BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

David Boyd	Chair
J. Dennis O'Brien	Commissioner
Phyllis Reha	Commissioner
Thomas Pugh	Commissioner
Betsy Wergin	Commissioner

Mr. Chuck Burdick
Sr. Wind Developer
National Wind, LLC
3033 Excelsior Blvd., Suite 525
Minneapolis, MN 55416

SERVICE DATE: February 8, 2011

DOCKET NO. IP-6846/WS-10-798

In the Matter of the Application of Lake Country Wind Energy, LLC for a 41 Megawatt Large Wind Energy Conversion System in Kandiyohi and Meeker Counties

The above entitled matter has been considered by the Commission and the following disposition made:

Adopted the proposed Findings of Fact, Conclusions of Law, and Order prepared for the 41 MW Lake Country Wind Farm in Kandiyohi and Meeker counties.

Issued the proposed LWECS Site Permit for the 41 MW Lake Country Wind Farm to Lake Country Wind Energy, LLC.

The Commission agrees with and adopts the recommendations of the Office of Energy Security, as modified on January 27, 2011, which are attached and hereby incorporated in the Order.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS AND RECOMMENDATIONS OF THE OFFICE OF ENERGY SECURITY ENERGY FACILITY PERMITTING STAFF

DOCKET NO. IP6846/WS-10-798

Meeting Date: January 27, 2011 ..... Agenda Item # 4

Company: Lake Country Wind Energy, LLC

Docket No. IP6846/WS-10-798

In the Matter of the Application of Lake Country Wind Energy, LLC for a 41 Megawatt Large Wind Energy Conversion System in Kandiyohi and Meeker Counties.

Issue(s): Should the Commission grant a site permit to Lake Country Wind Energy, LLC for the 41 megawatt Lake Country Wind Farm?

OES Staff: Scott Ek ..... (651) 296-8813

Relevant Documents

Site Permit Application ..... August 4, 2010
Site Permit Application, Revised Appendix A (Figures) ..... September 16, 2010
Avian Impact Assessment ..... September 2010
William Bernard Letter ..... December 3, 2010
Minnesota Department of Natural Resources Letter ..... December 15, 2010
U.S. Fish and Wildlife Service Letter ..... December 15, 2010
Lake Country Energy Letter ..... January 6, 2011

The enclosed materials are work papers of the Office of Energy Security (OES) Energy Facility Permitting (EFP) staff. They are intended for use by the Minnesota Public Utilities Commission (Commission) and are based on information already in the record unless otherwise noted.

Documents Attached

- Figure 1 – Lake Country Wind Project Boundaries
- Proposed Findings of Fact, Conclusions of Law, and Order
- Proposed Draft Site Permit
- Exhibit List

Relevant documents and additional information can be found on eDockets (10-798) at: https://www.edockets.state.mn.us/EFiling/search.jsp or the Commission's Energy Facilities Permitting website at: http://energyfacilities.puc.state.mn.us/Docket.html?Id=29189.

Statement of the Issues

Should the Commission grant a site permit to Lake Country Wind Energy, LLC for the 41 megawatt Lake Country Wind Farm?

Introduction and Background

Lake Country Wind Energy, LLC (applicant or Lake Country) is a Minnesota Limited Liability Company formed for the purpose of developing the Lake Country Wind Energy Project. National Wind, LLC is the manager of the proposed project and currently owns a minority share of Lake Country Wind Energy, LLC.

Lake Country made application to the Minnesota Public Utilities Commission for a Large Wind Energy Conversion System (LWECS) site permit under the Wind Siting Act (Minnesota Statutes 216F) on August 4, 2010, which was accepted by the Commission on September 10, 2010. The application is for the construction, operation, and maintenance of a proposed 41 megawatt (MW) wind farm and associated facilities.

Project Location

The project area, as described in the site permit application, is irregular in shape and straddles the Kandiyohi and Meeker County line with U.S. Highway 12 bisecting the project area from east to west. The southern boundary approximates 15th Avenue SE and 30th Avenue SE in Kandiyohi County and 250th Street in Meeker County. The eastern boundary is one miles east of the Kandiyohi and Meeker County line or 525th Avenue in Meeker County. The northern-most boundary is one mile north of the boundary between Harrison and Gennessee townships in Kandiyohi County and 283rd Street in Meeker County. The western-most boundary is 120th Street in Kandiyohi County (*See* Figure 1).

Project Description

Lake Country proposes to construct the up to 41 MW wind farm on approximately 16,047 acres of agricultural land in Kandiyohi and Meeker counties, near the city of Atwater, Minnesota. Lake Country, in its site permit application, designated 16,047 acres of land as the project area. Upon completion of the project, approximately 19.4 acres of the 16,047 acres would be converted to turbines and associated infrastructure, as indicated by the applicant.

Lake Country anticipates using an array of 20 REpower 2.05 MW MM92 wind turbines. The turbines would consist of 328-foot towers with 269-foot diameter rotors for a maximum wind turbine height of 479 feet. The project would also require the following associated facilities as identified in the permit application:

- pad mount transformers;
- collection lines;
- supervisory control and data acquisition communication lines;
- a project substation with switching and protection equipment, metering equipment, a small control house, and a 48 K transformer;
- turbine access roads;
- one permanent meteorological tower; and
- an operations and maintenance facility (1 to 2 buildings with an approximate footprint of 3,000 to 5,000 square feet).

The project also includes two existing temporary meteorological towers that were permitted by Kandiyohi County. The project would interconnect to an existing Xcel Energy 69 kilovolt (kV) transmission line with a proposed project substation in section 6 of Acton Township in Meeker County (*See* Figure 1). The project is expected to generate between 139,480 MW hours and 142,747 MW hours annually.

In accordance with Minnesota Statutes, section 216B.1612, subdivision 2(g), the project qualifies as a community-based energy development project (C-BED). On February 17, 2009, the Meeker County Board of Commissioners indicated its support for the development of the Lake Country Wind Energy Project as a C-BED project.

Regulatory Process and Procedures

Pursuant to the Minnesota Wind Siting Act, a site permit from the Commission is required to construct a LWECS, which is any combination of a wind charger, windmill, or wind turbine and associated facilities with a combined nameplate capacity of 5 MW or more that converts wind energy to electric energy. The rules to implement the permitting requirement for LWECS are found in Minnesota Rules 7854.0100 to 7854.1500.

Site Permit Application and Acceptance

Lake Country filed a site permit application with the Commission for a LWECS on August 4, 2010. The Commission, in its Order issued September 10, 2010, accepted the application as complete and indicated that, based on the information in the record to date, a certificate of need is not required. Under Minnesota Rules 7854.1000, subpart 2, the Commission has 180 days to reach a final permit decision from the date an application is accepted.

Notice of Application Acceptance

On September 17, 2010, in accordance with Minnesota Rules 7854.0600, a notice of application acceptance was distributed to the county board and each city council and township board in each county of the proposed project site. A notice of application acceptance was published in the *West Central Tribune* on September 21, 2010, and the *Independent Review* on September 23, 2010. This notice was also published on eDockets and the Commission's Energy Facility Permitting website.

In addition, as a part of the notice requirements of Minnesota Rules 7854.0600, the applicant must also provide a copy of the application to each landowner within the proposed site, the Minnesota Historical Society, the regional development commission(s), the auditor of each county, and the clerk of each city and township within which the LWECS is proposed to be located. The applicant sent a site permit application to the above identified parties on September 17, 2010.

Energy Facility Permitting (EFP) staff also sent copies of the site permit application along with a cover memo requesting comments on the site permit application and the project to representatives from state and federal agencies that may have other permitting or review authority over the project.

Public Comment Period

EFP staff accepted public comments on the site permit application and on issues that should be considered in developing the draft site permit for this project through October 4, 2010. EFP staff received written comments from the Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Natural Resources (DNR), and the Minnesota Department of Transportation (Mn/DOT). EFP staff responses to the three comment letters were provided in its comments and recommendations to the Commission in conjunction with the request for issuance of a draft site permit.

Preliminary Determination on Draft Site Permit

In accordance with Minnesota Rules 7854.0800, the Commission shall make a preliminary determination on whether a permit may be issued or should be denied within 45 days after acceptance of the site permit application. On October 22, 2010, the Commission issued an Order authorizing a preliminary draft site permit and approved distribution of the proposed draft site permit for comment under the public participation process outlined in Minnesota Rules 7854.0900.

Public Participation Process

Public participation in the LWECS site permitting process is guided by Minnesota Rules 7854.0900. Notice of draft site permit availability and public information meeting was sent to all persons or agencies that received a copy of the site permit application, was published in the *EQB Monitor* (November 15, 2010), the *West Central Tribune* (November 17, 2010), and the *Independent Review* (November 18, 2010). The notice was also posted on eDockets and on the Commission's Energy Facility Permitting website.

Public Meeting

In compliance with Minnesota Rules 7854.0900, subpart 4, EFP staff held a public information meeting on December 1, 2010, at the Atwater Community Center in Atwater, Minnesota, to provide the public an opportunity to learn about the proposed project and the Commission's role in review and approval of LWECS, and to ask questions of the applicant and EFP staff. The meeting was also an opportunity for the public to offer comments on the site permit application and draft site permit, which serve as the environmental documents for the project.

Approximately 30 people attended the meeting. Questions were asked by seven attendees at the meeting with regards to the potential for negative health effects and appropriate setbacks, the state's LWECS permitting process, and general support for the project. A complete record of the meeting including all comments, questions, and answers is documented in the transcribed record of the public meeting.

Public Comment Period

A 30-day public comment period commencing with the notice of the draft site permit availability in the *EQB Monitor* and ending on December 15, 2010, afforded any interested person an opportunity to submit comments on either the site permit application or the draft site permit.

Contested Case Hearing

Minnesota Rules 7854.0900, subpart 5, provides the opportunity for any person to request that a contested case hearing be held on the proposed LWECS project. No request for a contested case hearing on the proposed project was submitted during the prescribed comment period.

Standard for Permit Issuance

The test for issuing a site permit for a LWECS is to determine whether a project is compatible with environmental preservation, sustainable development, and the efficient use of resources. Pursuant to Minnesota Statutes 216F.02, certain sections of Minnesota Statutes 216E (Minnesota Power Plant Siting Act) apply to siting LWECS, including section 216E.03, subdivision 7 (Considerations in designating sites and routes). Minnesota Statutes, section 216F.04(d) allows the Commission to place conditions in LWECS permits.

Staff Analysis and Comments

The EFP staff received 14 comment letters during a 30-day comment period on the Lake Country LWECS site permit application and draft site permit. Nine of the letters received indicated support for the proposed project citing the positive aspects of renewable energy and the potential economic benefits to the local economy. One of the letters was a response letter from the applicant. The remaining four letters included comments pertaining to the project or draft site permit and are summarized below with comments from EFP staff.

Health Effects, Property Value, and Setbacks

In his December 3, 2010, letter and in oral comments provided at the public meeting, Mr. William Bernard stated the concerns he has with the proposed project with regard to potential health effects, diminished property value, and appropriate setbacks. Mr. Bernard also indicated in his letter that he is currently a participating landowner. Mr. Bernard has a signed land and wind easement lease with the applicant, but is now requesting that no turbines be placed on the south one-half of section 28 of his property in Harrison Township.

> OES EFP Response: The preliminary turbine layout as identified in the site permit application does not place any turbines on the south one-half of section 28 in Harrison Township. In a letter dated December 14, 2010, the applicant points out that the preliminary turbine layout currently places two (2) turbines on Mr. Bernard's land (only the northern one-half of section 33 in Harrison Township). One turbine is located at least 1,500 feet from Mr. Bernard's shoreline along Diamond Lake and the other turbine is at least 1,500 feet from the nearest home in that area. The applicant also states its intent to further discuss the locations of the turbines which may result in modest changes in location of one or both of the turbines or could result in one or both of the turbines being relocated to other parcels should the project receive a permit.
>
> Issues such as noise and property values that were also raised by Mr. Bernard are discussed in the site permit application and Findings of Fact 62-66 (Noise) and 95-99 (Land-based Economies). The proposed site permit at Section 6.6 would also require that the applicant perform a post-construction noise study of the project.

Avian Issues

A Tier 1 and Tier 2 evaluation of a 340 MW footprint was initially conducted by the applicant, that included the current 41 MW project area. Lake Country used the results of its Tier 1 and Tier 2 evaluation to reduce the original 340 MW area of interest to the current 41 MW project area presented in the site permit application. Because the project area contains lake and wetland habitat that may be used as congregation areas by bird species protected by the Bald and Golden Eagle Protection Act or the Migratory Bird Treaty Act, including the bald eagle and other waterbirds, the applicant proceeded to Tier 3 of the USFWS Guidelines by preparing an Avian Impact Assessment to better understand potential risks within the project area. The Avian Impact Assessment concluded that the potential for adverse impacts to waterfowl, raptors, and most other bird species and their habitats is low.

The DNR in its December 15, 2010, comment letter suggests that an avian and bat protection plan that includes post-construction avian fatality surveys be developed by the applicant in coordination with the Commission and DNR targeting a limited area of six (6) turbines that are proposed to be located in the northwest portion of the project near Wheeler Lake (sections 33 and 34 of Harrison Township), an area of the project with higher avian species abundance and diversity.

The U.S. Fish and Wildlife Service (USFWS), in its December 15, 2010, comment letter also raises concern about the siting of turbines in close proximity to Wheeler and Summit lakes and the potential for negative effects on migratory birds within the project area, in particular American white pelicans and bald eagles. To reduce the potential impact to these species the USFWS recommends turbine setbacks from Wheeler and Summit lakes of one mile for the American white pelican and two miles for the bald eagle. However, if the recommended setbacks are not feasible, mitigation such as limiting the number of turbines or exercising seasonal turbine shutdowns should be taken into consideration.

The USFWS also recommends at least two years of post-construction avian mortality surveys targeted to areas where turbines are constructed within two miles of Wheeler and Summit lakes. Surveys should include work to establish potential trends in American white pelican avoidance of foraging areas if turbines are constructed within one mile of Wheeler or Summit Lakes. The USFWS suggests that the surveys also include monitoring to determine any new eagle nest activity near the proposed turbines and to document any changes in seasonal activity of bald eagles, in particular the Wheeler Lake area.

The applicant, in its letter of January 6, 2011, responding to the DNR and USFWS comments, concluded that, based on the information gathered in the Avian Impact Assessment and insufficient justification and inconsistency with the USFWS Guidelines, the DNR and USFWS recommendations should not be included as conditions of the Commission's site permit. Lake Country Wind Energy noted that it intends to prepare an Avian and Bat Protection Plan as a pre-construction measure and will coordinate development of that plan with the Commission and other agencies as deemed appropriate by OES.

> OES EFP Response: Based on the Avian Impact Assessment and recommendations from the DNR and USFWS, and responses from the applicant, EFP concludes that post-construction avian fatality surveys should be developed by the applicant in coordination with the Commission, DNR and the USFWS targeting a limited area of six (6) turbines that are proposed to be located in the northwest portion of the project near Wheeler Lake (sections 33 and 34 of Harrison Township), an area of the project with higher avian species abundance and diversity. There are currently no turbines proposed by the applicant that are south of Summit Lake, an additional area of concern pointed out by the USFWS. EFP staff does not believe the avian activity and avoidance studies recommended by the USFWS are appropriate as a permit condition, as the purpose of post-construction surveys is to verify fatality estimates. EFP, however, intends on looking at issues of activity and avoidance in consultation with the DNR and USFWS as part of future interagency workgroup efforts on avian and bat issues. Section 6.7 of the proposed permit provides that survey protocols and reporting be included in the Avian and Bat Protection Plan filed by the permittee and that the results of post-operation avian fatality surveys be submitted to the Commission.
>
> Section 13.1 of the proposed site permit requires a minimum of one (1) year of post-construction avian fatality surveys; however, the surveys could also be extended if the results show additional study is warranted following the USFWS Draft Guidelines for Wind Turbine Siting. As referenced in Section 13.1, the process for extending the surveys or imposing mitigation, such as curtailment, or alternate turbine location is outlined in Section 11.2 (Modification of Conditions). Findings 125 through 146 discuss potential impacts to wildlife and rare and unique natural resources.

