



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 American Blvd E.
Bloomington, Minnesota 55425-1665

May 12, 2011

Ingrid Bjorklund
State Permit Manager
Minnesota Department of Commerce
Office of Energy Security
85 7th Place East, Suite 500
St. Paul, Minnesota 55101

Re: Shell Rock Wind Energy Project – Site Permit Application Review
Freeborn County, Minnesota
PUC Docket: IP6858/WS-11-195
FWS TAILS #32410-2011-CPA-0011

Dear Ms. Bjorklund:

This letter is intended to provide Service comments and recommendations specific to the Site Permit Application for the proposed Shell Rock Wind Energy Project in all or parts of Sections 7-9, 16-21, and 28-30, all in Township 102 North, Range 22 West; and Section 12, Township 102 North, Range 23 West, in Freeborn County, Minnesota. The proposed project includes the installation of wind turbines and associated infrastructure including roads, transmission lines, and staging areas. The original macro-siting project boundary sent to our office covered a total area of approximately 19,200 acres, which was later reduced to the current layout with a total area of approximately 8,085 acres.

The following comments are being provided pursuant to the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act, and Fish and Wildlife Act of 1956. This information is being provided to assist you in making an informed decision regarding wildlife issues, site selection, project design, and compliance with applicable laws.

The Fish and Wildlife Service supports the development of wind power as an alternative energy source. However, wind farms can have negative impacts on wildlife and their habitats if not sited and designed with potential wildlife and habitat impacts in mind. Selection of the best sites for turbine placement is enhanced by ruling out sites with known, high concentrations of birds and/or bats passing within the rotor-swept area of the turbines or where the effects of habitat fragmentation will be detrimental. In support of wind power generation as a wildlife-friendly, renewable source of power, development sites with comparatively low bird, bat and other wildlife values would be preferable and would have relatively lower impacts on wildlife.

The Service recommends that impacts to streams, wetlands, grasslands, and forested areas be avoided. Streams and wetlands provide valuable habitat for fish and wildlife resources, and the filtering capacity of wetlands helps to improve water quality. Naturally-vegetated buffers surrounding stream and wetlands are also important in preserving their wildlife habitat and water quality-enhancement properties. Grasslands provided significant habitat for ground-nesting bird species. Forested riparian systems (wooded areas adjacent to streams) provide important stopover habitat for birds migrating through the region, and provide roosting and foraging habitat for various bat species.

The proposed activities do not constitute a water-dependent activity, as described in the Section 404(b)(1) guidelines, 40 CFR 230.10. Therefore, practicable alternatives that do not impact aquatic sites are presumed to be available, unless clearly demonstrated otherwise. Therefore, before applying for a Section 404 permit, the client should closely evaluate all project alternatives that do not affect streams or wetlands, and if possible, select an alternative that avoids impacts to the aquatic resource. If water resources will be impacted, the St. Paul District of the U.S. Army Corps of Engineers should be contacted for possible need of a Section 404 permit.

Federally-listed Threatened, Endangered, and Candidate Species

Because of the potential for wind power projects to impact federally-listed species, they are subject to the Endangered Species Act (16 U.S.C. 1531-1544) section 9 provisions governing "take," similar to any other development project. "Take" incidental to a lawful activity may be authorized through the initiation of formal consultation, if a Federal agency is involved. If neither a federal agency, nor federal funding, nor a federal permit is involved in the project, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA may be obtained upon completion of a satisfactory habitat conservation plan for the listed species.

Currently there are no federally-listed candidate, threatened, or endangered species present within Freeborn County, Minnesota. At any point during project planning, construction, or operation should additional information on listed or proposed species become available, or if new species are listed that may be affected by the project, the project proponent should reinitiated consultation with the Twin Cities Field Office.

