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**BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

**COMMENTS AND RECOMMENDATIONS OF THE  
MINNESOTA DEPARTMENT OF COMMERCE  
ENERGY FACILITY PERMITTING STAFF**

**DOCKET NO. PT6528/WS-06-91**

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Meeting Date: May 25, 2006.....Agenda Item # 3

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Company: High Prairie Wind Farm 1, LLC.

Docket No. **PUC Docket Number: PT6528/WS-06-91**

**In the Matter of a Site Permit for the High Prairie Wind Farm I, LLC  
98.9 Megawatt Large Wind Energy Conversion System and  
Associated Facilities in Mower County, Minnesota.**

Issue(s): Should High Prairie Wind Farm I, LLC, be granted a site permit under Minnesota Statutes section 116C.694 to construct a 98.9-Megawatt Large Wind Energy Conversion System and Associated Facilities in Mower County, Minnesota?

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The enclosed materials are work papers of the Department of Commerce Energy Facility Permitting Staff. They are intended for use by the Public Utilities Commission and are based on information already in the record unless otherwise noted.

<b>Relevant Documents</b>	<b>Date</b>	<b>Doc #</b>
Site Permit Application of High Prairie Wind I, LLC	February 10, 2006	(1)

**Documents Attached**

- A. Exhibit List
- B. Findings of Fact and Conclusions
- C. Site Permit

**Note:** Relevant documents and additional information is available on eDockets (06-91) or the PUC Facilities Permitting website <http://energyfacilities.puc.state.mn.us/Docket.html?Id=18456>

This document can be made available in alternative formats; i.e. large print or audio tape by calling (651) 201-2202 (Voice) or 1-800-627-3529 (TTY relay service).

**Statement of the Issue**

Should the Public Utilities Commission (the PUC or Commission) grant or deny a site permit to High Prairie Wind Farm, LLC for the 98.9-Megawatt High Prairie Wind Farm and associated facilities in Mower County, Minnesota?

**Regulatory Framework and Background**

Effective July 1, 2005, Article 3 of the energy bill Senate File 1368 transferred energy facility permitting (power plants, transmission lines, pipeline and wind turbine siting) authority from the Minnesota Environmental Quality Board (EQB) to the PUC.

A site permit from the PUC is required to construct a Large Wind Energy Conversion System (LWECS), which is any combination of wind turbines and associated facilities with the capacity to generate five megawatts or more of electricity. This requirement became law in 1995. Minnesota Statutes, sections 116C.691 through 116C.697. The rules to implement the permitting requirement for LWECS are in Minnesota Rules Chapter 4401.

Between 1995 and June 2005, the EQB and PUC issued 14 site permits for LWECS projects, totaling approximately 850 Megawatts. Those projects have ranged in size from 10 MW to 205 MW and have been or are being built in the Minnesota counties of Lincoln, Pipestone, Murray, Nobles, Jackson, Martin, Dodge and Cottonwood. The High Prairie Wind Farm will be located in Mower County, Minnesota.

**The Applicant**

The Applicant (High Prairie Wind Farm I, LLC) will own the Project including all equipment up to the high side of the 161 kV busbar at the Project Substation, as well as jointly own, with High Prairie Wind Farm II, LLC, the 161 kV transmission line interconnecting the Project to the Adams Substation.

High Prairie Wind Farm I, LLC and High Prairie Wind Farm II, are subsidiaries of Horizon Wind Energy, LLC (Horizon) which is a subsidiary of The Goldman Sachs Group.

Upon completion of development activities, High Prairie Wind Farm I, LLC will be acquired by FPL Energy Mower County, LLC, which is a wholly owned subsidiary of FPL Energy, LLC (FPLE). FPLE will be responsible for the project management, procurement, construction, commissioning, operation, and long-term ownership of the Project.

### **Project Location**

The proposed project site, located in Mower County approximately 15 miles east southeast of Austin, Minnesota, and just southeast of the city of Elkton, is approximately 10,000 acres in size. The turbines will be placed in the townships of Lodi (Sections 4, 5, 7, 8), Clayton (Sections 13, 14, 23 - 28, 33 - 36), and Bennington (18 - 21). The proposed site is comprised primarily of row crop agricultural lands. It is anticipated that the area of direct land use for the turbines and associated facilities will be approximately 65 acres and this would include approximately 11 miles of 36 to 40 foot wide gravel access roads. The Applicant has easements or options on the land necessary within the site to build the project. Land rights will encompass the proposed wind farm and all associated facilities, including but not limited to wind and buffer easements, wind turbines, access roads, electrical collection system, and transmission lines located on public and private property.

### **High Prairie Wind Farm I, LLC Project Description**

The proposed project will use 43 Siemens 2.3 MW wind turbines for an installed nameplate capacity of 98.9 MW. The turbine has a hub height of 80 meters (262 feet) and a rotor diameter of 93 meters (305 ft). The rotor consists of three blades mounted to a rotor hub. The hub is attached to the nacelle, which houses the gearbox, generator, brake, cooling system, and other electrical and mechanical systems. The rotor swept area is 6,800 meters<sup>2</sup> (73,195 feet<sup>2</sup>). The rotor blades will make between six and 16 revolutions per minute, dependent on wind speed. Maximum rotor tip speed is 164 miles per hour.

