



BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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

DOCKET No. PT 6528/WS-06-91

Meeting Date: March 7, 2006 Agenda Item # _____

Company: High Prairie Wind Farm I, LLC

Docket No. PUC Docket Number: PT 6528/WS-06-91

In the Matter of a Site Permit Application for the 101.2-Megawatt
High Prairie Wind Farm I, LLC in Mower County.

Issue(s): Should the Minnesota Public Utilities Commission accept,
conditionally accept, or reject the Site Permit Application and Should a
Draft Site Permit be Issued?

If the application is accepted, it is requested that the PUC also: A) Appoint
a public advisor; B) Make a preliminary determination on whether a
a draft site permit may be issued or should be denied; and C)
Authorize a Draft Site Permit for distribution and public comment.

DOC Staff: Larry B. Hartman.....651-296-5089
Jeff Haase651-297-5648

Relevant Documents (in Commission Packet)

See eDockets (06-91) or the PUC website at:

<http://energyfacilities.puc.state.mn.us/Docket.html?Id=18456> for the documents identified below.

1. Schematic of Permitting Process for Large Wind Energy Conversion Systems
 2. Draft Site Permit.
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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.

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) accept, conditionally accept, or reject the application of High Prairie Wind Farm I, LLC? Appoint a public advisor? Should the Commission make a preliminary determination on whether a Site Permit may be issued or denied and authorize a Draft Site Permit?

Regulatory Framework and Background

A site permit from the Public Utilities Commission 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. A diagram of the permitting process is enclosed for illustration purposes. See item #1 in Commissioner's packet.

Between 1995 and June of 2005, the EQB issued 11 site permits for LWECS projects, totaling approximately 630 Megawatts and the PUC has issued one site permit for a 60 MW LWECS facility in September 2005. Those projects have ranged in size from 10 MW to 107.5 MW and have been or are being built in the Minnesota counties of: Lincoln, Pipestone, Murray, Jackson, Martin, Dodge and Cottonwood.

The Applicant and Project Ownership

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 currently wholly owned subsidiaries of Horizon Wind Energy LLC (Horizon), which is a subsidiary of The Goldman Sachs Group, Inc.

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 east 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), and Bennington (Sections 18-21). The proposed site is comprised primarily of agricultural lands. It is anticipated that the area of direct land use for the turbines and associated facilities would be approximately 60 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 roads when necessary.

High Prairie Wind Farm I, LLC Project Description

The proposed project will use up to 44 Siemens 2.3 MW wind turbines for an installed nameplate capacity of 101.2 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 meters² (73,195 feet²). The rotor speed will be between six and 16 revolutions per minute. Maximum rotor tip speed is 164 miles per hour.

Two foundation designs are under consideration depending on the geotechnical study results. The first, a spread footing type of 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 from the High Prairie Wind Farm that will deliver power to the new Project Substation, located in Section 23 of Clayton Township. This 161 kV transmission line project is being 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

A. Application Acceptance. Minnesota Rules, part 4401.0460 states that: "Within 30 days after receipt of an application for a site permit, the PUC shall accept, conditionally accept, or reject the application."

On February 10, 2005, Horizon Wind Energy filed a site permit application for the High Prairie Wind Farm I, LLC with the Public Utilities Commission. The site permit application has been reviewed by DOC EFP staff pursuant to the requirements of Minnesota Rules Chapter 4401 (Wind Siting Rules). The application provides all of the information required by Minnesota Rules, part 4401.0450. Acceptance of the application allows staff to initiate the review requirements of Chapter 4401.

B. Public Advisor. Minnesota Rules, part 4401.0470 states: "Upon acceptance of an application for a site permit, the PUC shall designate a staff person to act as the public advisor on the project.

DOC EFP staff requests that Jeff Haase be appointed as the public advisor for this project.

C. Preliminary Determination. Minnesota Rules, part 4401 0500 Subpart 1. states that: "Within 45 days after acceptance of the application by the PUC, the PUC shall make a preliminary determination whether a permit may be issued or should be denied. If the preliminary determination is to issue a permit, the PUC shall prepare a draft site permit for the project. The Draft Site Permit must identify the permittee, the proposed LWECS, and proposed permit conditions."

EFP staff has used the information in the application and experience with other LWECS projects as a guide for recommending to the Commission that a preliminary determination be made to issue a draft permit. EFP staff is recommending that the Commission make a preliminary determination to issue a draft site permit for the project. EFP staff has prepared a Draft Site Permit and is requesting Commission approval of the Draft Site Permit. See item #2 in the Commissioner's packet. Commission approval of the Draft Site Permit will allow for distribution and comment on the Draft Site Permit by units of government and the public.

Decision Options

- A. Accept the High Prairie Wind Farm I, LLC application for a site permit as complete; appoint DOC EFP staff member Jeff Haase as the public advisor; make a preliminary determination that a draft site permit may be issued; and approve the Draft Site Permit for the High Prairie Wind Farm I, LLC for distribution and public comment.
- B. Reject the application and advise the applicant in writing of the deficiencies in the application and the manner in which the deficiencies can be addressed.
- C. Make some other decision deemed more appropriate.

DOC Staff Recommendation. The DOC staff recommends option A.