At this time the Service is completing a status assessment of the Northern long-eared bat (*Myotis septentrionalis*). The species has been petitioned for listing, which would provide it protection under the ESA. Once the species is listed the proposed project could be affected if available data suggests the presence of the Northern long-eared bat is likely within or in close proximity to the proposed project site. We recommend the utilization of anabat detectors at the proposed project site to begin to gather project specific data with regard to the bat species within the area.

Migratory Birds and Concentration Areas

The Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) implements four treaties that provide for international protection of migratory birds. The MBTA prohibits taking, killing,

possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. Bald and golden eagles are afforded additional legal protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). Unlike the Endangered Species Act, neither the MBTA nor its implementing regulations at 50 CFR Part 21, provide for permitting of “incidental take” of migratory birds.

Records indicate nesting of great blue herons to the north of the proposed project, approximately 2¼ miles. Birds from this nesting colony may move through the proposed project area as they forage in areas around the nesting site. Great blue herons generally forage within ½-mile to 2 miles of their nesting colonies, but the species can travel up to eight miles from their nesting areas to forage.

Conservation Lands

We recommend that no turbines be located within ¼-mile of Conservation Reserve Program, Wetland Reserve Program, or other similar federally- or state-funded restoration projects.

Service-owned Lands

The Iowa, Chicago, and Eastern Waterfowl Production Area (WPA) is approximately ½-mile north of the proposed macro-siting boundary in Section 6, Township 102 North, Range 22 West. We recommend that the Iowa, Chicago, and Eastern WPA be removed from the proposed project boundary. There are three other WPAs within close proximity of the proposed macro-siting boundary. The Twin Lake WPA is approximately 1¼ mile to the southeast, the Halls Lake WPA is approximately 2½ miles to the north, and the Foster Creek WPA is approximately 3 miles to the west. The Service recommends a minimum turbine setback distance of ½-mile from WPAs, but a 1-mile turbine setback from WPAs would be preferred if practical and feasible.

The Service acknowledges that the project proponent made site location alterations based on our letter dated November 24, 2010, and these alterations have increased the proposed project’s distance from the WPAs in the area. However, due to the presence of the surrounding WPAs there is an increased potential for avian movement through the proposed project site.

Turbine and Tower Lighting

The Service recommends the lowest intensity lights with the longest off-phase practicable be utilized on wind turbines and meteorological towers within the project area. Recent studies indicate there does not appear to be a significant difference between red and white colored lights.

Pre-construction Surveys

The Service recommends that project proponent and their consultants conduct rigorous assessments of bird and bat use of the area before proceeding with project design (i.e., preliminary siting of specific turbines). We encourage the project proponent to maintain consistency with other wind farm survey protocols, thus allowing us to compare results with

other wind farm survey data. These comparisons will potentially provide valuable information that can be applied in future wind farm/turbine macro- and micro-siting.

The Service recommends that a raptor nest survey be completed within the proposed project boundary, and up to two miles from the macro-siting project boundary, prior to leaf-out in the spring of the year. Monitoring should be conducted to assess the daily movement patterns of any species of raptor whose nest is located within the proposed project site or within two miles of the proposed project site. During the incubation and rearing stage, the location of adult birds should be tracked for at least 4 hours twice per week until consistent activity patterns are established. These monitoring dates will be determined based upon identified species within two miles of the project boundary. Alternate monitoring strategies that assess the degree to which nesting birds utilize the proposed project site will be considered. Information collected will be used to document how frequently the birds enter the proposed project site, and this information can be utilized during micro-siting to minimize substantial risks to birds within close proximity of the project site.

The Service recommends that flight path surveys be completed throughout the proposed project site to determine bird species that are moving through the area. Surveys should be completed to determine movement during spring and fall migration, and bird movement occurring in the area throughout the summer. These surveys will help assess the overall value of the proposed project area to migratory bird species, and it will also assist us in determining the need for post construction monitoring. Flight path surveys will assist the project proponent in micro-siting turbines in locations with the lowest potential to impact migratory birds, and in avoiding areas where turbines could result in significant take.