Two foundation designs are under consideration depending on the geotechnical study results. The first type, a spread footing foundation would contain approximately 400 - 500 cubic yards of structural concrete. The second type, a pier foundation, would consist of a 30 - 35 foot long corrugated metal cylinder (16 - 18 foot in diameter) placed vertically in the ground and would contain approximately 250 - 300 cubic yards of structural concrete.

The electrical collector system will consist of underground 34.5 kV collection lines and facilities providing step-up transformation.

Other project components include: all-weather class 5 access roads of gravel or similar materials, pad-mounted step-up transformers, concrete and steel tower foundations, a supervisory control and data acquisition system, meteorological towers, and an operations and maintenance building.

Power from the project will be sold and delivered to Xcel Energy at the Adams Substation from a new nine mile long 161 kV transmission line that will be built to carry the power delivered by

High Prairie Wind Farm to the new Project Substation, located in Section 23 of Clayton Township. This 161 kV transmission line project has been reviewed and permitted by Mower County and does not require a route permit from the PUC.

A Certificate of Need from the Minnesota Public Utilities Commission (PUC) is not required because the project is the result of Xcel Energy's 2001 Commission approved competitive bidding process.

### **Procedural Background**

The site permit application has been reviewed pursuant to the requirements of Minnesota Rules Chapter 4401 (Wind Siting Rules).

On February 10, 2006, the PUC received the site permit application submitted by High Prairie Wind Farm I, LLC. On March 7, 2006, the PUC accepted the application and made a preliminary determination to issue a draft site permit. Upon acceptance of the application DOC EFP staff initiated the review and notice requirements of Minnesota Rules Chapter 4401.

The rules provide opportunities for the public to participate in deliberations on the LWECs permit application. The public was advised of the submission of the permit application after the application was accepted, a draft site permit on the project was provided for the public and the applicants to review, the public was afforded a period of time to submit written comments, and a public meeting was held in Adams, Minnesota, on March 27, 2006. About 60 people attended the public meeting.

DOC staff reviewed the permitting process requirements and responded to questions about the draft site permit, and the permitting process. Representatives of the applicant were available to describe the project and answer questions. No adverse comments were registered at the public meeting.

### **Public Comments**

Two comment letters were received. One comment letter was received by the close of the April 12, 2006, comment period and other comment letter was received on May 10, 2006.

- 1) The April 12, 2006, letter from the Department of Natural Resources commented on the site permit application and conditions in the draft site permit. A minor change was made in the site permit to address the DNR concern about reseeding disturbed rights-of-way.
- 2) The May 9, 2006, letter from the Minnesota Historical Society indicated its interest in a survey of all disturbed areas. An archaeological survey was completed on April 12, 2006.

### **Issues**

No significant issues were identified during the course of this proceeding.

## **Record**

A DOC EFP staff exhibit list of the written comments and other documents that are part of the record in this permit proceeding is included as Attachment A in the Commissioner's packet. The DOC staff can make any of these documents available to a PUC member upon request, and copies will be available at the PUC meeting.

## **Findings of Fact**

The staff has prepared proposed Findings of Fact and Conclusions for the project. See Attachment B in the Commissioner's packet. The proposed Findings address the procedural aspects of the process followed, describe the project, respond to the written comment(s), and address the environmental and other considerations of the project. Most of the findings in the Findings of Fact reflect findings that were also made for other LWECS projects. The following outline identifies the categories of the Findings.

<u>Category</u>	<u>Findings</u>
Background and Procedure	(Findings Nos. 1 – 8)
The Permittee	(Findings Nos. 9 – 11)
Project Description	(Findings Nos. 12 – 17)
Wind Resource Considerations	(Findings Nos. 18 – 22)
Land Rights and Easement Agreements	(Findings Nos. 23 – 24)
Written Comments	(Findings Nos. 25 – 27)
Site Criteria	(Findings Nos. 28 – 71)
Site Permit Conditions	(Findings Nos. 72 – 73)

## **Standard for Permit Issuance**

Essentially the test for issuing a site permit for a Large Wind Energy Conversion System is to determine whether a project is compatible with environmental preservation, sustainable development, and the efficient use of resources. Minnesota Statutes section 116C.693. The wind statutes incorporate certain portions of the Power Plant Siting Act, including the environmental considerations. The site criteria addressed in the Findings of Fact (such as human settlement, noise, community benefits, and surface water) track the factors described in the PUC's rules for other types of power plants that are pertinent to wind projects. (Minnesota Rules part 4400.3310). Also, the law allows the PUC to place conditions in LWECS permits. Minnesota Statutes section 116C.694 (d). The conditions in this proposed Site Permit are essentially the same as those conditions included in other LWECS site permits issued by the Environmental Quality Board and the PUC. See Attachment C in the Commissioner's packet.

## **PUC Decision Options**

- A. Adopt the Findings of Fact and Conclusions and issue a Site Permit with the conditions proposed by EFP staff to High Prairie Wind I, LLC for the 98.9 MW High Prairie Wind Farm in Mower County, Minnesota. The site permit issued by the PUC authorizes High Prairie Wind I, LLC to construct and operate a 98.9-megawatt large wind energy conversion system and associated facilities in Mower County, Minnesota, in accordance with the conditions contained in the site

permit and in compliance with Minnesota Statutes, section 116C.694 and in Minnesota Rules Chapter 4401.

- B.** Amend the Findings of Fact and Conclusions and Order and Site Permit as deemed appropriate.
- C.** Deny the site permit.
- D.** Make some other decision deemed more appropriate.

**DOC Staff Recommendation.**

The DOC staff recommends option A.