Rare and Unique Natural Resources

According to a query of the DNR Natural Heritage Information System, recorded occurrences of rare and unique natural resources within the project area include two Minnesota County Biological Survey Sites of Moderate Biodiversity. One site is an area of Oak Forest located in the southeast corner of the project area in Acton Township section 17. The other site is a Mesic Prairie that contains the small white lady's slipper and is located in the northeast portion of the project area in Acton Township sections 5 and 8.[1]

[1] Ex. 1 at Appendix D, DNR June 16, 2010 Letter (Application).

The DNR in its December 15, 2010, comment letter suggests that to ensure that the above identified rare and unique resources continue to be avoided in future project micro-siting, the project boundaries should be moved to exclude all portions of the above identified sections to avoid the rare and unique natural resources located in those areas.

> OES EFP Response: There are currently no turbines sited or proposed by the applicant that would be located in Acton Township sections 5, 8, and 17 in Meeker County. The applicant in their permit application has instituted setbacks from the rare and unique natural resource areas located in the sections identified by the DNR, including setbacks from Shoreland Management Districts and wetlands in section 18, and right-of-way setbacks (railroad) in section 5 and 8. There are no plans by the applicant to site wind turbines or associated facilities in the identified sections. In addition, the site permit in sections 4.0 and 13.2 provide for appropriate setbacks to ensure proper siting of turbines and other infrastructure in relation to the known areas of rare and unique natural resources. Section 8.2 of the site permit also provides the Commission with the authority to adjust the final boundaries of the site required for the project after final design and completion of construction.

Snowmobile Trails

The DNR requests a permit condition to facilitate coordination with landowners and the DNR regarding DNR administered "Grant-in-Aid" snowmobile trails that would address possible safety concerns and a requirement that the applicant distribute micro-siting information to regional "Grant-in-Aid" trail contacts prior to project construction.

To address possible safety concerns the DNR suggests that the applicant distribute micro-siting information to regional "grant-in-aid" trail contacts prior to project construction.

> OES EFP Response: Approximately 9.3 miles of the Glacial Lakes Snowmobile Trail is located within the project area. The trail is a grant-in-aid snowmobile trail that receives grant funding from the DNR and is maintained by the E-Z Riders Sno Club. A portion of the trail has been designated as a primary corridor by the Minnesota United Snowmobilers Association.
>
> Grant-in-Aid trails are located on private property and their location can vary from year to year. The site permit does not address trails on private property; however, the applicant has contacted the E-Z Riders Sno Club to inform the club about the project. The applicant has indicated that there have been no concerns raised by the club and has indicated that Lake Country is committed to working with the club to address any concerns that may arise. Finding 105 addresses the concerns regarding the trail and the final micro-siting of wind turbines.

Minnesota Historical Society, State Historic Preservation Office

In its October 8, 2010, comment letter the Minnesota Historical Society State Historic Preservation Office (SHPO) recommends that an archaeological survey be completed for the proposed project area. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and should include an evaluation of National Register eligibility for any properties that are identified.

If the project area can be documented as previously disturbed or previously surveyed, SHPO will re-evaluate the need for a survey. Previously disturbed areas are those where the naturally occurring post-glacial soils and sediments have been recently removed.

> OES EFP Response: The applicant has indicated in the site permit application that a phase I pedestrian survey of proposed construction areas will be conducted to verify the existence of known cultural resources and to document previously undocumented cultural resources within the project area prior to the initiation of any land disturbance activities. The results of the phase I pedestrian survey will be used to identify and minimize impacts. In the event a cultural resource is encountered during the phase I pedestrian survey and it cannot be avoided, actions will be taken to comply with Section 106 of the National Historic Preservation Act, including coordinating identification and mitigation actions with the Minnesota State Historic Preservation Office in accordance with federal law and state law. Findings 107-109 address the issue of cultural and archaeological resources. See also proposed site permit condition section 6.3.

Local Government Involvement and WECS Standards

On January 5, 2010, the Meeker County Board of Commissioners notified the Commission that it passed a resolution to assume authority to permit Wind Energy Conversion Systems (WECS) less than 25 MW pursuant to Minnesota Statutes, section 216F.08. As allowed in Minnesota Statutes, section 216F.081, the county has adopted some standards more stringent than the General Permit Standards adopted by the Commission in January 2008, and include more stringent setback requirements from roads, trails and power lines, and other rights-of-way recorded with the county, structures other than homes or dwellings, USFWS Types III, IV, and V wetlands of five acres or greater, and Shoreland Management Districts. This statute directs the Commission to consider and apply the more stringent standards to LWECS issued by the Commission, unless the Commission finds good cause not to do so.

Kandiyohi County has not assumed delegation to permit WECS less than 25 MW or adopted LWECS standards, but does have a WECS Ordinance to regulate the installation and operation of WECS not otherwise subject to siting oversight by the State of Minnesota under the Power Plant Siting Act. Some of these WECS standards are more stringent than the General Permit Standards.

The draft site permit identified these more stringent standards in a special condition to allow for comment on whether these more stringent standards were appropriate for the site permit. Kandiyohi County did not provide comments regarding its WECS Ordinances during the prescribed comment periods for the project.

In a September 8, 2010, letter the Meeker County Highway Department requested that the applicant contact Meeker County Planning and Zoning to address its more restrictive zoning requirements. Meeker County requested that the applicant enter into a development agreement on the use and repair of roads under jurisdiction of the county and the protection of the public drainage system.

> OES EFP Response: EFP practice is to invite local units of government to the pre-construction meeting, and to provide opportunities for the local officials to participate in a location convenient to them, or by phone if that is their preference. The site permit, at Section 7.8 requires the permittee to notify the state, county or township governing boards having jurisdiction over roads, as well as the Commission, of the roads to be used during the construction of the project and to make satisfactory arrangements with those bodies. In addition, the site permit, at Section 10.5, provides that the applicant shall be responsible for acquiring any other federal, state, or local permits or authorizations that may be required to construct and operate a LWECS within the authorized site. The application of county standards is discussed in section 13.2 of the site permit, which includes more stringent setbacks from public rights-of-way, wetlands and structures other than homes, as well as zoning district exclusion areas. All of the more stringent standards of Meeker County and Kandiyohi County have been included.

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Based on the record of this proceeding, OES EFP staff concludes that the Lake Country Wind project meets the procedural requirements and the considerations and standards for issuance of a site permit identified in Minnesota statutes and rules. The site permit application and the record have been reviewed pursuant to the requirements of Minnesota Statutes 216F and Minnesota Rules 7854.

OES EFP staff has prepared for Commission consideration, proposed findings of fact, conclusions of law, and order; a proposed site permit; and exhibit list for the 41 MW Lake Country Wind project.

Proposed Findings of Fact

The proposed findings of fact address the procedural steps followed, describe the project, and address the environmental and other considerations of the project (Attached). The proposed findings of fact reflect some findings that were also made for other LWECS projects. The site considerations addressed in the proposed findings of fact (such as human settlement, public health and safety, noise, recreational resources, community benefits, effects on land based economies, archaeological and historical resources, wildlife, and surface water) track the factors described in the Commission's rules for other types of power plants that are pertinent to wind projects. The following outline identifies the categories of the proposed findings of fact.

Proposed Site Permit

EFP staff has prepared a site permit for the Commission's consideration (Attached). The conditions in this proposed site permit are consistent with conditions included in other LWECS site permits issued by the Commission. The proposed site permit is different from the draft site permit issued by the Commission. The site permit headings and requirements have been revised to reflect the new format consistent with recently issued permits and special conditions were added consistent with the findings for this project. The Special Conditions Section includes the more stringent standards required by the respective counties.

Exhibit List

EFP staff has prepared an exhibit list of documents that are part of the record in this permit proceeding (Attached).

Commission Decision Options

A. Lake Country Wind Farm Findings of Fact, Conclusions of Law, and Order

1. Adopt the proposed Findings of Fact, Conclusions of Law, and Order prepared for the 41 MW Lake Country Wind Farm in Kandiyohi and Meeker counties.

2. Amend the proposed Findings of Fact, Conclusions of Law, and Order as deemed appropriate.

3. Make some other decision deemed more appropriate.

B. LWECS Site Permit for the 41 MW Lake Country Wind Farm

1. Issue the proposed LWECS Site Permit for the 41 MW Lake Country Wind Farm to Lake Country Wind Energy, LLC.

2. Amend the proposed LWECS Site Permit as deemed appropriate.

3. Deny the LWECS Site Permit.

4. Make some other decision deemed more appropriate.

OES EFP Staff Recommendation: The staff recommends options A1 and B2.

Sources:
Municipality Boundaries - MN Department of Natural Resources, 2008
Township Boundaries - MN Department of Natural Resources, 2008
Sections - MN Department of Natural Resources, 2008
Aerial Imagery - Farm Service Administration, 2009

Green Lake
Harrison
Swede Grove
Kandiyohi
Gennessee
Acton
Meeker

41st Ave
45th Ave
105th St
120th St
135th St
165th St
180th St
195th St
202nd St
525th Ave
295th St
283rd St
280th St
30th Ave
38th Ave
4th St
US Hwy 12
Atlantic Ave
2nd St
Lincoln St
Main St
3rd St
6th St
7th St
187th St
1st Ave
County Hwy 4 SE
260th St
250th St
Kandi-meeker Rd
255th St
248th St
245th St
135th Ave
172nd St
15th Ave
37th Ave
157th St
41st Ave
County Hwy 23
515th Ave

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

Legend
- Project Substation & Interconnection Point
- Project Area
- Municipalities
- Townships
- Sections
- Preliminary REpower Turbine Locations

MALCOLM PIRNIE

LAKE COUNTRY Wind Energy

LAKE COUNTRY WIND ENERGY, LLC

LARGE WIND ENERGY CONVERSION SYSTEM

Site Permit Boundary and Preliminary Turbine Layout

0 3,500 7,000 Feet

SCALE: 1" = 3,500'

Docket IP6846/WS-10-798

ATTACHMENT 1

IN THE MATTER OF THE APPLICATION BY LAKE COUNTRY WIND ENERGY, LLC FOR A SITE PERMIT FOR A 41 MEGAWATT LARGE WIND ENERGY CONVERSION SYSTEM AND ASSOCIATED FACILITIES IN KANDIYOHI AND MEEKER COUNTIES

EXHIBIT LIST
PUC Docket No. IP6846/WS-10-798

Exhibit Number	Document Date	eFile Date	Description	eDockets Number
1.	08/04/10	08/04/10	Site Permit Application	20108-53241-01 20108-53241-02 20108-53241-03 20108-53241-04 20108-53241-05 20108-53241-06 20108-53241-07 20108-53241-08
2.	08/27/10	08/27/10	Notice of Commission Meeting (Application Acceptance)	20108-53911-04
3.	09/08/10	09/01/10	Comments and Recommendations of the Office of Energy Security Energy Facility Permitting Staff (Application Acceptance)	20109-54030-01
4.	09/10/10	09/10/10	Commission Order (Application Acceptance)	20109-54322-01 20109-54322-02
5.	09/10/10 09/16/10	09/10/10 09/16/10	Compliance Filing (Revised Site Permit Maps)	20109-54345-01 20109-54528-01

Exhibit Number	Document Date	eFile Date	Description	eDockets Number
6.	09/17/10	09/17/10	Notice of Site Permit Application Acceptance	20109-54581-01
7.	09/16/10	09/16/10	Letter and Copy of Site Permit Application to State Technical Representatives	20109-54537-01
8.	---	10/01/10 12/29/10	Public Comments on Site Permit Application	201010-55073-01 201012-57968-01
9.	10/01/10	10/01/10	Notice of Commission Meeting (Draft Site Permit)	201010-55058-04
10.	09/21/10 09/23/10	10/06/10	Published Notice of Site Permit Application Acceptance (*West Central Tribune* and the *Independent Review*)	201010-55216-01
11.	10/14/10	10/07/10	Comments and Recommendations of the Office of Energy Security Energy Facility Permitting Staff (Draft Site Permit)	201010-55263-01
12.	10/14/10 10/14/10	10/14/10 11/01/10	Errata to Comments and Recommendations and Final Revised Comments and Recommendations	201010-55589-01 201011-56053-01
13.	10/22/10	10/22/10	Commission Order (Draft Site Permit)	201010-55710-01 201010-55710-02
14.	11/02/10	11/02/10	Notice of Draft Site Permit and Public Information Meeting	201011-56121-01
15.	11/04/10	11/05/10	Avian Impact Assessment	201011-56253-01 201011-56253-02 201011-56253-03

Exhibit Number	Document Date	eFile Date	Description	eDockets Number
16.	11/15/10	11/23/10	Published Notice of Draft Site Permit and Public Information Meeting (*EQB Monitor*)	201011-56773-02
17.	11/17/10 11/18/10	11/23/10	Published Notice of Draft Site Permit and Public Information Meeting (*West Central Tribune* and the *Independent Review*)	201011-56773-01
18.	---	12/16/10	Public Comment Letters	201012-57555-01
19.	12/01/10	12/16/10	Public Meeting Oral Comments	201012-57554-01
20.	09/2010	01/07/11	Avian Impact Assessment (Public Version)	20111-58287-01
21.	09/08/10	09/09/10	Meeker County Highway Department Letter	20109-54262-01
22.	01/06/10	01/07/10	Lake Country Wind Energy Letter	20111-58214-01

STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION

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Thomas Pugh	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Application of Lake Country Wind Energy, LLC for a Site Permit for a 41 Megawatt Large Wind Energy Conversion System and Associated Facilities in Kandiyohi and Meeker counties	ISSUE DATE: February 8, 2011 DOCKET NO. IP6846/WS-10-798 FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER ISSUING A SITE PERMIT TO LAKE COUNTRY WIND ENERGY, LLC FOR THE LAKE COUNTRY WIND PROJECT

The above entitled matter came before the Minnesota Public Utilities Commission (Commission) pursuant to an application submitted by Lake Country Wind Energy, LLC (Applicant or Lake Country) for a site permit to construct, operate, maintain and manage a 41 megawatt (MW) nameplate capacity Large Wind Energy Conversion System (LWECS) and associated facilities, in Kandiyohi and Meeker counties.

Lake Country anticipates using an array of 20 REpower 2.05 MW MM92 wind turbines, each consisting of a 328-foot tower with 269-foot diameter rotors for a maximum turbine height of 479 feet. The project will also require the following associated facilities as identified in the site permit application: pad mount transformers; collection lines; supervisory control and data acquisition (SCADA) communication lines; a project substation with switching and protection equipment, metering equipment, a small control house and a 48 kilovolt (kV) transformer; turbine access roads; two temporary meteorological towers and one permanent meteorological tower; and an operations and maintenance facility (1 to 2 buildings with an approximate footprint of 3,000 to 5,000 square feet).

The project will interconnect to an existing Xcel Energy 69 kV transmission line with a project substation to be located in section 6 of Acton Township in Meeker County. The proposed project is expected to generate between 139,480 MW hours and 142,747 MW hours annually.

