

Minnesota Department of Natural Resources

500 Lafayette Road • St. Paul, MN • 55155-40__



April 22, 2011

Suzanne Steinhauer
State Permit Manager
Minnesota Division of Energy Resources
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

Re: Draft Site Permit for the Black Oak Wind Farm in Stearns County
[PUC Docket No. IP6853/WS-10-1240]

Dear Ms. Steinhauer:

The Minnesota Department of Natural Resources (DNR) has reviewed the Draft Site Permit for the 42 MW Black Oak Wind Farm project proposed in Stearns County, Minnesota and provides the following input. The DNR previously provided the attached comments regarding the Site Permit Application. Any updates to the comments will be included in this letter as well as comments regarding the Draft Site Permit.

The attached DNR letter dated February 10, 2011 discusses a recommendation for pre-construction surveys to assess avian use of the site. The Minnesota Department of Commerce, Division of Energy Resources (DER), DNR and the applicant met to discuss recommended survey protocol for Spring 2011 avian surveys and understand that surveys are currently underway during the migratory season. The DNR would appreciate the opportunity to review and discuss with DER and the applicant survey results when they become available.

The intent of DNR recommendations for pre-construction surveys is to use data for project planning in order to avoid natural resource impacts. The DNR concurs with the DER practice as described in the comments and recommendations dated March 1, 2011 (page 6) to recommend that studies classified as Tier III (pre-construction) by the United States Fish and Wildlife Service (USFWS) Draft Land-Based Wind Energy Guidelines be submitted prior to the final permit decision. The DNR recommends that Tier III studies are reviewed by the DER, DNR, and applicant prior to issuance of a final site permit. When submitted prior to the final permit decision, determinations can be made regarding infrastructure locations and any necessary permit requirements regarding USFWS Draft Land-Based Wind Energy Guidelines Tier IV (post-construction) surveys. Information is also provided to assist the Minnesota Public Utilities Commission (PUC) with their final permit decision.

Please also see sections of the attached DNR letter dated February 10, 2011 titled "Turbine Layout" and "Other." The DNR appreciates clarification provided regarding snow mobile trails in the comments and recommendations document for issuance of the Draft Site Permit. Clarification in updated maps of meteorological tower locations is also appreciated. Other comments in these sections should continue to be considered during the site permitting process.

Please note that an active eagle nest was reported to the DNR March 31, 2011 near the southeast portion of the project. The DNR informed the USFWS and applicant of this nest location, which was later reported as verified by the applicant with a spotting scope. The DNR encourages continued coordination with the USFWS regarding requirements of the Bald and Golden Eagle Protection Act.



Item 4.6 in the Draft Site Permit discusses wetlands. Please note that any impacts to wetlands that are not public waters would also need to be addressed by local government in accordance with the Minnesota Wetland Conservation Act.

The DNR appreciates the opportunity to review the Draft Site Permit for the Black Oak Wind Farm. Please contact me with any questions.

Sincerely,

A handwritten signature in black ink that reads "Jamie Schrenzel". The signature is written in a cursive style with a large, looping initial "J".

Jamie Schrenzel
Principal Planner
Environmental Review Unit
(651) 259-5115

Enclosures: 1

cc: Melissa Doperalski, DNR
Richard Davis, USFWS
Karyn O'Brien, Geronimo Wind Energy, LLC

Minnesota Department of Natural Resources

500 Lafayette Road • St. Paul, MN • 55155-40



February 10, 2011

Suzanne Steinhauer, State Permit Manager
Minnesota Department of Commerce
Office of Energy Security
Energy Facility Permitting
85 7th Place East, Suite 500
St. Paul, MN 55101-2198

Re: Black Oak Wind Farm Site Permit Application [PUC Docket Number: IP6853/WS-10-1240]

Dear Ms. Steinhauer:

The Minnesota Department of Natural Resources (DNR) has reviewed the Black Oak Wind Farm Site Permit Application and DNR staff visited the project site June 23, 2010 and January 27, 2011. The following comments are provided regarding DNR site visits and information presented in the Site Permit Application.

Wildlife Surveys

The Site Permit Application (pages 50-54) indicates that pre-construction surveys are not planned for this site based on responses to tiered analysis questions recommended by the Wind Turbine Guidelines Advisory Committee. The application (page 44) also included a discussion of the relevance of wildlife surveys conducted at the Paynesville Wind Farm site, which is located 17 miles to the southeast of the Black Oak Wind Farm Site.

