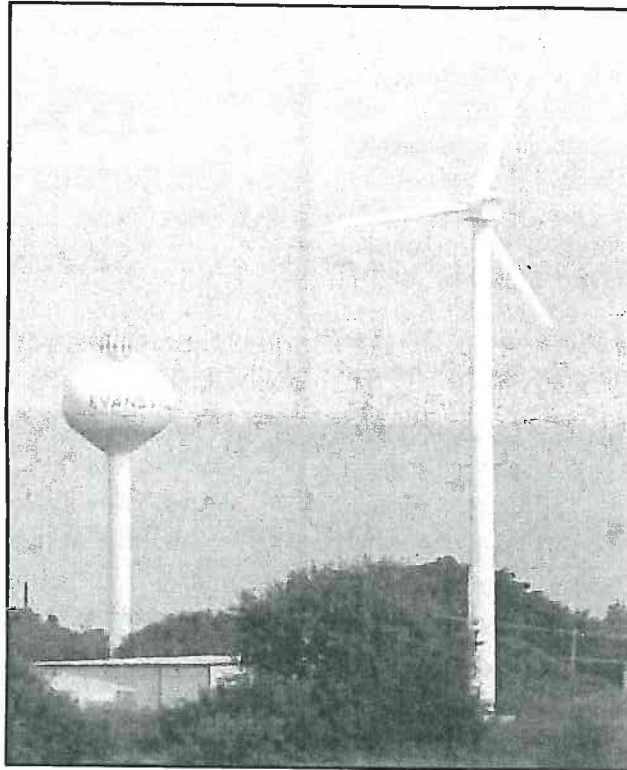
Evansville Installs 100 kW Wind Turbine

The City of Evansville, just south of Madison, has installed a 100 kW wind turbine at its Wastewater Treatment Plant and the unit became operational last month.

According to Evansville Mayor Sandy Decker, the City "has a history of promoting alternative energy. Baker Manufacturing Company, our oldest manufacturer, produced windmills from 1874 until about 1950. Our community celebrates windmills. As our country and state focus on clean energy, it is natural for Evansville to include wind power in our community's energy independence plan."

After a competitive bid process, the City selected a "Northwind 100" turbine, produced by Northern Power Systems (<http://www.northernpower.com/>) and hired H&H Solar Energy Services (<http://www.hhgroupholdings.com/>) in Madison to install the unit. This is the same unit that is installed at Wausau East High School in central Wisconsin and at Blackhawk Technical College in Fort Atkinson in southeast Wisconsin.

The total project cost was \$594,000. The City worked with its power supplier, WPPI Energy, to secure a \$257,400 power supply payment based on thirteen-years of predicted output from the system as well as a \$25,000 WPPI Energy renewable energy grant. Focus on Energy provided an incentive of \$150,000 through an implementation grant, based on



the size, energy production and cost of the turbine, and the City paid for the remaining \$161,600.

In terms of the turbine's specifications, the tower sits on a 15 foot deep rebar reinforced concrete foundation. The tower is composed of three tubular segments weighing a total of 30,000 pounds and stands 120 feet above the ground. The three blades each measure 37 feet for a total swept area of 217 square feet. The nacelle and rotor weigh in at 16,100 pounds. Evansville selected the Northwind 100 based in part on the low cut-in speed (7.8 mph) and the high cut-out speed (56 mph), which will help optimize the unit's production of electricity, and

the design life which is 20 years. The turbine is expected to produce as much as 125,000 kilowatt hours annually, enough for the equivalent usage of 12 to 15 average homes.

"Energy policy is currently a hot topic; national debate rages over global warming and climate change", concluded Mayor Decker. "In our community, citizen awareness of energy issues is high. We have many energy efficiency, conservation, and renewable projects completed or underway. The wind turbine visually represents Evansville's commitment to energy independence. Personally, I am gratified that our community's youth see that we are actively working to improve where we live."



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