

Energy changes are in the wind

By Ashley Box and Jeff Brod

On Sept. 18, the Michigan legislature sent the state's first Renewable Portfolio Standard to the Governor's desk for her signature. The package mandated that "10 percent of the state's energy come from renewable sources by 2015."

The bill provides incentives and taxpayer funding for research and development of alternative energy sources.

Only days before, two windmills owned by Heritage Sustainable Energy had been erected. The passage of that bill opened the doors to expand wind development further in northern Michigan.

Stoney Corners' Windfarm Site

The two wind turbines turning above Stoney Corners represent a success for Heritage Renewable Energy, for McBain and for Michigan, according to Rick Wilson, Project Manager for Heritage.

While the turbines were constructed in 2008, Heritage began its development plans for the Stony Corners' site four years ago.

After studying early wind-energy maps, southwest Missaukee County appeared to be a probable location for a wind farm, explained Wilson.

"We conducted wind-energy testing and evaluation out there for four years and found that the wind resource was suitable for development," Wilson said.

The area was also appealing for its open, accessible terrain and access to a high voltage transmission line.

The final key element was community support.

"We were welcomed with open arms," Wilson explained. As a result, a relatively contiguous series of land leases was agreed upon, and development could be pursued.

The attention of residents for miles around was directed to McBain as large sections of windmills were driven through downtown Cadillac, and one of the largest cranes in North America was commissioned to complete the assembly.

"I think it was exciting for the community to see these huge windmills installed in their back yards," Wilson said.

After construction, everything has been running smoothly, Wilson said.

"The community's attitude hasn't changed. In fact, it's actually increased (in support)," he said. "All indications are that people not only find them beautiful but see them as an icon that represented the community's forward thinking toward renewable energy."

With the passage of the Renewable Portfolio Standard, Heritage now hopes to expand the project.

The current infrastructure will support up to six more windmills at the location, which could begin to be installed as early as 2009 or 2010, Wilson said.

With 10,000 acres of leased land, the project could eventually expand even further in the future.

"We look forward to expanding the project," Wilson said. There are difficulties to be faced, such as the faltering economy. "But we remain optimistic. We have the will and desire to keep forging ahead because renewable energy is something we feel has a very bright future."

Wind Development in Sherman Township

At the same time that Missaukee County was being studied for its suitability for wind development, Sherman Township in Osceola County also showed potential as a good site.

Heritage and another alternative energy firm in Texas began investigating Sherman Township for potential development.

Unlike Richland Township, Sherman Township is bound by zoning regulations, and outside of individual agreements with land owners, township policy also had to be developed and approved in order to construct industrial-sized wind turbines.

To discuss the potential for wind development, the Sherman Township Planning Board has held several meetings, but public support has been split. Meetings drawing over 100 residents heard both adamant support and opposition to the prospect of wind development.

Months later, zoning policy has yet to be established. Another meeting will be held Tuesday to discuss the issue.

Heritage, who has leased land in the area, is waiting on the results of the " planning board to consider moving forward with " development.

"I think with wind development, there is a fear of the unknown," Wilson said of the process that has taken over a year. "I think that now that there are turbines in the area, people can make a more objective opinion on what they think of them."

"There is property there that is very suitable for wind development, and we'd like the opportunity to continue to investigate that," Wilson said.

Ideally, Heritage would like to be welcomed with enthusiastic support, Wilson said. "We'd like to be in Sherman Township, but we'll see what zoning ends up allowing. We have other opportunities elsewhere - we aren't going to fight battles."

In the meantime, Heritage will wait upon the township leadership's decision and move forward from there.

While 2008 was a year of study and discussion for Sherman Township, 2009 will determine whether the discussion will end or wind development will continue.

Energy Park

In July, Gov. Jennifer Granholm signed legislation creating the Centers for Energy Excellence. The

bill aims to connect companies, academic institutions and government to help create jobs in alternative energy and advanced energy.

The energy picture in McBain changed considerably with the arrival of Tom Vine as the new plant manager of Viking Energy of McBain. Vine was hired during the summer, coming to McBain from the University of Iowa. There, Vine was working on a district energy system for the university's Oakdale campus.

Drawing on his 25 years of work in energy, including nuclear power, Vine began championing the idea of creating a renewable energy park in McBain in which the by-products of one system would be used as fuel for another. Under the energy park concept, for example, a bio-diesel plant would produce fuel but would also generate glycerin which could be burned in the renewable energy plant.

Some of the initial engineering studies for the renewable energy park are being pursued, according to the City of McBain's Economic Development Director, Bob Jones. An application is being submitted to the Department of Agriculture's Rural Development for a grant to fund an engineering study. The study would help determine the correct size of each of the energy park's components.

The energy park would consist of the existing power plant, as well as the planned ethanol plant, joined by a bio-diesel plant, an algae plant, and an anaerobic digester.

The construction of the ethanol plant is projected to take place this spring. Although the price of gasoline has dropped considerably since the McBain plant was proposed in 2006, the price of corn has also dropped, and ethanol is still needed as a gasoline additive to replace MTBE, Jones said.

Engineers agree that in theory the energy park project could work because they know the inputs and by-products of each process. But one of the first questions is how big will each system need to be to fit into the process.

"How many gallons of waste product need to be produced, and how does that quantity match up with the needs of the other projects?" Jones explained.

The cost of the engineering study is expected to be shared by McBain's Tax Increment Finance Authority and Viking Energy, with the addition of funds from Rural Development. The engineering study is expected to cost \$80,000 to \$100,000. Bids for the study will probably be awarded in March, Jones said.

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