We recommend installation of two AnaBat SDI detectors per meteorological tower to be used within the project area, and data should be collected, at a minimum, from May 15 - November 15, 2011 and 2012. One AnaBat detector should be mounted at 5 meters above ground, and the other should be mounted as close to the rotor-swept area as possible. The AnaBat's sensitivity should be adjusted to detect a calibration tone at 20 meters. AnaBat units must monitor from 0.5 hour before sunset until 0.5 hour after sunrise. This will help to gauge bat activity, and to some degree assist in determining bat species/guild composition within the project area during spring and fall migration and the maternity season.

Pre-construction survey recommendations are based on the presence of five WPAs and six Wildlife Management Areas (WMAs) within five miles of the proposed project boundary. The WPAs and WMAs provide wildlife habitat, and pre-construction surveys will provide data to characterize the avian and bat species utilization and movement through the proposed project site.

Post-construction Surveys

The Service recommends the project be monitored post-construction to determine impacts to migratory birds and bats. A specific post-construction monitoring plan should be prepared and reviewed by the Service and should include a scientifically-robust, peer-reviewed methodology

of mortality surveys. Generally, the Service recommends that surveys be conducted for a minimum of three years following construction to assess impacts to birds and bats. The duration of post-construction surveys is project-specific and will be determined based upon pre-construction survey results. Due to minimal wildlife habitat within the proposed project site, if pre-construction data indicates minimal avian movement and bat utilization throughout the site, one year of post-construction monitoring may be justified. We recommend that the post-construction mortality studies be conducted by an independent third-party contractor with expertise in bird/bat mortality monitoring. Results of mortality surveys and other forms of monitoring should be used to adjust operations to reduce mortality if necessary and feasible, as well as improve design and siting of future wind generation facilities. **The Developer or its contractor should provide to this office each year, no later than December 31, copies of annual bird/bat mortality monitoring reports.**

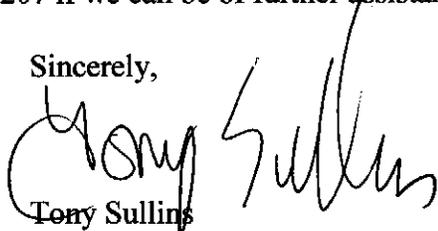
Infrastructure Considerations

Development of transmission infrastructure associated with wind facilities also poses risks to wildlife. These risks include potential avian mortality, particularly electrocution of raptors (hawks, eagles, kites, falcons, and owls), that could occur when they attempt to perch on uninsulated or unguarded power poles. Recently-published information about which types of power line poles and associated hardware (e.g., wires, transformers and conductors) pose the greatest danger of electrocution to raptors and what modifications can be made to reduce this threat can be found on the internet at <http://www.aplic.org/>.

The Service's Office of Law Enforcement serves its mission to protect federal trust wildlife species in part by actively monitoring industries known to negatively impact wildlife, and assessing their compliance with Federal law. These industries include oil/gas production sites, cyanide heap/leach mining operations, industrial waste water sites, and wind power sites. There is no threshold as to the number of birds incidentally killed by wind power sites, or other industry, past which the Service will seek to initiate enforcement action. However, the Service is less likely to prioritize enforcement action against a site operator that is cooperative in seeking and implementing measures to mitigate take of protected wildlife.

Thank you for the opportunity to provide comments on this proposed project. Please contact Rich Davis, Fish and Wildlife Biologist, at (612) 725-3548, ext. 2214, or Pete Fasbender, Deputy Field Supervisor, at (612) 725-3548, ext. 2207 if we can be of further assistance.

Sincerely,


Tony Sullins
Field Supervisor

cc: Barry Christensen, USFWS – Windom WMD
Kevin Mixon, MN DNR

Minnesota Department of Natural Resources

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



May 13, 2011

Ingrid Bjorklund
State Permit Manager
Minnesota Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101

Re: Site Permit Application of Shell Rock Wind Farm, LLC
[PUC Docket Number: IP-6858/WS-11-195]

Dear Ms. Bjorklund:

The Minnesota Department of Natural Resources (DNR) has reviewed the Site Permit Application for the Shell Rock Wind Farm in Freeborn County and provides the following input.