STATEMENT OF ISSUE

Should Lake Country Wind Energy, LLC be granted a site permit under Minnesota Statutes, section 216F.04 to construct a 41 MW Large Wind Energy Conversion System and associated facilities in Kandiyohi and Meeker counties?

Based upon the record created in this proceeding, the Minnesota Public Utilities Commission makes the following findings:

FINDINGS OF FACT

Background and Procedure

1. On August 4, 2010, Lake Country Wind Energy, LLC filed a site permit application with the Commission for up to 41 MW of nameplate wind power generating capacity and associated facilities identified as the Lake Country Wind Energy Project (project), in Kandiyohi and Meeker counties.[1]

2. On August 27, 2010, a notice of commission meeting was sent to individuals on the Commission's service list, the Department of Commerce mailing list, and to representatives from state and federal agencies with permitting or review authority.[2]

3. Office of Energy Security (OES) Energy Facility Permitting (EFP) staff reviewed and determined that the site permit application complied with the requirements of Minnesota Rules 7854.0500, as indicated in its comments and recommendations to the Commission dated September 8, 2010.[3]

4. On September 9, 2010, the Commission issued its Order accepting the site permit application as complete for the project with a condition that the Applicant submit revised site maps that exclude the city of Atwater from the project boundaries.[4]

5. On September 10 and 16, 2010, the Applicant filed revised site maps (Appendix A of the site permit application) that exclude the city of Atwater from the proposed project boundaries.[5]

[1] Ex. 1 (Application).
[2] Ex. 2 (Notice of Commission Meeting).
[3] Ex. 3 (Comments and Recommendations).
[4] Ex. 4 (Order - Application Acceptance).
[5] Ex. 5 (Compliance Filing).

6. On September 17, 2010, the Applicant mailed a notice of application acceptance that also requested public comment on issues that should be considered in developing a draft site permit for the project and items that may be missing or mischaracterized in the site permit application in accordance with Minnesota Rules 7854.0600, subpart 2.[6] The Applicant also mailed a notice of application acceptance and a copy of the site permit application on compact disk to landowners within the proposed project boundaries and agencies as identified in Minnesota Rules 7854.0600, subpart 3.[7]

7. The Applicant mailed notice of application acceptance and a hard copy of the site permit application to the auditor's offices in Kandiyohi and Meeker counties; the city of Atwater; Acton, Harrison and Gennessee townships; and the city of Atwater public library in accordance with Minnesota Rules 7854.0600, subpart 3.[8]

8. The Applicant published a notice of site permit application acceptance in the *West Central Tribune* on September 21, 2010, and the *Independent Review* on September 23, 2010, in accordance with Minnesota Rules 7854.0600, subpart 2.[9]

9. On September 16, 2010, EFP staff sent a copy of the site permit application on compact disk to state and federal agency representatives to solicit comments on issues that should be considered in developing a draft site permit for the project.[10]

10. Public comments on the site permit application and issues to consider in the development of a draft site permit were accepted until October 4, 2010. EFP staff received written comments from the Minnesota Department of Natural Resources (DNR), the Minnesota Pollution Control Agency (MPCA), and the Minnesota Department of Transportation (Mn/DOT).[11] EFP staff responses to the three comment letters were provided in its comments and recommendations to the Commission in conjunction with the request for issuance of a draft site permit.[12]

11. On October 1, 2010, a notice of commission meeting was sent to individuals on the Commission's service list, the Department of Commerce mailing list, and to the technical representatives from state and federal agencies with permitting or review authority.[13]

12. EFP staff recommended that a draft site permit be issued for the project and requested the authority to distribute the proposed draft site permit for public comment and to implement the public participation process under Minnesota Rules 7854.0900 in its comments and recommendations to the Commission dated October 14, 2010.[14]

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[6] Ex. 6 (Notice of Acceptance).
[7] Ex. 6 (Notice of Acceptance).
[8] Ex. 6 (Notice of Acceptance).
[9] Ex. 10. (Published Notice of Acceptance).
[10] Ex. 7 (Site Permit Application to Agency Representatives).
[11] Ex. 8 (Public Comments).
[12] Ex. 11 (Comments and Recommendations). Ex. 12 (Errata and Revised Comments and Recommendations).
[13] Ex. 9 (Notice of Commission Meeting).
[14] Ex. 11 (Comments and Recommendations). Ex. 12 (Errata and Revised Comments and Recommendations).

13. On October 22, 2010, the Commission issued an Order authorizing a preliminary draft site permit and approved distribution of the proposed draft site permit for comment under the public participation process outlined in Minnesota Rules 7854.0900.[15]

14. On November 2, 2010, EFP staff issued notice of draft site permit issuance and public information meeting. The notice met the requirements of Minnesota Rules 7854.0900, subpart 1. This notice was posted on eDockets, the Commission website, and was sent to individuals on the Department of Commerce mailing list.[16]

15. On November 2, 2010, EFP staff distributed hard copies of the draft site permit to state and federal agency representatives, the Minnesota Historical Society, Kandiyohi County, Meeker County, the city of Atwater, Acton Township, Gennessee Township, Harrison Township, and the Atwater Public Library.[17]

16. Pursuant to Minnesota Rules 7854.0900, subpart 2, notice of draft site permit issuance and public information meeting was published in the *EQB Monitor* (Volume 34, Number 23) on November 15, 2010.[18]

17. The Applicant, on behalf of EFP staff, published notice of draft site permit issuance and public information meeting in the *West Central Tribune* (November 17, 2009) and the *Independent Review* (November 18, 2010) in compliance with Minnesota Rules 7854.0900, subpart 2.[19]

18. On December 1, 2010, in accordance with Minnesota Rules 7854.0900, subpart 4., EFP staff conducted a public information meeting at the Atwater Community Center in Atwater, Minnesota, to provide the public an opportunity to learn about the project and the Commission's role in review and approval of LWECS, and to ask questions of the Applicant and EFP staff. The meeting was also an opportunity for the public to offer comments on the application and draft site permit, which serve as the environmental documents for the project. Approximately 30 people attended the meeting.

19. Questions were asked and statements were made by seven attendees at the meeting with regards to the potential for negative health effects and appropriate setbacks, the state's LWECS permitting process, and general support for the project. A complete record of the meeting including all comments, questions, and answers is documented in the public meeting transcript. A transcribed oral record of the meeting was posted on eDockets.[20]

[15] Ex. 13 (Order – Draft Site Permit).
[16] Ex. 14 (Notice of Draft Site Permit and Public Meeting).
[17] Ex. 14 (Notice of Draft Site Permit and Public Meeting).
[18] Ex. 16 (Notice of Draft Site Permit and Public Meeting - *EQB Monitor*).
[19] Ex. 17 (Published Notice of Draft Site Permit and Public Meeting).
[20] Ex. 19 (Public Meeting Oral Comments).

20. Public comments on the content of the draft site permit and completeness of the site permit application were accepted during a 30-day public comment period commencing with the notice of the draft site permit availability in the *EQB Monitor* and ending on December 15, 2010, and afforded any interested person an opportunity to submit comments on either the site permit application or the draft site permit. EFP staff received 14 written comment letters during the comment period.[21]

Certificate of Need

21. The project does not meet the definition of a large electric power generating plant, as it is less than 50 MW in nameplate capacity and will connect to an existing 69 kV transmission line; therefore, a certificated of need is not required.[22]

Applicant

22. Lake Country is a Minnesota Limited Liability Company formed by National Wind, LLC, in partnership with residents in the vicinity of the project for the purpose of developing the Lake Country Wind Energy Project. National Wind, LLC is the manager of the project and currently owns a minority share of Lake Country Wind Energy, LLC.[23]

Interconnection Agreement

23. Lake Country does not have an interconnection agreement in-place at this time. A 41 MW interconnection agreement request was filed by the Applicant for the Atwater substation, securing queue position H067. The interconnection request is currently being studied by the Midwest Independent System Operator (MISO).[24]

Project Description

24. The project would consist of up to 20 REpower 2.05 MW MM92 wind turbine generators with the total project output not to exceed 41 MW.[25]

25. The wind turbines will be mounted on 328-foot single pedestal conical steel towers. The turbine rotor diameter will be 269 feet for a maximum wind turbine height of 479 feet.[26]

[21] Ex. 18 (Public Comment Letters).
[22] Minnesota Statutes 216E.01, subdivision 5, and Minnesota Statutes 216B.243.
[23] Ex. 1 at p. 1-1 (Application).
[24] Ex. 1 at p. 5-7 (Application).
[25] Ex. 1 at p. 1-1 (Application).
[26] Ex. 1 at p. 5-5 (Application).

26. Associated project facilities will include: pad mount transformers; collection lines; SCADA communication lines; a project substation with switching and protection equipment, metering equipment, a small control house and a 48 kV transformer; turbine access roads; two temporary meteorological towers and one permanent meteorological tower; and an operations and maintenance facility consisting of 1 to 2 buildings with an approximate footprint of 3,000 to 5,000 square feet and an adjacent gravel parking lot.[27]

27. The power generated by each turbine will be collected and transformed at the turbine pad from 575 V to 34.5 kV using a 2,100 kilovolt-ampere pad mounted step-up transformer. The turbines will be interconnected via buried communication cables, 34.5 kV electrical collector lines, and junction boxes within the project area. The turbine arrangement is such that each of the two collector lines will carry the power from 10 turbines. Cables and collectors will be buried adjacent to access roads when practicable and will be sited entirely on land under easement, with the exception of road crossings. The collectors will be buried to a depth of 48 inches to minimize risk of the line being struck during soil alteration practices including agricultural and otherwise. The project's collector lines will converge at the proposed 69 kV project substation.[28] The placement of collector and feeder lines is addressed in the proposed site permit at section 4.15.

28. A computer-controlled SCADA communications system that permits automatic, independent operation and remote supervision will be used to simultaneously control the wind turbines. Each turbine will be programmed to operate autonomously and will do so under normal conditions. The turbines will continuously communicate with a SCADA system that monitors turbine operation and energy production. The SCADA system collects data on wind turbine generation, availability, alarms and communication error information, and meteorological and communications data.[29]

29. Turbine foundations will be designed by a licensed structural/geotechnical engineer in accordance with the manufacturer's specifications. Based on preliminary analysis of soil properties within the project area a spread-type foundation will be utilized. The spread-type foundation is an octagon-shaped concrete and steel reinforced foundation that is approximately seven (7) feet in height and 58 feet in diameter. A pedestal and steel ring approximately 20 feet in diameter and three (3) feet in height will extend from the center of the foundation and will be used to mount the turbine towers. A 35 foot diameter gravel work area will also be built at the base of each turbine.[30] Site geotechnical conditions and turbine tower load specifications will ultimately dictate final foundation design.[31]

[27] Ex. 1 at p. 5-1 (Application).
[28] Ex. 1 at p. 5-8 (Application).
[29] Ex. 1 at p. 5-9 (Application).
[30] Ex. 1 at p. 5-7 (Application).
[31] Ex. 1 at p. 5-6 (Application).

30. Turbine assembly will require an approximate 40 foot by 120 foot gravel crane pad area extending from the access roads to the turbine foundation. Component lay down and assembly areas approximately 260 feet by 335 feet will be properly graded and centered near the turbine foundations. Upon completion of construction, gravel from temporary roads, crane pads and lay down areas will be removed and the areas will be restored to pre-construction conditions.[32]

31. Permanent roads will be built to allow access to wind turbines and meteorological towers during and after construction. Access roads will be sited to minimize the impact to existing and future land use activities adjacent to the roads, and to minimize the amount of roads constructed for the project. The access roads will meet local and state requirements and will consist of a gravel surface, underlain with geotechnical fabric, if necessary, and will be approximately 16 feet wide. Access roads will have a low profile to allow farm machinery to cross and will also include appropriate drainage and culverts. Roads will be sited in coordination with local landowners.[33] See proposed permit condition section 7.8.

32. Siting and construction of the turbines and access roads will require some grading of the project area. Slopes greater than 12 percent will be avoided whenever practicable due to potential constructability and erosion issues.[34]

33. Turbines and access roads will be sited to take into account the contours of the land and prime farmland locations to minimize impact. A soil erosion and sediment control plan and a stormwater pollution prevention plan will be prepared prior to project construction. Erosion and sediment control measures, including silt fence, temporary mulch, and any required temporary seeding, will be used during construction. The topsoil will be separated and stockpiled where the roads and turbines are constructed and then restored to the disturbed areas. The separation of topsoil prior to construction is expected to minimize the impacts of soil compaction. Turbines will be sited to minimize impacts to prime agricultural land to the extent practicable. Topsoil will be salvaged when practicable.[35] The site permit at section 7.9.2 requires a soil erosion and sediment control plan and stormwater pollution prevention plan.

[32] Ex. 1 at p. 5-7 (Application).
[33] Ex. 1 at p. 5-7 (Application).
[34] Ex. 1 at p. 6-26 (Application).
[35] Ex. 1 at p. 6-27 and 6-28 (Application).

34. There are two temporary meteorological towers permitted by Kandiyohi County currently located on the project site, one 196.9-foot tower and one 328-foot tower. The temporary meteorological towers have been collecting site wind data since September 2008 and July 2010, respectively.[36] The Applicant will also construct a new permanent 262-foot meteorological tower upon completion of project construction. The tower will be equipped with datalogger connected to calibrated anemometers, wind direction sensors, and temperature probes that can be configured at 263, 230, 197 -foot levels. The ground area required to install the meteorological towers is approximately 341 feet by 384 feet. An access road will also be required for the meteorological tower.[37]

35. Coordination with the MISO and Xcel Energy resulted in the need to construct a project substation, which will serve as the project's interconnection point. The project substation will be adjacent to, and will interconnect directly with Xcel Energy's existing 69 kV transmission line and will be located south of 30th Avenue NE on the east side of 210th Street NE in section 6 of Acton Township, Meeker County. The use of the existing 69 kV line will preclude the need for construction of feeder lines or a new above ground transmission line for the project.[38]

36. The project substation footprint is expected to encompass approximately 0.3 acres and will include associated switching and protection equipment as well as metering equipment and a small control house. The project substation is expected to consist of one nominally rated 48 kV maximum continuous operating voltage transformer. The substation will conform to MISO standards and will be finalized when MISO completes the facility study.[39]

37. Lake Country intends to enter into one or more 20-year power purchase agreements (PPAs) with utility off-takers for the sale of power generated from the project. Lake Country expects a commercial operation date on or before December 31, 2012.[40]

38. Lake Country has estimated the capital cost for the wind farm to be approximately $81,500,000. The actual capital cost will be dependent on final costs associated with interconnection, infrastructure, turbines, electrical collection systems, as well as costs associated with development, engineering, permitting, procurement, and construction.[41]

[36] Ex. 1 at pp. 4-1 and 4-2 (Application).
[37] Ex. 1 at pp. 5-6 and 5-7 (Application).
[38] Ex. 1 at p. 5-8 (Application).
[39] Ex. 1 at p. 5-8 (Application).
[40] Ex. 1 at p. 1-1 (Application).
[41] Ex. 1 at p. 9-1 (Application).

39. Lake Country estimates operating costs of the project to be approximately $1.5 million per year while the turbines are under warranty (first two years of operation). Operating costs will range from approximately $2 to $2.8 million per year after the warranty expires. Operating costs include costs associated with land lease payments, insurance, energy production tax, royalties, electric usage, management and financing fees, and operations and maintenance.[42]

40. Construction, operation, and maintenance of the proposed wind plant will comply with all of the required federal and state permit requirements. See proposed site permit conditions at section 7.0.

