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## Dedication of Parkview wind turbine set for Friday, Sept. 14

For **Dr. John Patten** one answer to green energy is blowing in the wind. In July, the manufacturing engineering department chair funded a wind turbine located on the WMU Parkview campus along US 131 near the sign identifying the College of Engineering and Applied Sciences. He used overhead and residual funds from his other research grants and contracts. "That turbine is providing free green electricity for WMU," he said.

At 2 p.m. on Friday, Sept. 14, the 45-foot-tall wind generator will be dedicated. According to **CEAS Dean Tim Greene**, who is coordinating the event, **WMU President John Dunn** and **U.S. Congressman Fred Upton** will also attend the ceremony. "It will be held at the wind turbine site, and everyone is invited," Greene said. A reception follows in the Parkview entry area.

The 45-foot tall, 240-volt AC grid-connected system was installed in two days by Bauer Power of Wayland MI. The Skystream 3.7 from Southwest Wind is basically a 2 kW "plug and play" unit designed to plug into the electrical grid. With composite plastic blades and a football-size hub containing all the necessary electrical, mechanical, and computer equipment, the generator requires no batteries. It also has low maintenance requirements, and its life expectancy is 20 to 30 years. "You basically plug it in, turn it on, and let it run," said Dr. John Patten. Underground wires connect the turbine to the WMU Parkview Campus



Patten, who belongs to six statewide initiatives related to wind energy issues, has written many research proposals to bring in larger generators, but he was eager to do something more immediate. "Meetings and organizations are good for long-range projects, but I had to do something to make me feel good, and one day it dawned on me that I could do something small on my own," he said. "Putting in that generator made me feel good, and it allowed me to walk the talk."



**Dr. John Patten** with a digital wireless remote interface meter that shows the number of blade revolutions per minute (RPM), the power output (kW), and the accumulated power (kWh) data being directly sent to the Parkview Campus by the new CEAS wind turbine.



The blades on the new Parkview campus wind turbine - seen here from across US 131 - spin about 50 percent of the time. To get them started requires a wind of about 8 mph. The turbine rotates like a wind vane to point into the wind.

It took Patten about two months to get the project approved. "I wanted more than just required approvals," he said. "I wanted buy-in from everyone in the area."

Patten credited several for contributing to the project. **Mark Bauer** and a crew from Bauer Power in Wayland installed the generator, and **Drew Richards**, a student in the manufacturing program at Lake Superior State College, assisted in the project. Supporters from WMU's physical plant were **Conn Macomber**, renovation services; **Dan Brimmer**, an electrical engineer; and **Dale Sheppard**, from the electrical shop.

In addition to providing energy, the new turbine can also be used for data collection and for some applied research. Patten noted that students could record and analyze the data as part of future projects. "With at least a year's data, we can draw conclusions and then put the results on the computer for people to examine," he said.

### Parkview wind turbine dedication...

Friday, Sept. 14, 2007, at 2 p.m.

Meet at the turbine

Everyone welcome!

Although not part of Patten's present work in manufacturing engineering, renewable energy has always been a strong personal interest. Before coming to WMU, he put up a solar lab and built an electric car that was powered by the solar energy collected in the lab. "I drove that car for eight years," he said.

When Patten builds his next house, he plans to use solar and wind energy. "It should be enough to supply all our power needs," he said. "When it's hot, the sun is usually shining so the solar panels kick in, and when it's cloudy, that's usually when fronts are moving in and out, and that tends to be when you get a lot of wind."

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Send your thoughts on this article or your suggestions for future articles to the editor at [jerrie.fiala@wmich.edu](mailto:jerrie.fiala@wmich.edu) Thank you.