



Hunt Utilities Group LLC (HUG) Wind Turbine

WERC was successful in helping the Hunt Utilities Group, LLC (HUG) obtain a \$20,000 grant from Minnesota Power to put up a small wind turbine on the HUG campus by Pine River, Minnesota. The wind turbine is a 20-kilowatt Jacobs's system with a 31-foot rotor on a 120-foot tower, which will produce enough electricity to power a small farm (ranges from 12,000 to 50,000 kilowatt hours per year). The total installed cost for this system is \$55,000. This renewable energy system will pay for itself in less than ten years and produce electricity for HUG for many decades, as proven by the Jacobs Wind Turbine Systems since 1930.

Hunt Utilities Group, LLC (HUG) is a for profit organization started by eco-minded philanthropic entrepreneurs for the purpose of exploring and developing systems that support ecological living. Our current and planned projects include: Hug Net Straw bale construction, a research campus, buildings that heat themselves (even in Minnesota), sewage reprocessing and reuse, alternative energy, and related business incubation. HUG kicked off public education programs on Wind Power via the new wind turbine during the 2006 Cass County Fair, which took place just across the road from HUG. This will be the first time the Hunt Utility Group will have a permanent wind turbine on their grounds. The turbine will feature educational signage on its base explaining the basics of the technology, the costs of getting electricity from the wind, the financial benefits for the homeowner or farmer and the pollution reduction benefits for all.

The purpose of the HUG research campus is to help develop and teach ways that we can live more comfortably with the Earth. See www.hugllc.com for more.



The tower assembly has just begun. In the foreground on the trailer is the turbine/generator waiting to be put into place when the tower is nearly complete.



Foreground is the start of the 120-foot tower that will hold the 20-kilowatt Jacobs wind turbine. Back ground is the small wind turbine test pole with 3 turbines and a weather station mounted on it. Behind that is the HUG campus main office, made from straw bales and earth plaster.



Pictured here is David Winkelman of Winkelman's Environmentally Responsible Construction (WERC) holding the tail vane section of the wind turbine with Bob McLean of HUG observing the giant "erector set" project taking shape



This picture shows the tip-up of the 120-foot Jacobs wind turbine tower.



Here the tower is almost in place.



Shown here is the Jacobs wind turbine-producing energy. In the foreground is the small wind turbine test pole, which has two experimental vertical wind turbines that seem to always be turning and flashing in the sun. It has a 0.5-kilowatt bladed turbine for comparison. It has a weather station that measures wind speed and direction and rain fall. It is loaded with instrumentation, measuring all the performance details and making the data available on the web.