The DNR provided input to the project proposer for the Shell Rock Wind Farm during early project development and appreciates project adjustments made to lower the possible risk to wildlife in the vicinity of the project area.

Board of Water and Soil Resources (BWSR) conservation easement areas, including Conservation Reserve Enhancement Program (CREP) and RIM-Wetland Reserve Program lands are present in the vicinity of the project area. For areas with conservation easements, appropriate buffers to avoid impacts to avian species using these habitats are recommended.

The DNR recommends that appropriate buffers be established around wetlands with significant habitat value in order to reduce potential avian avoidance and to reduce avian and bat fatalities. Avian avoidance of wetlands (including public waters) may occur if birds no longer use the habitat for resting, feeding, or nesting because the turbines height, noise, shadow flicker, or use of access roads creates stress resulting in avoidance. Avian and bat fatalities occur when individuals strike a turbine and are injured or killed. Buffalo Ridge fatality studies indicated turbines with avian fatalities were significantly closer to wetlands (1430.45 feet) than turbines without avian fatalities (1,948.82 feet).

Considering the existence of wetlands, CREP and RIM properties in the vicinity of the project area and the larger setting of the project within a region including conservation lands such as Wildlife Management Areas, the DNR recommends further consideration of appropriate post-construction fatality studies, and coordination with wildlife agencies during the development of the Avian and Bat Protection Plan for the project. Development of the Avian and Bat Protection Plan prior to issuance is recommended to extent possible to best inform project development, appropriate survey timeframes and to best inform the PUC permit decision.

As a general practice the DNR recommends using turbine designs that minimize the number of structures erected within a project area. For example, increasing the megawatts per turbine is recommended as a way to avoid possible wildlife impacts. Habitat and species impacts can be minimized due to a decrease in the project construction foot print (turbine pads, access roads, collector lines) and less vehicle traffic associated with fewer constructed turbines. Species avoidance of the operational turbines during nesting or modifications of behavior to fly around turbines may also be



reduced. If possible, the DNR recommends the use of the 1.8 MW turbines as that would result in 5 less turbines being constructed in the project area.

DNR staff appreciated the opportunity to review the Shell Rock Wind Farm Site Permit Application. 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

-----Original Message-----

From: apache@web.lmic.state.mn.us [mailto:apache@web.lmic.state.mn.us]

Sent: Friday, April 29, 2011 8:53 AM

To: Kirsch, Raymond (COMM)

Subject: Steele Fri Apr 29 08:53:26 2011

This public comment has been sent via the form at:

www.energyfacilities.puc.state.mn.us/Complaints.html

Project Name: Shell Rock Wind Farm

User Name: David Steele

County: Freeborn County

City: Alden

Email: dave@deskmedia.com

Phone: 507-383-8817

Complaint: I am very concerned with the Shell Rock Wind Farm Project. I will be living in the project. I am concerned over my families health due to the shadow flicker caused by the turbines. If there are 4 turbines south east, south and south west, The farm site has the potential to be in shadow flicker throughout the day...who wants to be in that? I work around the wind farm in Manchester, MN. I have been around the shadow flicker it is not only annoying but also can make people sick. I know that if the flicker is a problem the wind farm will add shades or whatever but who wants to live in house that you can't look out the windows?

My wife is very concerned because it will adversely affect her photography business. She will be unable to shoot couples and families outdoors at our farm. She will be unable to use natural light through the windows in the house . We were planning in a few years to put up a studio on the farm...but now that would be impossible, She will be unable to put windows in a building due to the shadow flicker. This will result in her having to move her small business elsewhere and pay rent or facility use that she did not have previously.