Operation and Maintenance

41. Lake Country will enter into a contractual agreement with REpower to provide service to operate and maintain the turbines for three years, which includes the 2-year warranty period. When the warranty period ends, Lake Country will contract a qualified operations and maintenance contractor for the continued operation and maintenance of the project. The project's operations manager will oversee all maintenance, management, and service activities of the turbines and supporting facilities to ensure the utility interconnection is sound and the response to turbine outages is timely.[43]

42. The first service inspection will occur two months after the turbines are commissioned, followed by routine semi-annual service inspections commencing six months after the first inspection. On-site service and maintenance activities include routine inspections, regular preventative maintenance on all turbines and related facilities. The project's maintenance crew will also be responsible for unscheduled maintenance and repair, and routine minor maintenance on the wind turbines, electrical power systems, and communications systems. The project's operations manager will be responsible for coordinating with local government agencies to ensure compliance with local ordinances including management of lubricants, solvents, and other hazardous materials. [44]

Decommissioning and Restoration

43. The decommissioning and restoration plan for the project will be prepared in accordance with the requirements of Minnesota Rules 7836.0500, subpart 13. Lake Country anticipates the life of the project will be between 20 to 30 years. As the project reaches the design life of the turbines, issues of decommissioning versus repowering will be evaluated. If Lake Country decides to decommission rather than repower it will do so within 12 months of the facility ceasing to operate.[45]

[42] Ex. 1 at p. 9-1 (Application).
[43] Ex. 1 at p. 8-1 (Application).
[44] Ex. 1 at p. 8-1 (Application).
[45] Ex. 1 at p. 12-1 (Application).

44. Lake Country will be responsible for all costs to decommission the project and associated facilities. Upon termination of the project, Lake Country will dismantle and remove all towers, turbine generators, transformers, underground cables, foundations and ancillary facilities to a depth of four feet below the ground surface unless Lake Country and the affected landowner agree, in writing, to no removal or removal to a depth less than four feet. Access roads will be removed unless written approval is given by the affected landowner that portions or all of the affected roads may be retained. Lake Country will restore and reclaim the site to its pre-project topography to the extent possible. Restoration activities will be completed within 12 months of the date of termination.[46]

45. As provided in section 9.0 of the proposed site permit, the Applicant will ensure that it carries out its obligations to provide for the resources necessary to fulfill its requirements to properly decommission the project at the appropriate time. Section 9.0 requires the Applicant to submit documentation of a decommissioning plan to the Commission prior to the pre-operation compliance meeting. In addition to any requirements under the site permit, each individual land lease requires proper decommissioning of turbines. The Applicant will be responsible for all costs to decommission the project and associated facilities.

Project Site

46. The Applicant has designated approximately 16,047 acres of agricultural land in Kandiyohi and Meeker counties, near the city of Atwater, Minnesota, as the project area. The landscape within and around the project site is mainly rural open cropland with relatively flat terrain. Upon completion of the project, approximately 19.4 acres of the 16,047 acres would be converted to turbines and associated infrastructure.[47]

47. The project area is irregular in shape and straddles the Kandiyohi and Meeker county line with U.S. Highway 12 bisecting the project area from east to west. The southern boundary approximates 15th Avenue SE and 30th Avenue SE in Kandiyohi County and 250th Street in Meeker County. The eastern boundary is one miles east of the Kandiyohi and Meeker County line or 525th Avenue in Meeker County. The northern-most boundary is one mile north of the boundary between Harrison and Gennessee townships in Kandiyohi County and 283rd Street in Meeker County. The western-most boundary is 120th Street in Kandiyohi County.[48] Specifically the project area encompasses some or all parts of sections 1-4, 7, 10-12, 13-18, 19-21, 24 and 29 of Gennessee Township; sections 33-36 of Harrison Township; sections 5-8, 17 and 18 of Acton Township.[49]

[46] Ex. 1 at p. 12-1 (Application).
[47] Ex. 1 at p. 1-1 (Application).
[48] Ex. 1 at p. 4-1 (Application).
[49] Ex. 1 at Appendix A, Figure 1 (Application).

Wind Resource Considerations

48. The Applicant has conducted an assessment of wind characteristics in the project area. The assessment was conducted using WindPro software and utilized wind data that was collected onsite at a 197 foot temporary meteorological tower located in section 35 of Harrison Township, Minnesota. The temporary meteorological tower has been collecting continuous wind data at the site since September 2008.[50]

49. Information provided by the Applicant and contained in the site permit application indicates that the wind speeds at 197 feet above ground level in the project area average 14.23 to 14.43 miles per hour (mph) with an average annual estimated wind speed of 14.36 mph, which classifies the proposed project as a Class III wind site. Regionally, the prevailing wind directions are generally north northwest and west northwest. Typically the highest wind speeds occur in the spring and winter months, decreasing during the summer months. Diurnal conditions with regards to wind speeds at the proposed site are generally lowest in the morning and begin to increase through afternoon and after sunset.[51]

50. Due to the relatively uncomplicated and flat terrain of the project area, significant variation in wind speed is not anticipated. In general, the turbulence intensity for this area of Minnesota is anticipated to be low. Extreme wind speeds may occur with winds from any of the prevailing directions and may happen during any season. The predicted 100-year event for the project area is 83.9 miles per hour. The REpower 2.05 MW MM92 extreme weather loading limits as calculated by the manufacturer is 133 mph, well within the range of the Project Area extremes.[52] Other extreme weather conditions in this area are occasional and include hail, ice storms, lightning, tornados and severe thunderstorms. Due to the low frequency and short duration of these conditions, minimal effects are expected on turbine performance.

51. The Applicant indicates the turbines will be spaced at a minimum of five rotor diameters in the prevailing wind direction and three rotor diameters in the non-prevailing wind direction. As depicted in Appendix C of the site permit application, the turbines would generally be arranged and sited in three linear arrays paralleling the east-west roads within the proposed project area. The turbines are typically oriented west-southwest to east-northeast, which is roughly perpendicular to the prevailing south and northwest winds. Turbine placement, aside from other resource features where setbacks or wind access buffers are required, will be designed to provide sufficient spacing between the turbines to minimize internal wake losses. Greater or lesser spacing between the turbines or turbine strings may be used in areas where the terrain and other factors dictate the spacing. This is addressed in the proposed site permit at section 4.0.

[50] Ex. 1 at p. 4-1 (Application).
[51] Ex. 1 at pp. 4-1 to 4-6 (Application).
[52] Ex. 1 at p. 4-3 (Application).

52. Lake Country has assessed the potential energy yield from the project using wind data collected at its meteorological tower and the current wind turbine design. The project is expected to generate 139,480 to 142,747 MW hours annually using the 20 REpower 2.05 MW MM92 turbines.[53]

Wind Rights and Easement Agreements

53. Lake Country started the project in 2008, and has received commitments for wind rights on over 13,124 acres of privately owned land within the project area. The existing land rights encompass 80 percent of the project area and are more than sufficient to site the 41 MW of wind turbines proposed for the project. The wind rights were obtained via a combination of easements and participation agreements. Sixty-six landowners owning 167 parcels consisting of 12,819 acres within the project area have signed easements with Lake Country. The easements include full easements over 12,526 acres owned by 64 landowners, participation agreements over 294 acres owned by three landowners and 108 acres pending the negotiation of an easement with one landowner. Both the easement and the participation agreement allow for 30 years of project operation with options to operate the project an additional 20 years. Additional agreements may allow easements for collector lines, access roads, and other infrastructure needed for the project.[54]

Siting Criteria

54. Minnesota Statutes 216F and Minnesota Rules 7854 apply to the siting of LWECS. The rules require an applicant to provide a substantial amount of information to allow the Commission to determine the potential environmental and human impacts of a proposed project and whether the project is compatible with environmental preservation, sustainable development, and the efficient use of resources.[55] Pursuant to Minnesota Statutes, section 216F.02, certain sections in Minnesota Statutes, chapter 216E (Minnesota Power Plant Siting Act) apply to siting LWECS, including section 216E.03, subdivision 7 (Considerations in Designating Sites and Routes). The analysis of the environmental impacts required by Minnesota Rules 7854.0500, subpart 7, satisfies the environmental review requirements; no environmental assessment worksheet or environmental impact statement is required for a proposed LWECS project. Therefore, environmental review is based on the site permit application and the record. The following analysis addresses the relevant considerations to be applied to a LWECS project.

[53] Ex. 1 at p. 11-1 (Application).
[54] Ex. 1 at pp. 4-5 and 4-6 (Application).
[55] Minnesota Statutes 216F.03 and Minnesota Rules 7854.0500.

Demographics/Human Settlement

55. The site is in an area of relatively low population density, which is characteristic of rural areas throughout Minnesota. Kandiyohi County covers approximately 864 square miles and is comprised of 12 cities including Atwater, Blomkest, Kandiyohi, Lake Lillian, New London, Pennock, Prinsburg, Raymond, Regal, Spicer, Sunburg, and Willmar and 24 townships. Meeker County covers approximately 646 square miles and is comprised of nine cities including Cedar Mills, Cosmos, Darwin, Dassel, Eden Valley, Grove City, Kingston, Litchfield, and Watkins and 17 townships.[56]

56. Population densities in the project area are 0.09 people per square mile in Acton Township, 0.07 people per square mile in Gennessee Township, and 0.05 people per square mile in Harrison Township. The population of the city of Atwater, which is not part of the project, but lies within the project area, was estimated at 1,079 in 2000.[57]

57. The median household income in Meeker County in 2008 was $50,127 per year, 13 percent below the state average for that year. The percentage of families below the poverty level was 7.2 percent, less than 1 percent above the state average for 2008. The median household income in Kandiyohi County in 2008 was $50,876 per year, 12 percent below the state average for that year. The percentage of families below the poverty level during the previous 12 months was 6.9 percent, less than one-half a percent above the state average for 2008. [58]

58. The Applicant has instituted a minimum setback of 1,200 feet to any residence within and adjacent to the project area, whether that landowner is a participating or a non-participating landowner.[59]

59. The Applicant will be required to setback its turbines a minimum of five rotor diameters (1,517 feet) on the prevailing wind axis (north-south) and three rotor diameters (910 feet) on the non-prevailing wind axis (east-west) from non-participating landowner's property lines.[60]

60. The Applicant will comply with the Meeker County Wind Ordinance that require turbines to be setback 489 feet (1 x total turbine height plus 10 feet) from all rights-of-way. The Applicant has also instituted a stricter setback of 528 feet (1.1 x total turbine height) from all roads in the project area, except township roads in Kandiyohi where the setback will be 400 feet and will also avoid private rights-of-way.[61]

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[56] Ex. 1 at p. 6-1 (Application).
[57] U.S. Census Bureau. Table DP-1 Profile of General Demographic Characteristics: 2000. http://www.census.gov (Accessed 12/10/10).
[58] Ex. 1 at pp. 6-1 and 6-2 (Application).
[59] Ex. 1 at p. 5-2 (Application).
[60] Ex. 1 at p. 5-3 (Application).
[61] Ex. 1 at p. 5-3 (Application).

61. There will be no displacement of existing residences or structures in siting the wind turbines and associated facilities.

Noise

62. The Applicant's proposed project design will be required to comply with the Minnesota Pollution Control Agency (MPCA) noise standards.[62] These standards describe the limiting levels of sound established on the basis of present knowledge for the preservation of public health and welfare. These standards are consistent with speech, sleep, annoyance, and hearing conversation requirements for receivers within areas grouped according to land activities by the Noise Area Classification system. The Noise Area Classification 1 was chosen for receivers in the project area since this classification includes farm houses as household units. Daytime and nighttime limits for this classification are (1) an L_{50} limit of 60 A-weighted decibels (dBA) and an L_{10} limit of 65 dBA in daytime, and (2) an L_{50} limit of 50 dBA and an L_{10} limit of 55 dBA at nighttime. The nighttime L_{50} limit of 50 dBA is the most stringent state limit.

63. The Lake Country Project will be located in a rural setting where night-time background sound is estimated to be between 20-40 dBA. Preliminary noise modeling for the project suggests wind farm sound is between 35 to 40 dBA at 1,000 to 2,000 feet from the turbines. One residential dwelling will receive a maximum of 45 dBA of sound from the turbines. The remaining residential dwellings will receive less than 45 dBA of sound. Lake Country's conceptual turbine layout will not generate noise that exceeds the state noise L_{50} standards of 50 dBA at residential receivers at night.[63]

64. Turbines will be setback a minimum of 1,200 feet from all residential dwellings. This setback was instituted by Lake Country and represents more than double the minimum required by the Commission.[64]

65. Setback distances will be calculated based on site layout and turbine specifications for each residential receiver. The project has been designed to comply with Minnesota Rules 7030.[65]

66. Section 6.6 of the site permit requires Lake Country Wind to conduct a post-construction noise study. The noise study shall be designed to determine the operating LWECS noise levels at different frequencies and at various distances from the turbines at various wind directions and speeds. The purpose of the post-construction noise study is to confirm the MPCA noise standards have been met.

[62] Minn. R. Chapter 7030.
[63] Ex. 1 at p. 6-5 (Application).
[64] Ex. 1 at p. 6-6 (Application).
[65] Ex. 1 at p. 6-6 (Application).

Aesthetics and Viewshed

67. The placement of wind turbines within the project site will have a visual effect on the general area. The population density in this area is low, so fewer non-participating neighbors occur adjacent to the proposed project site than would in a more densely populated area. The turbines will be sited on agricultural land to minimize impacts to the surrounding area. The turbines will be visible from the cities of Atwater and Grove City and from roadways near and within the project area. The turbines will be visible from Diamond Lake and the county park on the west side of Diamond Lake. The turbines will also be visible from at least two Waterfowl Production Areas to the west of the project area.[66]

68. The visual impact of the wind turbines and blades will be reduced by the use of a neutral paint color. The only lights will be those required by the Federal Aviation Administration (proposed site permit section 7.9.9). All site permits issued by the Commission require the use of tubular towers; therefore, the turbine towers will be uniform in appearance. Turbines will not be sited in park areas or sensitive habitat areas. Collector lines will be buried underground. Turbines will be sited at least 1,200 feet from all residential dwellings.[67] The turbines and associated facilities necessary to harvest the wind for energy are not inconsistent with existing agricultural practices, and visually will be similar to other LWECS projects located elsewhere in the state.

69. Sixty-six landowners owning 167 parcels consisting of 12,819 acres within the project area have signed easements with Lake Country. The easements include full easements over 12,526 acres owned by 64 landowners, participation agreements over 294 acres owned by three landowners and 108 acres pending the negotiation of an easement with one landowner.[68]

Shadow Flicker

70. Shadow flicker can be a nuisance to people living near a wind energy project if the project is not properly designed to avoid impacts to residents. Important considerations for shadow flicker impacts are the intensity, frequency, and duration of shadow flicker exposure. The duration of shadow flicker is dependent upon the angle of the sun and the geographic position of the receptor in relation to the wind turbine. Lake Country used WindPro to model the maximum amount of exposure that a residential dwelling would experience in a given year.[69]

[66] Ex. 1 at p. 6-7 (Application).
[67] Ex. 1 at p. 6-9 (Application).
[68] Ex. 1 at p. 4-6 (Application).
[69] Ex. 1 at p. 6-7 (Application).

