

Forward Wind

Developer: Forward Wind, LLC

Location: Fond Du Lac & Dodge Counties, Wisconsin

Prepared July, 2008

For updates, see www.macalester.edu/windvisual

BACKGROUND

Southern Fond Du Lac County and northern Dodge County in eastern Wisconsin are home to the small agricultural towns of Brownsville, South Byron, Oakfield, Lomira, and Leroy, and more recently, the Forward Wind Energy Center. These small communities are located fifty miles north of Milwaukee and twelve miles to the south of Fond Du Lac, one mile west of Highway 41, the main route of travel between these two cities. Two miles to the east lies a large marsh, the Horicon Natural Wildlife Preserve. Dodge County has a population density of 100 people per square mile, while Fond Du Lac County has a density of 137. The median household income is \$50,000 in Dodge County and \$43,000 in Fond Du Lac County. Brownsville, the largest of the affected towns has a population of 563 and a median income of \$69,000.

In 2004, Forward Wind LLC, a division of Invenergy Wind LLC, filed an application with the Wisconsin Public Service Commission (PSC) for the authority to construct a 133 turbine, 200 MW wind turbine facility, the largest project in the state to date. The turbines are General Electric 1.5 MW turbines, with a ground-to-rotor tip height of nearly 400 feet. The proposed area is on a slight ridge and the land use is over 95% agricultural. The project area was chosen for its good wind resource, transmission availability, and perceived community acceptance.

POLICY CONTEXT

In 1999, Wisconsin passed a Renewable Portfolio Standard



(RPS) that required 2.2% of all electricity purchased by utilities to be from renewable sources by 2011. In 2003, the RPS was expanded to reach 10% by 2015. Wisconsin has relatively poor wind resources, so the few good wind resource areas must be developed to meet the state's goals. Wisconsin is also an energy importer, buying over \$6 billion per year of electricity from nearby states.

All proposed power facilities greater than 100 MW must obtain a Certificate of Public Convenience and Necessity from the Wisconsin Public Service Commission (PSC). The Wisconsin Department of Natural Resources (DNR) requires erosion control and stormwater runoff permitting for wind turbine construction. The Wisconsin Environmental Policy Act (WEPA) stipulates that large power facilities that are subject to both PSC and DNR restrictions must draft an Environmental Impact Statement (EIS) outlining the project's impact on the human and natural environment and submit it to the PSC.

WEPA does not require wind projects to perform a visual impact assessment. However, Invenergy did include a brief section on visual impacts within the EIS. The EIS reported that visual impact was too subjective to judge, but the project would result in permanent changes to the physical environment. The PSC included four visual impact simulations from Invenergy and also one from an opposition group to demonstrate the appearance of the completed project.

Finally, a wind project can obtain conditional-use permits from the surrounding townships. These permits are not necessary once PSC approval has been granted, but they are important for maintaining good community relationships. Invenergy was able to obtain permits from all the surrounding towns.

PUBLIC RESPONSE

Public opposition to the Forward project began forming almost immediately in the affected towns. Joe Breaden and Curt Kindschuh formed the Horicon Marsh Systems Advocates (HMS

WIND IN EASTERN WISCONSIN COUNTIES:

Project	Location	Developer	Turbines	Status
Blue Sky Green Field	Fond du Lac	We Energies	88	Operating
Butler Ridge	Dodge	Midwest Wind Energy	36	Construction
Twin Creeks	Manitowoc	Navitas Energy	49	Construction
Shirley Wind	Brown	Emerging Energies	8	Construction
Cedar Ridge	Fond du Lac	Midwest Wind Energy	41	Construction Stalled
Mishicot	Manitowoc	Emerging Energies	7	In litigation
Calumet	Calumet	EcoEnergy	~75	Permitting
Stonybrook	Calumet	Midwest Wind Energy	75+	Permitting



Visual simulation, from the Horicon Marsh Systems Advocate

Advocates) to oppose the development, and the group began holding meetings in 2004. The HMS Advocates opposed the wind turbines because of their impacts on the wildlife in Horicon Marsh, but their website cites a number of other concerns, including aesthetics, property devaluation, and noise. In order to redress these concerns, HMSA asked for a three-year bird and bat study, a more comprehensive study on property values, and a five-mile setback from the Horicon Marsh.

In late 2004, both Invenergy and the HMS Advocates began holding public meetings, garnering over 120 individuals at each. By early 2005, the public controversy had escalated. The HMS Advocates built a website, filed as a nonprofit and began accepting donations to further its cause. With donations and other funding, The HMS Advocates were able to commission outside reports and hire professional lawyers. The group also began selling large yard signs that exclaimed "NO WIND TURBINES HERE!" These yard signs became a larger part of the controversy when two 21-year-olds stole at least ten of the signs and vandalized seven more.

In April 2005, the PSC released the draft EIS (DEIS) and received over three hundred comments. National conservation groups found faults in the wildlife impact assessment, which Invenergy admitted was less thorough than other wind developments in Wisconsin. While many citizens noted the impacts to wildlife and aesthetics, concerns about corporate ownership, health, and property values were frequent. While many of the comments came from local citizens, more than seventy came from a form letter filled out by citizens from around the country. The project also received many comments in support. Invenergy responded to these concerns in the Final EIS (FEIS), which it released in June 2005. The PSC's July public hearing approved the project. However, the PSC required a two-mile setback from the Horicon Marsh, reducing the first phase of the project to 86 turbines. The HMS Advocates immediately petitioned for a rehearing, but were denied.

In a surprising move after gaining PSC approval, Invenergy chose to offer nearby landowners compensation for potential property devaluation due to the visual impact of the wind farm. Residents living within one third of a mile of one turbine would receive \$500 per year, and those living within one third of a

mile of two or more turbines would receive \$750 per year. The move came as the town of Byron was negotiating a special-use permit for the project, which was unanimously approved after the addition of the money.

The HMS Advocates continued to fight by petitioning the PSC-affirming decision made by the Dodge County Circuit Court. Their request was denied in March 2006, and so HMSA appealed that decision as well. The appeals court ruled in favor of Invenergy in July 2007. Because of the long appeals process and a tardy permit from the Federal Aviation Administration on military radar impacts, project construction was delayed until late 2007. The first phase of 86 turbines went online in March 2008.

CONCLUSION

It's difficult to assess what role visual impacts played in the Forward Wind case. While the earliest and primary concern voiced by the opposition was over the wildlife impacts, visual impacts were often articulated as unease about property values as well as the visual impact of the turbines on the marsh. These issues have become important to wind opposition groups in other Wisconsin projects. However, Invenergy's decision to compensate landowners who would receive the most visual impact remains unique. When compared to other projects in Wisconsin, Forward Wind was modestly successful, gaining at least some community support.

Since the resistance to the Forward project was formed, opposition groups in eastern Wisconsin have had greater success at stopping projects. Projects less than 100 MW have been stalled because of county wind moratoriums, resulting in an increasing number of projects larger than 100 MW. Groups have expanded upon the HMS Advocates position by articulating fears about the noise, health, and water impacts of turbines. They have also continued to sue developers, with little success. Within Wisconsin, wind farms continue to be very controversial regardless of their location or scale.

For more information on this case, and on others, go to www.mcalester.edu/windvisual

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