After review of the Site Permit Application and attending site visits, DNR staff have considered the applicants proposal to use data from pre-construction surveys at from the Paynesville Wind Farm to assess the Black Oak Wind Farm Site and do not recommend this approach to site assessment at this time. If more data were available in Minnesota regarding the effects of wind turbines on wildlife for various habitat features, there might be a situation where detailed regional knowledge could be applied to specific sites with risk of avian fatality. However, that amount of regional understanding is currently not available in the area surrounding the Black Oak Wind Farm. It is also important to consider the substantial variation in habitats and species use among individual sites, even when located in relatively close proximity. Therefore, the DNR does not consider Paynesville Wind Farm pre-construction data in an assessment of whether pre-construction surveys are recommended for the Black Oak Wind Farm. However, comparison of data among projects in an area is encouraged for long term renewable energy development planning and may be useful as supplemental information in the record for this project.

Based on the Tier 1 and Tier 2 assessment referenced in the application and DNR assessment of the site, staff consider this site to have moderate risk for avian fatalities. The Black Oak Wind Farm site and current turbine layout avoid high quality habitats such as the Regionally Significant Ecological Area located in the southeast portion of the project, Wildlife Management Areas (WMA) and prairie. However, the surrounding area contains eighteen WMAs, thirty-four Waterfowl Production Areas (WPA), and one Scientific and Natural Area (SNA) within ten miles. There is also known migratory avian activity in the project area as described in the Site Permit Application. The Marbled Godwit (State-Listed Special Concern) and Upland Sandpiper (Species of Greatest Conservation Need), two species with courtship displays in the rotor swept zone, are also recorded near the project site. When



considering a larger landscape review, avian activity viewed particularly during the June 2010 DNR site visit, and rare species near the project area, a moderate risk of avian fatality and impact is identified for the Black Oak Wind Farm.

A pre-construction survey, including a Flight Path Analysis and concurrent point counts, is recommended in targeted areas that may pose a barrier to flight such as the center of Section 12 near the southeast portion of the project area and near the line of turbines in Section 2 in the central western portion of the project. These areas appear to present a barrier to avian flight patterns between conservation lands. The DNR is currently developing draft protocol for flight path analyses and encourages the applicant and Office of Energy Security (OES) to coordinate survey development with DNR staff.

Turbine Layout

Figures 8-12, 8-13, 8-14 included in the Site Permit Application indicate the location of grasslands within the project area. Some turbines appear to be located within grasslands, yet quite close to cropland. The DNR recommends making minor adjustments to turbine locations to avoid grassland whenever possible because, though grasslands appear to be fragmented in areas, smaller sized grassland patches in close proximity to each other can provide suitable habitat for colonization by grassland birds (Herkert 1998).

Figures included within the Site Permit Application indicate three possible turbine types and layouts. Vestas V90, GE 1.6xle, and Vestas V112 are shown in the figures section of the document. The layouts planned for the Vestas V90 and GE 1.6xle types of turbines appear to create possible flight barriers to migrating or resident birds and also include a greater number of turbines located near what appears to be a farmed ephemeral wetland in Section 12 near the southeast portion of the project. Ephemeral wetlands are often used as migratory stopover locations. The Vestas V112 layout appears to most avoid these possible impacts, with the exception of one turbine near the farmed ephemeral wetland in Section 12.

During meetings with the applicant, there was discussion of possible alternate turbine locations. The DNR encourages avoidance of sensitive habitats when considering siting for alternate turbine locations as well as planned turbine locations. For example siting near prairie and wetland habitats is not preferred. Also, alternate turbine locations should be included in future permitting review documents.

The DNR recommends appropriate avoidance of snowmobile trails or an effort to coordinate with landowners and the DNR regarding any DNR administered "Grant-in-Aid" snowmobile trails within the project area to address possible safety concerns associated with falling ice.

Other

Page 43 of the Site Permit Application discusses mitigation measures. The last line of Section 8.18.3 states that "If jurisdictional wetland impacts are proposed, then the Applicant will apply for wetland permits." Information should be provided regarding the type of impacts and which permits would be sought. If impacts are proposed to a public water wetland, a DNR Work in Public Waters Permit would be required.

The Site Permit Application states that the location of a six-acre laydown area within the project area will be identified later in the permitting process. The location of the laydown area may be relevant to a review of natural resource impacts. This location should be clarified as soon in the process as possible to facilitate public and agency reviews.

The Site Permit Application states on page two that two permanent MET towers will be on site. However, page ten seems to state that only one permanent MET tower will remain on site. The exact location of these permanent towers is also unclear.

Thank you for the opportunity to provide input regarding the Black Oak Wind Farm Project. Please contact me with any questions.

Sincerely,

A handwritten signature in cursive script that reads "Jamie Schrenzel".

Jamie Schrenzel
Principal Planner
Environmental Review Unit
(651) 259-5115