71. Lake Country has designed the project to minimize shadow flicker on residential dwellings. Seventy-eight percent of the residential dwellings within one-mile of the project area will not be exposed to shadow flicker. Four residential dwellings may receive more than 20 hours of shadow flicker per year with the maximum exposure that may be realized at a residential dwelling of 27 hours and 32 minutes per year. The maximum exposure of 27 hours and 32 minutes is approximately 0.6 percent of the maximum possible daylight hours in a year for this region as determined by the U.S. Naval Observatory sun or moon rise and set tables.[70]

72. Evidence of health effects from shadow flicker is limited, suggesting that it is more of a nuisance issue. Minnesota has no published standards for shadow flicker and no examples of turbines causing photosensitivity related problems. Several jurisdictions in other countries have established guidelines for acceptable levels of shadow flicker based on certain assumptions. The proposed site permit does not contain shadow flicker limits.[71]

Public Health and Safety

73. The REpower MM92 is designed to withstand a certain level of loading caused by an extreme wind event. As defined in the International Electrotechnical Commission 61400-1 wind turbine design/safety standard, the largest wind speed to be considered is called Ve50, which is the maximum gust over a 50-year return period for a 3-second average time period. In a Ve50 situation, the control system of the turbine is assumed to be able to pitch the blades in a feathered position, resulting in minimal rotor torque. The Ve50 limit for the REpower 2.05 MM92 is 133 mph. The predicted 100-year event would be 83.9 mph. The extreme wind conditions as measured onsite are well within the loading limits tested by REpower.[72]

74. Turbines will be protected from lightning through a grounding and shielding system. The purpose of the grounding system is to establish a low resistance and safe path for lighting to reach the ground. Each turbine blade will be equipped with a copper wire that extends from the blade tips through the rotor and nacelle and down the tower to the buried ground grid. Lightning rods are attached to the anemometer and wind vane located on the top of the nacelle to offer additional protection to the turbine nacelle.[73]

[70] Ex. 1 at p. 6-8 (Application).
[71] Minnesota Department of Health Environmental Health Division, *Public Health Impacts of Wind Turbines*. May 22, 2009.
[72] Ex. 1 at p. 4-3 (Application).
[73] Ex. 1 at p. 5-5 (Application).

75. Transformers will be equipped with locking doors to prevent unauthorized entry and bollards to protect against accidental impacts from service equipment or farm machinery.[74] Appropriate lighting, fencing and signage will be installed as project security measures.[75] The Applicant will also provide landowners and interested persons with safety information about the project and its facilities. See proposed site permit condition section 7.9.6.

Electric and Magnetic Fields

76. Possible health effects associated with wind turbines and transmission of electricity generally include those from electric and magnetic fields (EMF). The term EMF refers to electric and magnetic fields that are present around electrical devices. Electric fields arise from the voltage and magnetic fields arise from the flow of electricity or current. The intensity of the electric field is related to the voltage of the line and the intensity of the magnetic field is related to the current flow through the conductors.

77. A number of epidemiological studies have been conducted in an attempt to determine if EMF's pose a health risk. While some of these studies have found a weak association between leukemia and exposure to EMF, other studies have found no connection. Laboratory studies have also been conducted but have not been able to substantiate a direct relationship between increased EMF and increased cancer risks. Information from the Minnesota Department of Health indicates that the results of these studies are insufficient to determine if there is a cause and effect relationship between EMF and health issues. The Minnesota Department of Health continues to monitor EMF research and supports avoidance measures. Exposure to EMF can be reduced by increasing the distance between the EMF source and the recipient.[76]

78. Based on the most current research on EMFs, and the distance between any proposed wind turbines or collector lines and homes; the project is not anticipated to have significant impact to public health and safety due to EMFs.

Stray Voltage

79. The electrical system of the project has been designed to not cause stray voltage. Problems with stray voltage typically arise in single phase electrical systems that are grounded, which gives rise to ground currents and stray voltage. The project's electrical system is not expected to cause stray voltage because it will be a three-phase balanced system and the distribution system will not be grounded. The system will in no way discharge electric current into the ground and will not cause stray voltage.[77]

[74] Ex. 1 at p. 5-8 (Application).
[75] Ex. 1 at p. 6-20 (Application).
[76] Ex. 1 at p. 6-18 (Application).
[77] Ex.1 at p. 6-18 (Application).

Ice Shedding

80. Under some weather conditions ice may accumulate on the exposed parts of the turbine blades and other associated turbine equipment. Accumulated ice may break off as temperatures rise and ice thaws from the rotor, blades, and wind sensors. Ice shedding can occur while the turbine is in a stationary position or may occur when the turbine blades are rotating. If ice is shed while the turbine is stationary, the shedding event is not likely to be any different than that which occurs from any other stationary tower or other elevated source of accumulated ice. If the ice is shed while the turbine is rotating there is a potential for the ice to be cast away from the base of the turbine. Large or long ice fragments experience more aerodynamic drag than small pieces and are more likely to fall closer to the base of the turbine than smaller pieces.[78]

81. Current wind turbine designs, engineering and operational controls, and the Applicant's setbacks make the likelihood of ice shedding on residential dwellings or public roads remote. Lake Country has implemented 1,200 foot setbacks from residential dwellings and has also implemented setbacks of 400 feet from township roads and 528 feet from all other roads in the project area in order to minimize the risk of ice shedding on public roads. The implementation of these setbacks, the agricultural and rural character of the project area, and the lack of regular human activity below the turbines in winter will reduce the potential for ice shedding to cause a safety concern.[79]

Hazardous Materials

82. A records review was conducted by the Applicant to evaluate the past and present environmental conditions of the project area and its surroundings. A search of databases maintained by the United States Environmental Protection Agency and MPCA indicates that several sites of potential contamination are located within the proposed project area and the surrounding vicinity.[80]

83. A phase I environmental site assessment will be conducted on the project area. The assessment will be used to further identify any known hazardous material sites and potential contamination located within the project area. Hazardous materials sites will be considered in the design, siting, and construction of the proposed project. Impacts are anticipated to be minimal since identified sites will be avoided.[81]

[78] Ex. 1 at p. 6-19 (Application).
[79] Ex. 1 at p. 6-20 (Application).
[80] Ex. 1 at p. 6-21 (Application).
[81] Ex. 1 at p. 6-22 (Application).

Public Services and Infrastructure

84. The project will not hinder the ability of local emergency response personnel from responding to emergencies in and adjacent to the project area. Lake Country will develop an emergency response plan prior to project construction. Lake Country will coordinate the implementation of that plan with local emergency response units.[82] Each turbine will be clearly labeled to identify each unit and a map of the site with the labeling system will be provided to local authorities as part of the emergency response plan. See proposed site permit condition at section 7.9.7.

85. Construction of the turbines will require some access roads and temporary turning areas to be constructed on private property to accommodate construction and maintenance activities. Roads will be constructed so as to minimize disturbance to agricultural fields and to maximize efficiency of gaining access to the turbines. Temporary turning areas will be constructed to provide adequate turning radii for the vehicles transporting turbine blades and towers. During construction, a temporary increase in traffic and temporary road closures are expected in the area.[83] When construction is completed these intersections and areas will be returned to pre-construction radiuses and road ditches restored.

86. The Applicant's preliminary turbine layout does not include turbines within five nautical miles of a public use airport and will not penetrate primary, horizontal, conical, or approach or transitional surfaces as defined by Minnesota Rules 8800.1200. No impacts to air traffic are expected.[84]

87. A preliminary review of the Project Area indicates a low likelihood of potential impact to radar systems in the area. Lake Country will complete a formal review process with the Federal Aviation Administration (FAA) to ensure that the final turbine siting design does not adversely impact radar installations in the area.[85] The turbines will be lit to comply with FAA regulations and will be visible in the area. A Determination of No Hazard to Air Navigation from the FAA and the associated Mn/DOT Aeronautic Office concurrence for each wind turbine will be obtained before construction.[86]

88. The project is not anticipated to have an impact on groundwater or geologic resources. Water supply needs will be minimal and can be accommodated by local supplies. Soil disturbance activities are expected to be limited to the upper layers of soil and bedrock is not expected to be encountered.[87] The project is not expected to affect any domestic, municipal, commercial water wells or any rural water system that services the area.

[82] Ex. 1 at p. 6-19 (Application).
[83] Ex. 1 at p. 6-12 (Application).
[84] Ex. 1 at p. 6-12 (Application).
[85] Ex. 1 at p. 6-13 (Application).
[86] Ex. 1 at p. 6-14 (Application).
[87] Ex. 1 at p. 6-28 (Application).

89. Construction and operation of the turbines is not expected to impact telephone service to the area. Lake Country has avoided mapped microwave beam paths that cross the project area to ensure the turbines will not interrupt communications.[88] The Applicant will be responsible for correcting any disruption or interference of these services caused by the turbines or any associated facilities. See proposed site permit condition at section 4.14 and 6.4.

90. Construction, operation, and maintenance of the turbines sites will be in conformance with local, state and federal requirements. No significant infrastructure impacts are anticipated by the project.[89] See section 10.5 of the proposed site permit.

Zoning and Land Use

91. At the time the draft site permit was approved for distribution Meeker County had passed a resolution assuming permitting authority for Wind Energy Conversion Systems (WECS) projects under 25 MW, pursuant to Minnesota Statutes 216F.08. As allowed in Minnesota Statutes 216F.081, the county has adopted some LWECS standards more stringent than the General Permit Standards adopted by the Commission in January 2008. This statute directs the Commission to consider and apply the more stringent standards to LWECS issued by the Commission, unless the Commission finds good cause not to do so. Meeker County's standards include more stringent setback requirements from roads, trails and power lines, and other rights-of-way recorded with the county, structures other than homes or dwellings, USFWS Types III, IV, and V wetlands of five acres or greater, and Shoreland Management Districts.

92. Kandiyohi County has not assumed authority for LWECS projects under Minnesota Statutes 216F.08 and has not adopted LWECS standards pursuant to Minnesota Statutes 216F.081. Kandiyohi County does, however, have an ordinance (Chapter 28 Wind Energy Conversion Systems) to regulate the installation and operation of WECS within the county not otherwise subject to siting and oversight by the State of Minnesota under the Minnesota Power Plant Siting Act (Minnesota Statutes 216F). The county's standards include more stringent setbacks from roads, trails and power lines, and other rights-of-way recorded with the county, DNR Public Water Inventory Wetlands, and Shoreland Management Districts. Kandiyohi County did not provide comments during the prescribed comment periods for the project.

93. The draft site permit identified both counties' more stringent standards in a special condition to allow for comment on whether these more stringent standards were appropriate for the site permit. Both the Kaniyohi County and Meeker County ordinances preclude turbines from being placed within a Shoreland Management District and certain other zoning districts.

[88] Ex. 1 at p. 6-12 (Application).
[89] Ex. 1 at p. 6-14 (Application).

94. In a September 8, 2010, letter the Meeker County Highway Department requested that the applicant contact Meeker County Planning and Zoning to address its more restrictive zoning requirements. Meeker County requests that the applicant enter into a development agreement on the use and repair of roads under jurisdiction of the county and the protection of the public drainage system.[90] See section 10.5 of the proposed site permit regarding other permits or requirements.

Land-Based Economies

95. Approximately 78 percent of the project area is used for agricultural production.[91]

96. All 20 turbines will be sited on agricultural land. A small area of approximately 42,248 square feet (0.96 acre) or less will be taken out of agricultural production for the construction and operation of each turbine.[92] This results in approximately 19.2 acres of agricultural land conversion within the 16,047 acre project area or less than 1 percent. Agricultural activity is expected to continue between the turbine sites, thereby reducing impacts associated with the creation and operation of the wind energy facility.[93]

97. There are no significant forest resources located within the project area. Limited mining does occur in both Kandiyohi and Meeker counties.[94]

98. Diamond Lake and Green Lake are large recreational waterbodies within Kandiyohi County. The Project Area is 0.1 mile from Diamond Lake and more than 5 miles from Green Lake. Although there are numerous tourist and recreational opportunities in the vicinity, the proposed project area is currently dominated by agricultural fields that offer little in this resource category. No negative impacts to tourism and community benefits are anticipated from the proposed project.[95]

99. Effects on property values of participating landowners may be positive due to the increased income received as payments for wind easements and for turbines. Permanent negative effects on property value from the project are not expected. A study of the effects of wind farms on property values within 10 miles of the wind farms found that neither the view of the wind facility or the distance of the home from the wind facility was found to have a consistent, measurable, or statistically significant influence on home sales prices.[96]

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[90] Ex. 21 (Meeker County Letter).
[91] Ex. 1 at p. 6-23 (Application).
[92] Ex. 1 at p. 6-24 (Application).
[93] Ex. 1 at p. 6-24 (Application).
[94] Ex. 1 at p. 6-24 (Application).
[95] Ex. 1 at p. 6-24 and 6-25 (Application).
[96] Hoen, B., R. Wiser P. Cappers, M. Thayer, G. Sethi. 2009. *The Impact of Wind Power Projects on Residential Property Values in the U.S. : a multi-hedonic analysis*. Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy. and Ex. 1 at p. 6-24 (Application).

Recreation and Tourism

100. Recreational opportunities within Kandiyohi and Meeker Counties include hunting, golfing, snowmobiling, camping, hiking, fishing, waterfowl hunting, and bird watching.[97]

101. Several recreation areas are present within the city of Atwater and include Gordy Johnson Little League Field, Centennial Park, and Homer Bach Softball Field.[98] The city of Atwater is surround by the project, but is not part of the project area.

102. There are no Wildlife Management Areas (WMA) or Waterfowl Production Areas (WPA) in the project area. There are three WMAs within one mile of the project area (Butternut WMA, Grovelund WMA, and Yohi WMA). There are three WPAs within one mile of the project area (Ella Lake WPA, Summit Lake WPA, and Uncle Matt's Lake WPA).[99] Turbines will not be located within these sites or within any other public lands and will be setback a minimum of 3 rotor diameters and 5 rotor diameters from adjacent WMAs and WPAs. The applicant has instituted a setback of 1,000 feet from lakes in the counties' Shoreland Management Districts, and other public lands, as identified in its site permit application.[100]

103. No state recreational trails, scientific and natural areas, local, state or national parks, local, state, or national forests or state forest campgrounds are located within five miles of the project area.[101]

104. The Island Pine Golf Course and Country Club is located on Wyoming Avenue in the city of Atwater. The golf course has signed an easement agreement with Lake Country.[102]

105. One private snowmobile trail (Glacial Lakes Snowmobile Trail) crosses from north to south through Atwater with an east-west branch that starts north of Atwater and continues to the north of Grove City. Approximately 9.3 miles of the Glacial Lakes Snowmobile Trail is within the project area. The trail is a grant-in-aid snowmobile trail that receives grant funding from the DNR and is maintained by the E-Z Riders Sno Club. A portion of the trail has been designated as a primary corridor by the Minnesota United Snowmobilers Association. The Applicant has contacted the E-Z Riders Sno Club to inform the club about the Project. The Applicant has indicated that there have been no concerns raised by the club. Lake Country is committed to working with the club to address any concerns that may arise.[103]

[97] Ex. 1 at p. 6-25 (Application).
[98] Ex. 1 at p. 6-16 (Application).
[99] Ex. 1 at p. 6-16 (Application).
[100] Ex. 1 at p. 6-17 (Application).
[101] Ex. 1 at p. 6-17 (Application).
[102] Ex. 1 at p. 6-16 (Application).
[103] Ex. 1 at p. 6-17 (Application).

Community Benefits

106. The proposed project may possibly increase tourism and community activities associated with the project, as has proven to be true in other communities which host wind farms. The project is proposed as a C-BED project which would provide revenues to the participating shareholders. Landowners who lease property to the Applicant for the project would gain lease monies and neighbors with wind easements would benefit financially as well. Another benefit of the project is the generation of a production tax assessed on the wind farm, which would go directly into the local government treasury and benefit the local community (e.g. fire, police, roads). The project is also expected to create new job opportunities within the local community both during construction and operation.