David Steele

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Submission date: Fri Apr 29 08:53:26 2011

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick

andrew.koebrick@state.mn.us



Minnesota Department of Transportation

Office of Technical Support

395 John Ireland Boulevard

Saint Paul, MN 55155

Phone: 651-366-4635

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stacy.kotch@state.mn.us

Mailstop 678

May 12, 2011

Ingrid Bjorklund, State Permit Manager

Minnesota Office of Energy Security

85 7th Place East, Suite 500

St. Paul, MN 55101

RE: In the Matter of Shell Rock Wind Farm

PUC Docket Number: IP-6858/WS-11-195

Dear Ms. Bjorklund,

On April 27, 2010, the Minnesota Office of Energy Security (OES) issued a Notice of Application Acceptance, which includes a public comment period regarding the scope of the environmental report (ER) and the draft site permit that is under consideration with respect to the Minnesota Municipal Power Agency (MMPA); Shell Rock Wind Farm, LLC, for the Shell Rock Wind Farm 44 Megawatt Large Wind Energy Conversion System (LWECS) in Freeborn County. The Minnesota Department of Transportation (Mn/DOT) has reviewed the application regarding the proposed project and submits the following comments in response to the Notice.

Mn/DOT appreciates the opportunity to comment on the draft site permit. Mn/DOT notes that there are several provisions that may have impacts on the state transportation system.

Based on the information provided in the Shell Rock Wind Farm Site Permit Application, it does not appear that the project area directly abuts a state trunk highway. However, there may be highway-related considerations related to oversize/overweight hauling of wind turbines and equipment. Specifically, these large loads of freight are often transported along interregional corridors such as I-90. Because Mn/DOT's highway construction activities could impact the Applicant's plans to haul oversize loads to the proposed site, the Applicant will need to coordinate with Mn/DOT when planning such loads. If the Shell Rock Wind Farm or its associated facilities should happen to intersect with the trunk highway system, the Applicant will need to apply for and obtain permits for those locations.

The draft site permit should include language specifying that the Permittee shall obtain all relevant permits or authorizations from road authorities relating to any electric cables and/or feeder lines that may be proposed to be placed in a public road right-of-way. Mn/DOT has adopted a formal policy and procedures for accommodation of utilities on the highway rights-of-way ("Utility Accommodation Policy"). A copy of Mn/DOT's policy can be found at

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<http://www.dot.state.mn.us/utility/files/pdf/appendix-b.pdf> . Mn/DOT's policy seeks to permit utilities to occupy portions of the trunk highway rights-of-way where such occupation does not put the safety of the traveling public or highway workers at risk or unduly impair the public's investment in the transportation system. Compliance with Mn/DOT's Utility Accommodation Policy, and similar policies of other road authorities, should be included as a condition of the site permit.

Any wind farm construction work, including delivery or storage of structures, materials or equipment that may affect Mn/DOT right-of-way is of concern such that Mn/DOT should be involved in planning and coordinating such activities. The site permit should include language specifying that the Permittee shall obtain all relevant permits from road authorities relating to the transport of oversize materials and equipment related to the project over public roads, as well as installation of facilities that may be proposed to occupy portions of public road rights-of-way. Please note that if work is required within Mn/DOT right of way for temporary or permanent access, such work should be coordinated with Terry Condon in Mn/DOT's District 6B Utility Permits Office at 507-446-5505 or Terry.Condon@state.mn.us .

Please note that Mn/DOT is uncertain at this time whether the Shell Rock Wind Farm Project is an entity that has lawful authority to place its facilities in a public road right-of-way. This matter should be addressed in the ER.

Sincerely,



Stacy Kotch

Utility Transmission Route Coordinator

Minnesota Department of Transportation

395 John Ireland Blvd., Mailstop 678

St. Paul, MN 55155

cc: Terry Condon – Mn/DOT District 6B
Bruce Freeman – Avant Energy

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