

Blackfeet Community College wind turbine on line

Story and photos
by Roy Nollkamper

With the installation of the 10 kiloWatt Bergey Wind Turbine complete, students at the Blackfeet Community College will now begin to compile and study the data produced by the project.

The turbine, acquired by a grant written by Ron Ladue through the college, will also provide power for approximately 50 percent of the load at the vocational center where the generator is located. Any excess production will be passed onto Glacier Electric's system

Continued on page 6



The new Bergey 10 kW wind turbine is located just West of the Blackfeet Community College vocational training center. While it doesn't appear very tall, it is actually 85 feet high. There is also wind monitoring equipment at the 60 foot level.

turbine

Continued from page 5

and will be credited to the college vocational facility according to a net metering agreement.

“Our students will gain first-hand knowledge about alternate forms of generation and how it may apply to other locations on the Blackfeet Reservation,” said Terry Tatsey who has been directing the project for the past several months. The data will eventually be made available to anyone interested through the BCC website. It will also be used by the National Weather Service in Great Falls to help their forecasters.

Glacier Electric now has nearly 125 kiloWatts of windpower connected to its grid. The co-op is also monitoring the effect it may have on its’ distribution system. According to General Manager Jasen Bronec, “Glacier Electric is interested in wind generation, but we also want to be certain it doesn’t have any negative affect on our distribution system. We appreciate the opportunity to study the site and offer any help we can to the college for the project.”

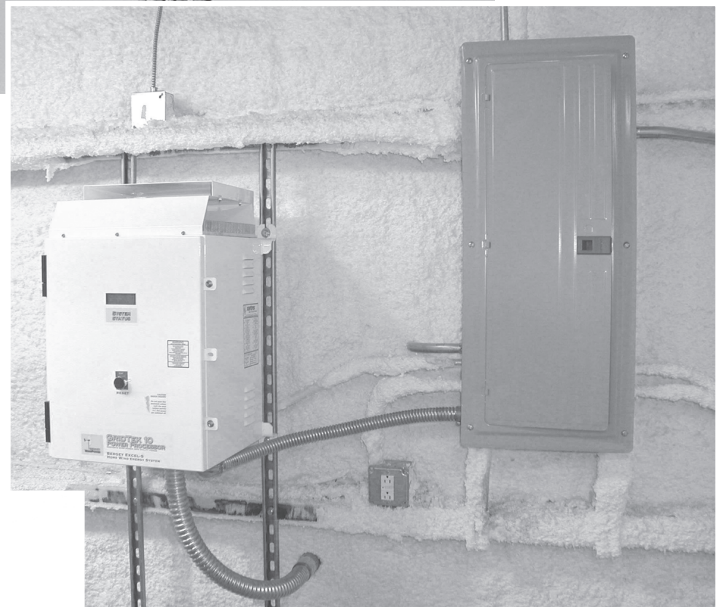
Below: Weather data is collected at the site by this MetNet system and is monitored by BCC students. They are currently building a database to be used for future evaluation of the system.



Right: Terry Tatsey, who is directing the project, and can visually monitor the site from his office window.



The blade swing on the generator is 25 feet. Generation starts when wind speeds exceed 8 mph, and will generate over 10 kW at 36 mph. Blade speed at max production is 310 rpm, and it is designed to withstand winds up to 150 mph.



Above: At the left is the inverter that changes the power from dc to ac which is then fed into the building's breaker panel on the right. A meter has been installed between the inverter and the panel to monitor actual production of the system as it feeds the building.