Archaeological and Historical Resources

107. A level I cultural resources inventory was performed for the project area. The level I inventory consisted of a literature review and file search. The search identified one archeological site and 39 historical/architectural sites, most of which are located within the Atwater city limits.[104]

108. The Applicant also requested that the Minnesota Historical Society conduct a review of historical and cultural resources located in the counties and townships of the current 41 MW project area. The review identified 1 archeological site and 27 historical sites within the project area, and several others located in the surrounding vicinity. One architectural resource, the Hotel Atwater, located on Atlantic Avenue in the city of Atwater, is listed on the National Register of Historic Places.[105]

109. A phase I pedestrian survey of proposed construction areas will be conducted to verify the existence of known cultural resources and to document previously undocumented cultural resources within the project area prior to the initiation of any land disturbance activities. The results of the phase I pedestrian survey will be used to identify and minimize impacts. In the event a cultural resource is encountered during the phase I pedestrian survey and it cannot be avoided, actions will be taken to comply with Section 106 of the National Historic Preservation Act, including coordinating identification and mitigation actions with the Minnesota State Historic Preservation Office in accordance with federal law and state law.[106] See proposed site permit condition at section 6.3.

Air and Water Emissions

110. No harmful air or water emissions are expected from the construction and operation of the proposed LWECS.

[104] Ex. 1 at p. 6-15 and Appendix G (Application).
[105] Ex. 1 at p. 6-15 and Appendix D (Application).
[106] Ex. 1 at p. 6-15 and 6-16 (Application).

Surface Water and Wetlands

111. Several waterbodies listed on the DNR Public Waters Inventory (PWI) are located within the Project Area including all or part of seven public water basins, 10 public water wetlands, one public watercourse, two altered-natural watercourses that are Meeker County drainage ditches and scattered wetlands. The larger waterbodies within the Project Area include Summit Lake, Wheeler Lake, Pay Lake, and Moe Lake.[107]

112. No waterbodies within the Project Area are listed as impaired by the MPCA.[108]

113. The Project Area is located outside the 100-year flood zone, according to Federal Emergency Management, Flood Insurance Rate Maps for Kandiyohi and Meeker counties.[109]

114. Approximately 9 percent or 2.3 square miles of the project area contain wetlands according to National Wetland Inventory maps. Of the 2.3 square miles of wetlands, approximately 82 percent (1.9 square miles) are Type 3 (Shallow marsh), Type 4 (Deep marsh), and Type 5 (Shallow open water) wetlands. The remaining wetlands within the project area (0.42 square miles) are Type 1 (Seasonally flooded), Type 2 (Wet meadow), Type 6 (Scrub/Shrub swamp), Type 7 (Wooded swamp), and Type 8 (Bogs). The permit application indicates that 0.7 square miles of wetlands have been partially drained or ditched and that 0.05 square miles have been excavated and are distributed throughout the project area.[110]

115. Prior to construction, Lake Country will conduct a wetland field survey in areas that are proposed for construction. Field surveys will ensure wetlands and streams are avoided to maximum extent practicable.[111]

116. Turbines will typically be sited on higher elevations throughout the project area, thereby avoiding low lying areas prone to flood. No turbines will be placed within public waters or public waters wetlands.[112] The Commission does not allow turbines to be sited within public waters wetlands. Access roads and collector lines may cross public waters wetlands and public watercourses if permitted by the DNR and the U.S. Army Corps of Engineers (USACE).

[107] Ex. 1 at p. 6-29 (Application).
[108] Ex. 1 at p. 6-29 (Application).
[109] Ex. 1 at p. 6-29 (Application).
[110] Ex. 1 at p. 6-30 (Application).
[111] Ex. 1 at p. 6-32 (Application).
[112] Ex. 1 at p. 6-31 (Application).

117. If access roads are installed across streams or drainage ways, the Applicant in consultation with the DNR will design, shape and locate the road so as not to alter the original water flow or drainage patterns. Any work required below the ordinary high water line, such as road crossings or culvert installation, will require a permit from the DNR.

118. Lake Country has committed to avoiding non-PWI wetlands and waterbodies when siting turbines, access roads, and the project substation. Collector lines and other communication infrastructure may be buried under wetlands if an alternative path is impracticable.[113] If avoidance of wetlands and/or streams is not possible, Lake Country will use construction methods such as vibrational plow or directional boring to avoid jurisdictional impacts to wetlands. Lake Country will apply for required permits, as necessary, from the DNR, USACE, Kandiyohi County or Meeker County Soil and Water Conservation District prior to construction. Jurisdictional wetland impacts will be mitigated as required by the appropriate permits.[114] See section 10.5 of the proposed site permit regarding other permits or requirements.

119. The Applicant will be required to apply for a permit under the MPCA administered National Pollution Discharge Elimination System (NPDES). Impacts to surface waters will be minimized during construction through the project's compliance with NPDES permit requirements, which will require the use of appropriate best management practices to treat stormwater runoff and minimize erosion from disturbed construction areas.[115] Erosion control measures would be used throughout construction until disturbed areas have been re-vegetated. The Applicant indicates in the site permit application that the proposed site layout avoids all mapped wetlands. See section 4.6 of the proposed site permit.

Vegetation

120. The proposed site would be located on land which has been historically used for row crop production. According to the 200l National Land Cover Database mapping performed by the Applicant, approximately 78 percent of the project area is classified as cropland.[116]

121. A field survey conducted for a large portion of the project area concluded that there were no areas of native prairie lands present.[117]

[113] Ex. 1 at p. 6-31 (Application).
[114] Ex. 1 at p. 6-32 (Application).
[115] Ex. 1 at p. 6-30 (Application).
[116] Ex. 1 at p. 6-32 (Application).
[117] Ex. 1 at p. 6-32 (Application).

122. The project area contains approximately 2.9 square miles of Conservation Reserve Program (CRP) lands. Lake Country has avoided siting turbines on CRP lands, which is believed to constitute the majority of non-public grassland in the project area. The operation and maintenance of the turbines is not expected to impact perennial or native vegetation in the area.[118]

123. A pedestrian survey of the proposed disturbance areas will be conducted prior to initiating construction. The survey will be conducted to verify that native prairie is not impacted by the project. If native prairie is encountered, Lake Country will explore options to avoid the native prairie. If the native prairie cannot be avoided, a prairie management plan will be prepared in coordination with the DNR.[119] The proposed site permit at section 6.1 provides for preparation of a native prairie protection and management plan.

124. Section 6.1 requires the Applicant to conduct pre-construction desktop and field inventories of potentially impacted, if any, native prairies, wetlands, and any other biologically sensitive areas within the site and assess the presence of state threatened, endangered, or species of special concern or federally listed species.

Wildlife

125. Approximately 78 percent of the project area is developed or cultivated cropland.[120] The wildlife found in the proposed project area is typical of that found in agriculture-related habitats. The resident species are representative of Minnesota game and non-game wildlife that are associated with roadside ditches, fencerows, wetlands, streams, and areas of native grasses and shrubs. There are no WMAs or WPA in the project area. See Finding 102 for additional information on WMAs and WPAs.

126. The routine disturbance that occurs with agricultural activities is expected to remain the primary impact on wildlife in the project area. The temporary disturbance associated with construction of the turbines and associated appurtenances is anticipated to have a temporary and minimal impact on wildlife. Turbines will be setback from contiguous wetland and wooded areas, reducing potential impacts to species that use these areas for foraging and cover.[121]

127. Section 4.5 of the proposed site permit requires that turbines and associated facilities will not be constructed in WMAs, WPAs, or parks and a setback of five rotor diameters in the prevailing wind and three rotor diameters in the non-prevailing wind is applied to such public lands, which would minimize impacts to wildlife that utilize those public lands.

[118] Ex. 1 at p. 6-33 (Application).
[119] Ex. 1 at p. 6-34 (Application).
[120] Ex. 1 at p. 6-34 (Application).
[121] Ex. 1 at p. 6-38 (Application).

128. Lake Country has assessed the project area for potential impacts to wildlife according to the *Wind Turbine Advisory Committee Recommendations: Guidelines*, which were presented to the U.S. Secretary of the Interior on March 4, 2010.[122] The guidelines provide wind developers and regulatory agencies with the information needed to identify, assess, and monitor the potentially adverse impacts of wind energy projects on wildlife and their habitats, particularly migratory birds and bats. The guidelines focus on a tiered approach to gathering information on a site and potential risks to wildlife and wildlife habitat. Depending on the results obtained from each tier, pre-and/or post-construction survey work and mitigative measures are recommended.

129. A Tier 1 and Tier 2 evaluation of a 340 MW footprint was initially conducted by the Applicant that included the current 41 MW project area. Primary concerns raised in Lake Country's preliminary evaluation included the presence of species of concern, WMAs, WPAs, other conservation land, and lakes and wetland habitats scattered throughout the original 340 MW area of interest and the potential use of those areas by waterbirds. The DNR and USFWS also expressed concern about bald eagle nests and a colonial waterbird nesting area within and adjacent to the 340 MW area of interest. Lake Country used the results of its Tier 1 and Tier 2 evaluation to reduce the 340 MW area of interest to the current 41 MW project area presented in the site permit application.[123] Based on the information collected in Tiers 1 and 2, the project area excludes species of concern, critical habitat areas, and large areas of contiguous habitat.[124] The project area does contain two Natural Heritage Information System records of known native vegetation communities in Meeker County. Lake Country has avoided these areas and does not have turbines sited within Meeker County.[125]

130. Because the project area contains lake and wetland habitat that may be used as congregation areas by bird species protected by the Bald and Golden Eagle Protection Act or the Migratory Bird Treaty Act, including the bald eagle and other waterbirds, the Applicant proceeded to Tier 3 of the USFWS Guidelines by preparing an Avian Impact Assessment to better understand potential risks within the Project Area.[126] Objectives of the Tier 3-based Avian Impact Assessment were to characterize diurnal bird use of the project area in relation to lakes and wetlands; determine diurnal flight patterns of birds in relation to proposed turbine locations; document flight activity and nest sites of bald eagles and other raptors within two miles of the project area; and record the presence or absence of species of concern during spring migration and breeding.[127] The Study methodology was based on preliminary determinations of assessment needs by Lake Country, in consultation with the DNR and USFWS.[128]

[122] Ex. 1 at p. 6-34 (Application).
[123] Ex. 1 at p. 6-36 and Appendix D (Application).
[124] Ex. 1 at p. 6-37 (Application).
[125] Ex. 1 at p. 6-36 (Application).
[126] Ex. 1 at p. 6-38 (Application).
[127] Ex. 15 and 20 at p. 1-2 (Avian Impact Assessment).
[128] Ex. 15 and 20 at p. 1 (Avian Impact Assessment).

131. The Avian Impact Assessment indicates that there are three active bald eagle nest sites within two miles of the project area, the closest of which is located 1.3 miles from the nearest turbine location. A great Horned owl nest and red-tailed hawk nest were identified and located 1.4 miles and 3.3 miles from the nearest turbine location, respectively.[129]

132. The Avian Impact Assessment documented use of the project area by 114 species of birds, including four species of special concern: American White Pelican, bald eagle, Franklin's Gull, and Forester's Tern.[130]

133. Based on the Avian Impact Assessment, the majority of documented avian species and observed activity was concentrated in two locations within the project area that included Wheeler Lake and areas directly south and west, and Summit Lake and areas directly south.[131] There are six proposed turbine locations located south of Wheeler Lake in sections 33 and 34 of Harrison Township. There are no turbine locations proposed south of Summit Lake.

134. A comment letter from the DNR dated December 15, 2010, suggests that an Avian and Bat Protection Plan and fatality study be developed by the Applicant in coordination with the Commission, DNR, and USFWS for the northwest corner of the project area where six proposed turbines are located in this area of known higher bird use. The DNR also suggests the Applicant coordinate with the USFWS, the permitting agency and administrator for the Bald and Golden Eagle Protection Act, to determine if additional surveys are needed prior to construction to assess bald eagle nest locations.[132]

135. A comment letter from the USFWS dated December 15, 2010, states that, based on the Assessment data, American white pelicans appear to be utilizing the project area regularly for foraging, in particular at Wheeler and Summit Lakes. The USFWS recommends not siting wind turbines within one mile of Wheeler and Summit Lakes and the lakes' adjacent wetland complex. The USFWS indicates that a one-mile setback will reduce the potential strike of pelicans as they approach and leave the lakes, based on flight path data included in the Assessment.[133]

[129] Ex. 15 and 20 at p. 3-1 (Avian Impact Assessment).
[130] Ex. 15 and 20 at p. 3-2 (Avian Impact Assessment).
[131] Ex. 15 and 20 (Avian Impact Assessment).
[132] Ex. 18 (DNR Letter - Public Comment Letters).
[133] Ex. 18 (USFWS Letter - Public Comment Letters).

136. The USFWS also suggests that Wheeler Lake could be considered an important bald eagle use area for seasonal foraging purposes, as it is utilized by eagles migrating through the area and used by eagles that nest in the area, and that placement of turbines within two miles of Wheeler Lake should be avoided if practical and feasible. However, if turbine placement within this area is not feasible, limiting the number of turbines or exercising seasonal turbine shutdowns should be taken into consideration. Seasonal shutdowns could be targeted towards March and April of each year of operation, which may reduce potential future impacts to migrant eagles utilizing Wheeler Lake.[134]

137. The USFWS recommends that surveys be conducted for at least two years following construction to assess impacts to migratory birds in close proximity to Wheeler and Summit Lakes, in particular American white pelicans and bald eagles. Surveys should include any turbines that are constructed within two miles of Wheeler and Summit Lakes and the associated wetlands. Surveys should include work to establish potential trends in American white pelican avoidance of foraging areas if turbines are constructed within one mile of Wheeler and/or Summit Lakes. Surveys should also include monitoring to determine any new eagle nest activity near the proposed turbines and to document any changes in seasonal activity of bald eagles in the project area, in particular the Wheeler Lake area.[135]

138. The applicant, in its letter of January 6, 2011, responding to the DNR and USFWS comments, concluded that, based on the information gathered in the Avian Impact Assessment and insufficient justification and inconsistency with the USFWS Guidelines, the DNR and USFWS recommendations should not be included as conditions of the Commission's site permit. Lake Country Wind Energy noted that it intends to prepare an Avian and Bat Protection Plan as a pre-construction measure and will coordinate development of that plan with the Commission and other agencies as deemed appropriate by OES.[136]

[134] Ex. 18 (USFWS Letter - Public Comment Letters).
[135] Ex. 18 (USFWS Letter - Public Comment Letters).
[136] Ex. 22 (Lake Country Wind Energy Letter).

139. Section 6.7 of the site permit requires the Applicant to prepare an avian and bat protection plan for the project, submit quarterly avian and bat reports, and report dead or injured avian and bats species under certain conditions. In particular, the plan will target a limited area of six (6) turbines that are proposed to be located in the northwest portion of the project near Wheeler Lake (sections 33 and 34 of Harrison Township), an area of the project with higher avian species abundance and diversity, as identified in the Avian Impact Assessment and recommended by the DNR. Section 6.7 requires the Applicant to work with the Commission, DNR, and the USFWS in preparation of the plan. Section 13.1 of the proposed site permit requires a minimum of one (1) year of post- construction avian fatality surveys; however, the surveys could also be extended if the results show additional study is warranted following the USFWS Draft Guidelines for Wind Turbine Siting. As referenced in Section 13.1, the process for extending the surveys or imposing mitigation is outlined in Section 11.2 (Modification of Conditions).

Rare and Unique Natural Resources

140. According to a query of the DNR Natural Heritage Information System, there are five recorded occurrences of special status species, plant communities, or other unique natural features within a one-mile radius of the project area.[137]

141. The DNR in its December 15, 2010, comment letter suggests that to ensure the sensitive areas continue to be avoided in future project micro-siting, the project boundaries be moved to exclude all portions of these sections to avoid the rare and unique natural resources identified in these areas.[138]

142. These recorded occurrences include two Minnesota County Biological Survey Sites of Moderate Biodiversity, an Oak Forest and a Mesic Prairie (native plant community and Small White Lady's-slipper) that are located in the east and southeast section of the project area in Acton Township. There are also records of vascular plant communities that include the state-threatened Hair-like Beak-rush and records of Marsh Arrow-grass, and a calcareous fen located in the southern portion of the project area in Gennessee Township.[139] There are currently no proposed turbines sited near or within these sections. The Applicant has sited the turbines, access roads and appurtenances to avoid native plant communities, wetlands, wooded areas and habitat for special concern species.[140]

143. There are currently no turbines sited or proposed by the Applicant in Acton Township sections 5, 6, 7, 8, 17, and 18 in Meeker County; Gennessee Township sections 7, 16, 17, 18, 19, 20, 21, and 29 in Kandiyohi County.[141]

[137] Ex. 1 at Appendix D (Application).
[138] Ex. 18 (DNR Letter - Public Comment Letters).
[139] Ex. 1 at Appendix D (Application).
[140] Ex. 1 at p. 6-40 (Application).
[141] Ex. 1 at Figure 2 (Application).

144. The applicant in their permit application has instituted a setback of 3 RD by 5 RD from the rare and unique natural resource areas located in the sections identified by the DNR, including setbacks from Shoreland Management Districts and wetlands in section 18, and right-of-way setbacks (railroad) in section 5 and 8 of Acton Township in Meeker County. There are no plans by the applicant to site wind turbines or associated facilities in the identified sections. In addition, the site permit in sections 4.0 and 13.2 provide for appropriate setbacks to ensure proper siting of turbines and other infrastructure in relation to the known areas of rare and unique natural resources. Section 8.2 of the site permit also provides the Commission with the authority to adjust the final boundaries of the site required for the project after final design and completion of construction.[142]

145. Lake Country will conduct a more detailed review of the rare and unique resources within the project area prior to final turbine siting in order to avoid impacts. Wetland impacts due to road or collector crossings will be permitted and mitigated as required by the local, state, and federal regulations.[143]

146. As discussed in Finding 139 the Applicant will prepare an avian and bat protection plan, which will address rare and unique species. Further, Section 4.7 of the site permit requires a Prairie Protection and Management Plan if native prairie is identified in the surveys required under Section 6.1 of the site permit.

Future Development and Expansion

147. The Applicant has indicated that it is considering Kandiyohi County for future development, but if such a project is proposed, a separate site permit would be required in order to construct the project.

148. The Commission is responsible for siting of LWECS in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.[144] Section 4.1 of the site permit provides for buffers between adjacent wind generation projects to protect wind production potential.

Site Permit Conditions

149. All of the above findings pertain to the Applicant's requested permit for a 41 MW LWECS project.

150. Most of the conditions contained in this site permit were established as part of the site permit proceedings of other wind turbine projects permitted by the Minnesota Environmental Quality Board and the Minnesota Public Utilities Commission. Comments received by the Commission have been considered in development of the

[142] Ex. 1 at p. 6-40 and 6-41 (Application).
[143] Ex. 1 at p. 6-41 (Application).
[144] Minnesota Statutes 216F.03.

proposed site permit. Minor changes and special condition additions that provide clarification or additional requirements have been made.

151. The proposed site permit contains conditions that apply to site preparation, construction, cleanup, restoration, operation, maintenance, abandonment, decommissioning, and all other aspects of the project.

Based on the foregoing findings, the Minnesota Public Utilities Commission makes the following:

CONCLUSIONS OF LAW

152. Any of the foregoing findings, which more properly should be designated as conclusions, are hereby adopted as such.

153. The Minnesota Public Utilities Commission has jurisdiction over this matter pursuant to Minnesota Statutes, section 216F.04.

154. The Applicant has substantially complied with the procedural requirements of Minnesota Statutes 216F and Minnesota Rules 7854.

155. The Minnesota Public Utilities Commission has complied with all procedural requirements required of Minnesota Statutes 216F and Minnesota Rules 7854.

156. The Minnesota Public Utilities Commission has considered all the pertinent factors relative to its determination of whether a site permit should be approved.

157. The Lake Country Wind Farm is compatible with the policy of the state to site LWECS in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources under Minnesota Statutes, section 216F.03.

158. The Minnesota Public Utilities Commission has the authority under Minnesota Statutes, section 216F.04 to place conditions in a permit and may deny, modify, suspend, or revoke a permit. The conditions in the site permit are reasonable and appropriate.

Based on the foregoing Findings of Fact and Conclusions of Law, the Minnesota Public Utilities Commission issues the following:

ORDER

A LWECS site permit is hereby issued to Lake Country Wind Energy, LLC, to construct and operate the up to 41 MW Lake Country Wind Farm in Kandiyohi County and Meeker County in accordance with the conditions contained in the site permit and in compliance with the requirements of Minnesota Statutes, section 216F.04 and Minnesota Rules 7854 for Public Utilities Commission Docket No. IP6846/WS-10-798.

The site permit is attached hereto, with a map showing the approved site and preliminary turbine layouts.

BY THE ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

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STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

SITE PERMIT FOR A LARGE WIND ENERGY CONVERSION SYSTEM

IN KANDIYOHI AND MEEKER COUNTIES

ISSUED TO LAKE COUNTRY WIND ENERGY, LLC

PUC DOCKET NO. IP6846/WS-10-798

In accordance with Minnesota Statutes, section 216F.04, this site permit is hereby issued to:

Lake Country Wind Energy, LLC

Lake Country Wind Energy, LLC, is authorized to construct and operate up to a 41 megawatt Large Wind Energy Conversion System on the site identified in this site permit and in compliance with the conditions contained in this site permit.

This site permit shall expire thirty (30) years from the date of this approval

Approved and adopted this 8th day of February, 2011

BY ORDER OF THE COMMISSION

BURL W. HAAR
Executive Secretary

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CONTENTS

ATTACHMENTS

SITE PERMIT

This **site permit** for a Large Wind Energy Conversion System (LWECS) authorizes Lake Country Wind Energy, LLC, (permittee) to construct and operate the Lake Country Wind Farm (project), an up to 41 megawatt (MW) nameplate capacity LWECS and associated facilities in Kandiyohi and Meeker counties in accordance with the conditions contained in this Permit.

The permittee shall comply with those practices set forth in its site permit application, dated August 4, 2010, the revised site boundary maps (Appendix A) of the site permit application, dated September 16, 2010, and the record of this proceeding unless this Permit establishes a different requirement in which case this Permit shall prevail.

1.0 PROJECT DESCRIPTION

The up to 41 MW nameplate capacity LWECS authorized to be constructed in this Permit will be developed and constructed by the permittee. The project will consist of an array of 20 REpower 2.05 MW MM92 wind turbines. The turbines will consist of 328 foot towers with 269 foot diameter rotors for a maximum height of 479 feet. The project will also require the following associated facilities as identified in the site permit application:

- pad mount transformers;
- collection lines;
- supervisory control and data acquisition (SCADA) communication lines;
- a project substation with switching and protection equipment, metering equipment, a small control house, and a 48 K transformer;
- access roads; and
- one permanent meteorological tower

The project also includes an operations and maintenance facility; it will be permitted locally once the location is finalized. The project will interconnect to an existing Xcel Energy 69 kV transmission line with a proposed project substation in section 6, of Acton Township, in Meeker County. The project is expected to generate between 139,480 MW hours and 142,747 MW hours annually.

2.0 DESIGNATED SITE

2.1 PROJECT BOUNDARY

The approved LWECS site permit boundary and preliminary project layout are shown on the map that is attached hereto as Attachment 1.

Within the site permit boundary, the project and associated facilities shall be located on lands for which the permittee has obtained wind rights. Wind rights or easements have been obtained by the permittee and include 12,526 acres of full easements and 294 acres of participation agreements, totaling 12,820 acres in sections of Acton, Gennessee and Harrison townships. Upon completion, the total project site would be converted to wind turbines and associated infrastructure for a total of approximately 19.4 square acres. (Attachment 1).

2.2 TURBINE LAYOUT

The wind turbine and associated facility layout shown on Attachment 1 represents the preliminary location of wind turbines and associated facilities within the project boundary and identifies a layout that minimizes the overall potential human and environmental impacts, which were evaluated in the permitting process. The final layout depicting the location of each wind turbine and associated facility shall be located within the project boundary. The project boundary serves to provide the permittee with the flexibility to do minor adjustments to the preliminary layout to accommodate landowner requests, unforeseen conditions encountered during the detailed engineering and design process, and federal and state agency requirements. Any modification of the location of a wind turbine and associated facility depicted in a preliminary layout shall be done in such a manner as to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 5.1. The permittee shall submit the final site layout in the site plan pursuant to Section 5.1.

3.0 APPLICATION COMPLIANCE

The permittee shall comply with those practices set forth in its site permit application, dated August 4, 2010, and the record of this proceeding unless this Permit establishes a different requirement in which case this Permit shall prevail.

4.0 SETBACKS AND SITE LAYOUT RESTRICTIONS

4.1 WIND ACCESS BUFFER

Wind turbine towers shall not be placed less than five (5) rotor diameters (RD) on the prevailing wind directions and three (3) RD on the non-prevailing wind directions from the perimeter of the property where the permittee does not hold the wind rights, without the approval of the Commission. This section does not apply to public roads and trails.

4.2 RESIDENCES

Wind turbine towers shall not be located closer than 1,200 feet to a residence, as instituted by the permittee in its site permit application or the distance to comply with the noise standards pursuant to Minnesota Rule 7030.0040 established by the Minnesota Pollution Control Agency (MPCA), whichever is greater.

4.3 NOISE

The wind turbine towers shall be placed such that the permittee shall comply with noise standards established as of the date of this permit by the MPCA at all times and at all appropriate locations. The noise standards are found in Minnesota Rules, chapter 7030. Turbine operation shall be modified or turbines shall be removed from service if necessary to comply with these noise standards. The permittee or its contractor may install and operate turbines as close as the minimum setback required in this permit, but in all cases shall comply with MPCA noise standards. The permittee shall be required to comply with this condition with respect to all homes or other receptors in place as of the time of construction, but not with respect to such receptors built after construction of the towers.

4.4 ROADS

Wind turbines and meteorological towers shall not be located less than 250 feet from the edge of the nearest public road right-of-way, or in compliance with the county ordinance regulating wind turbines and meteorological towers in the county the tower is built, whichever is more restrictive. See Section 13.2 of this permit.

4.5 PUBLIC LANDS

Wind turbines and associated facilities including foundations, access roads, underground cable, and transformers, shall not be located in public lands, including Waterfowl Production Areas, State Wildlife Management Areas, Scientific and Natural Areas or county parks, and wind turbines towers shall also comply with the setbacks of Section 4.1.

4.6 WETLANDS

Wind turbines and associated facilities including foundations, access roads, underground cable and transformers, shall not be placed in public waters wetlands, as defined in Minnesota Statutes, section 103G.005, subdivision 15(a), except that electric collector or feeder lines may cross or be placed in public waters or public waters wetlands subject to permits and approvals by the Minnesota Department of Natural Resources (DNR) and the United States Army Corps of Engineers (USACE).

4.7 NATIVE PRAIRIE

Wind turbines and associated facilities including foundations, access roads, collector and feeder lines, underground cable, and transformers, shall not be placed in native prairie, as defined in Minnesota Statutes, section 84.02, subdivision 5, unless addressed in a prairie protection and management plan. The permittee shall, in consultation with the Minnesota Public Utilities Commission (Commission) and DNR, prepare a prairie protection and management plan and submit it to the Commission and DNR at least ten (10) working days prior to the pre-construction meeting if native prairie is identified in any biological and natural resource inventories conducted pursuant to Section 6.1. The plan shall address steps taken to avoid impacts to native prairie and mitigation to unavoidable impacts to native prairie by restoration or management of other native prairie areas that are in degraded condition, by conveyance of conservation easements, or by other means agreed to by the permittee and Commission. Wind turbines and associated facilities including foundations, access roads, collector and feeder lines, underground cable, and transformers shall not be located in areas enrolled in the Native Prairie Bank Program.

4.8 SAND AND GRAVEL OPERATIONS

Wind turbines and all associated facilities, including foundations, access roads, underground cable, and transformers shall not be located within active sand and gravel operations, unless otherwise negotiated with the landowner with notice given to the owner of the sand and gravel operation.

4.9 WIND TURBINE TOWERS

Structures for wind turbines shall be self-supporting towers consisting of four conical tubular steel sections with a steel door at the base of the tower; interior lighting; electrical, control, and communication cables; a control system located at the bottom of the tower; and a safety ladder or lift with fall arresting safety system for access to the nacelle. Tower surfaces are sandblasted, coated for protection against corrosion, and painted with non-glare paint. The towers will be up to 328 feet above grade measured at the hub.

4.10 TURBINE SPACING

The turbine towers shall be constructed within the site boundary as shown in Attachment 1. The turbine towers shall be spaced no closer than three (3) RD in the non-prevailing wind directions and five (5) RD on the prevailing wind directions. If required during final micro-siting of the turbine towers to account for topographic conditions, up to 20 percent of the towers may be sited closer than the above spacing but the permittee shall minimize the need to site the turbine towers closer.

4.11 METEOROLOGICAL TOWERS

Permanent towers for meteorological equipment shall be free standing. Permanent meteorological towers shall not be placed less than 250 feet from the edge of the nearest public road right-of-way and from the boundary of the permittee's site control, or in compliance with the county ordinance regulating meteorological towers in the county the tower is built, whichever is more restrictive. Meteorological towers shall be placed on property the permittee holds the wind or other development rights.

Meteorological towers shall be marked as required by the Federal Aviation Administration (FAA). There shall be no lights on the meteorological towers other than what is required by the FAA. This restriction shall not apply to infrared heating devices used to protect the wind monitoring equipment.

4.12 AVIATION

The permittee shall not place wind turbines or associated facilities in a location that could create an obstruction to navigable airspace of public and private airports (as defined in Minnesota Rules 8800.0100, subparts 24(a) and 24(b)) in Minnesota, adjacent states, or provinces. The permittee shall apply the minimum obstruction clearance for private airports pursuant to Minnesota Rules 8800.1900, subpart 5. Setbacks or other limitations shall be followed in accordance with the Minnesota Department of Transportation (Mn/DOT), Department of Aviation, and the FAA. The permittee shall notify owners of all known airports within six (6) miles of the project prior to construction.

4.13 FOOTPRINT MINIMIZATION

The permittee shall design and construct the LWECS so as to minimize the amount of land that is impacted by the LWECS. Associated facilities in the vicinity of turbines such as electrical/electronic boxes, step-up transformers, and monitoring systems shall, to the greatest extent feasible, be mounted on the foundations used for turbine towers or inside the towers unless otherwise negotiated with the affected landowner(s).

4.14 COMMUNICATION CABLES

The permittee shall place all supervisory control and data acquisition (SCADA) cables underground and within or adjacent to the land necessary for turbine access roads unless an alternate location is contractually permitted by the affected landowner(s).

4.15 ELECTRICAL COLLECTOR AND FEEDER LINES

Collector and feeder lines comprise the electrical collection system. Collector lines that carry electrical power from each individual transformer associated with a wind turbine to an internal project interconnection point shall be buried underground. Collector lines shall be placed within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner(s).

Feeder lines that carry power from an internal project interconnection point to the project substation or interconnection point on the electrical grid may be overhead or underground. Feeder line locations shall be negotiated with the affected landowner(s).

Any overhead feeder lines that parallel public roads shall be placed within the public rights-of-way or on private land immediately adjacent to public roads. If overhead feeder lines are located within public rights-of-way, the permittee shall obtain approval from the governmental unit responsible for the affected right-of-way.

Collector and feeder line locations shall be located in such a manner as to minimize interference with agricultural operations including, but not limited, to existing drainage patterns, drain tile, future tiling plans, and ditches. Safety shields shall be placed on all guy wires associated with overhead feeder lines. The permittee shall submit the engineering drawings of all collector and feeder lines in the site plan pursuant to Section 5.1.

The permittee must fulfill, comply with, and satisfy all Institute of Electrical and Electronics Engineers, Inc. (IEEE) standards applicable to this Project including, but not limited to, IEEE 776 (Recommended Practice for Inductive Coordination of Electric Supply and Communication Lines), IEEE 519 (Harmonic Specifications), IEEE 367 (Recommended Practice for Determining the Electric Power Station Ground Potential Rise and Induced Voltage from a Power Fault), and IEEE 820 (Standard Telephone Loop Performance Characteristics) provided the telephone service provider(s) have complied with any obligations imposed on it pursuant to these standards. Upon request by the Commission, the permittee shall report to the Commission on compliance with these standards.

5.0 ADMINISTRATIVE COMPLIANCE PROCEDURES

The following administrative compliance procedures shall be executed in accordance with the Permit Compliance Filings at Attachments 3 and 4.

5.1 SITE PLAN

At least ten (10) working days prior to the pre-construction meeting, the permittee shall submit to the Commission:

(a) a site plan for all turbines, roads, electrical equipment, collector and feeder lines, and other associated facilities to be constructed;

(b) engineering drawings for site preparation, construction of the facilities; and

(c) a plan for restoration of the site due to construction.

The permittee may submit a site plan and engineering drawings for only a portion of the project if the permittee intends to commence construction on certain parts of the project before completing the site plan and engineering drawings for other parts of the project. The permittee shall document, through GIS mapping, compliance with the setbacks and site layout restrictions required by this permit, including compliance with the noise standards pursuant to Minnesota Rules, chapter 7030. In the event that previously unidentified environmental conditions are discovered during construction that by law or pursuant to conditions outlined in this Permit would preclude the use of that site as a turbine site, the permittee shall have the right to move or relocate turbine site. The permittee shall notify the Commission of any turbines that are to be relocated before the turbine is constructed on the new site and demonstrate compliance with the setbacks and site layout restrictions required by this Permit.

5.2 NOTICE TO RESIDENTS AND GOVERNMENT AGENCIES

Within ten (10) working days of approval of this permit, the permittee shall send a copy of the permit to the office of the auditor of each county in which the site is located and to the clerk of each city and township within the site boundaries. If applicable, the permittee shall, within ten (10) working days of permit approval, send a copy of this Permit to each regional development commission, local fire district, soil and water conservation district, watershed district, and watershed management district office with jurisdiction in the county where the site is located. Within thirty (30) days of approval of this Permit, the permittee shall send a copy of the Permit to each landowner within the project boundary. In no case shall the landowner receive this site permit and complaint procedure less than five (5) days prior to the start of construction on their property.

5.3 NOTICE OF PERMIT CONDITIONS

Prior to the start of construction, the permittee shall inform all employees, contractors, and other persons involved in the construction and ongoing operation of the project of the terms and conditions of this permit.

5.4 FIELD REPRESENTATIVE

At least ten (10) working days prior to the pre-construction meeting and continuously throughout construction, including site restoration, the permittee shall designate a field representative responsible for overseeing compliance with the conditions of this permit during the construction phase of this project. This person (or a designee) shall be accessible by telephone during normal working hours. This person's address, phone number, email, and emergency phone number shall be provided to the Commission, which may make the contact information available to local residents and officials and other interested persons. The permittee may change the field representative by notification to the Commission.

5.5 SITE MANAGER

The permittee shall designate a site manager responsible for overseeing compliance with the conditions of this Permit during the commercial operation and decommissioning phases of this project. The permittee shall provide the Commission with the name, address, email, phone number, and emergency phone number of the site manager prior to placing any turbine into commercial operation. This information shall be maintained current by informing the Commission of any changes, as they become effective.

5.6 PRE-CONSTRUCTION MEETING

Prior to the start of any construction, the permittee shall conduct a pre-construction meeting with the Field Representative and the State Permit Manager designated by the Commission to coordinate field monitoring of construction activities.

5.7 PRE-OPERATION COMPLIANCE MEETING

At least ten (10) working days prior to commercial operation, the permittee shall conduct a pre-operation compliance meeting with the Site Manager and the State Permit Manager designated by the Commission to coordinate field monitoring of operation activities.

5.8 COMPLAINTS

At least ten (10) working days prior to the pre-construction meeting, the permittee shall submit to the Commission the company's procedures to be used to receive and respond to complaints. The permittee shall report to the Commission all complaints received concerning any part of the project in accordance with the procedures provided in Attachments 2 and 3 of this permit.

6.0 SURVEYS AND REPORTING

6.1 BIOLOGICAL AND NATURAL RESOURCE INVENTORIES

The permittee, in consultation with the Commission and DNR, shall design and conduct pre-construction desktop and field inventories of potentially impacted, if any, native prairies, wetlands, and any other biologically sensitive areas within the site and assess the presence of state threatened, endangered, or species of special concern or federally listed species. The results of any surveys shall be submitted to the Commission and DNR at least thirty (30) days prior to the pre-construction meeting to confirm compliance of conditions in this permit.

The permittee shall provide to the Commission any biological surveys or studies conducted on this project, including those not required under this permit.

6.2 SHADOW FLICKER

At least ten (10) working days prior to the pre-construction meeting, the permittee shall provide data on shadow flicker for each residence of non-participating landowners and participating landowners. Information shall include the results of modeling used, assumptions made, and the anticipated duration of shadow flicker for each residence. The permittee shall provide documentation on its efforts to minimize shadow flicker impacts.

6.3 ARCHAEOLOGICAL RESOURCES

The permittee shall work with the State Historic Preservation Office (SHPO) and the State Archaeologist. The permittee shall carry out a phase 1 or 1A archaeology survey for all proposed turbine locations, access roads, junction boxes, and other areas of project construction impact to determine whether additional archaeological work is necessary for any part of the proposed project. The permittee shall contract with a qualified archaeologist to complete such surveys, and shall submit the results to the Commission, the SHPO, and the State Archaeologist at least ten (10) working days prior to the pre-construction meeting.

The SHPO and the State Archaeologist will make recommendations for the treatment of any significant archaeological sites which are identified. Any issues in the implementation of these recommendations will be resolved by the Commission in consultation with SHPO and the State Archaeologist. The permittee shall not excavate at such locations until so authorized by the Commission in consultation with the SHPO and the State Archaeologist.

If human remains are encountered during construction, the permittee shall immediately halt construction at that location and promptly notify local law enforcement authorities and the State Archaeologist. Construction at the human remains location shall not proceed until authorized by local law enforcement authorities or the State Archaeologist. If any federal funding, permit, or license is involved or required, the permittee shall notify the SHPO as soon as possible in the planning process to coordinate section 106 (36 CFR part 800) review.

Prior to construction, construction workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction. If any archaeological sites are found during construction, the permittee shall immediately stop work at the site and shall mark and preserve the site and notify the Commission, SHPO, and State Archaeologist about the discovery. The Commission and SHPO shall have three working days from the time the agency is notified to conduct an inspection of the site if either agency shall choose to do so. On the fourth day after notification, the permittee may begin work on the site unless the SHPO has directed that work shall cease. In such event, work shall not continue until the SHPO determines that construction can proceed.

6.4 INTERFERENCE

At least ten (10) working days prior to the pre-construction meeting, the permittee shall submit to the Commission the results of an assessment of television and radio signal reception, microwave signal patterns, and telecommunications in the project area. The assessment shall be designed to provide data that can be used in the future to determine whether the turbines and associated facilities are the cause of disruption or interference of television or radio reception, microwave patterns, or telecommunications in the event residents should complain about such disruption or interference after the turbines are placed in operation. The permittee shall be responsible for alleviating any disruption or interference of these services caused by the turbines or any associated facilities.

The permittee shall not operate the project so as to cause microwave, television, radio, telecommunications, or navigation interference in violation of Federal Communications Commission regulations or other law. In the event the project or its operations cause such interference, the permittee shall take timely measures necessary to correct the problem.

6.5 WAKE LOSS STUDIES

At least ten (10) working days prior to the pre-construction meeting, the permittee shall provide to the Commission the pre-construction micro-siting analysis leading to the final tower locations and an estimate of total project wake losses. The permittee shall provide to the Commission any operational wake loss studies conducted on this project.

6.6 NOISE

The permittee shall submit a proposal to the Commission at least ten (10) working days prior to the pre-operation compliance meeting for the conduct of a post-construction noise study. Upon the approval of the Commission, the permittee shall carryout the study. The study shall be designed to determine the operating LWECS noise levels at different frequencies and at various distances from the turbines at various wind directions and speeds. The permittee shall submit the study within eighteen (18) months after commercial operation.

6.7 AVIAN AND BAT PROTECTION PLAN

The permittee shall, in consultation with the Commission, the U.S. Fish and Wildlife Service (USFWS), and the DNR, prepare an Avian and Bat Protection Plan and submit it to the Commission at least ten (10) working days prior to the pre-construction meeting. The plan shall address steps to be taken to identify and mitigate impacts to avian and bat species during the construction phase and the operation phase of the project. The plan shall also include formal and informal monitoring, training, wildlife handling, documentation (e.g., photographs), and reporting protocols for each phase of the project.

The permittee shall submit quarterly avian and bat reports to the Commission. Quarterly reports are due by the 15th of each January, April, July, and October commencing the day following commercial operation and terminating upon the expiration of this permit. Each report shall identify any dead or injured avian and bat species, location of find by turbine number, and date of find for the reporting period in accordance with the reporting protocols.

The permittee shall notify the Commission, the USFWS, and DNR within twenty-four (24) hours of the discovery of any of the following within the vicinity of the rotor swept area:

(a) five or more dead or injured non-protected avian or bat species within a reporting period;

(b) one or more dead or injured migratory avian or bat species;

(c) one or more dead or injured state threatened, endangered, or species of special concern; or

(d) one or more dead or injured federally listed species.

6.8 PROJECT ENERGY PRODUCTION

The permittee shall submit a report no later than February 1st following each complete year of project operation. The report shall include:

(a) The rated nameplate capacity of the permitted project;

(b) The total monthly energy generated by the project in MW hours;

(c) The monthly capacity factor of the project;

(d) Yearly energy production and capacity factor for the project;

(e) The operational status of the project and any major outages, major repairs, or turbine performance improvements occurring in the previous year; and

(f) Any other information reasonably requested by the Commission.

This information shall be considered public and must be submitted electronically.

6.9 WIND RESOURCE USE

The permittee shall, upon the request of the Commission, report to the Commission on the monthly energy production of the project and the average monthly wind speed collected at one permanent meteorological tower selected by the Commission during the preceding year or partial year of operation.

The provisions of Section 11.7 shall apply to the Commission's review of data provided pursuant to this section.

6.10 EXTRAORDINARY EVENTS

Within twenty-four (24) hours of an occurrence, the permittee shall notify the Commission of any extraordinary event. Extraordinary events include but shall not be limited to: fires, tower collapse, thrown blade, collector or feeder line failure, and injured LWECS worker or private person. The permittee shall, within thirty (30) days of the occurrence, submit a report to the Commission describing the cause of the occurrence and the steps taken to avoid future occurrences.

7.0 CONSTRUCTION AND OPERATION PRACTICES

7.1 SITE CLEARANCE

The permittee shall disturb or clear the site only to the extent necessary to assure suitable access for construction, safe operation, and maintenance of the project.

7.2 TOPSOIL PROTECTION

The permittee shall implement measures to protect and segregate topsoil from subsoil in cultivated lands unless otherwise negotiated with the affected landowner(s).

7.3 SOIL COMPACTION

The permittee shall implement measures to minimize soil compaction of all lands during all phases of the project's life and shall confine compaction to as small an area as practicable.

7.4 LIVESTOCK PROTECTION

The permittee shall take precautions to protect livestock during all phases of the project's life.

7.5 FENCES

The permittee shall promptly replace or repair all fences and gates removed or damaged during all phases of the project's life unless otherwise negotiated with the affected landowner(s). When the permittee installs a gate where electric fences are present, the permittee shall provide for continuity in the electric fence circuit.

7.6 DRAINAGE TILES

The permittee shall take into account the location of drainage tiles during project layout and construction. The permittee shall promptly repair or replace all drainage tiles broken or damaged during all phases of the project's life unless otherwise negotiated with the affected landowner(s).

7.7 EQUIPMENT STORAGE

The permittee shall not locate temporary equipment staging areas on lands under its control unless negotiated with affected landowner(s). Temporary staging areas shall not be located in wetlands or native prairie as defined in Sections 4.6 and 4.7.

7.8 ROADS

7.8.1 PUBLIC ROADS

At least ten (10) working days prior to the pre-construction meeting, the permittee shall identify all state, county, or township roads that will be used for the project and shall notify the Commission and the state, county, or township governing body having jurisdiction over the roads to determine if the governmental body needs to inspect the roads prior to use of these roads. Where practical, existing roadways shall be used for all activities associated with the project. Where practical, all-weather roads shall be used to deliver cement, turbines, towers, assembled nacelles, and all other heavy components to and from the turbine sites.

The permittee shall, prior to the use of such roads, make satisfactory arrangements with the appropriate state, county, or township governmental body having jurisdiction over roads to be used for construction of the project for maintenance and repair of roads that will be subject to extra wear and tear due to transportation of equipment and project components. The permittee shall notify the Commission of such arrangements upon request of the Commission.

7.8.2 TURBINE ACCESS ROADS

The permittee shall construct the least number of turbine access roads it can. Access roads shall be low profile roads so that farming equipment can cross them and shall be covered with Class five gravel or similar material. Access roads shall not be constructed across streams and drainage ways without required permits and approvals from the DNR and the USACE. When access roads are constructed across streams and drainage ways, the access roads shall be designed in a manner so runoff from the upper portions of the watershed can readily flow to the lower portion of the watershed. Access roads shall also be constructed in accordance with all necessary township, county, or state road requirements and permits.

7.8.3 PRIVATE ROADS

The permittee shall promptly repair private roads or lanes damaged when moving equipment or when obtaining access to the site, unless otherwise negotiated with the affected landowner(s).

7.9 CLEANUP

The permittee shall remove all waste and scrap that is the product of construction, operation, restoration, and maintenance from the site and properly dispose of it upon completion of each task. Personal litter, bottles, and paper deposited by site personnel shall be removed on a daily basis.

7.10 TREE REMOVAL

The permittee shall minimize the removal of trees and the permittee shall not remove groves of trees or shelter belts without notification to the Commission and the approval of the affected landowner(s).

7.11 SOIL EROSION AND SEDIMENT CONTROL

The permittee shall develop a soil erosion and sediment control plan and submit the plan to the Commission at least ten (10) working days prior to the pre-construction meeting. This plan may be the same as the storm water pollution prevention plan (SWPPP) submitted to the MPCA as part of the National Pollutant Discharge Elimination System (NPDES) permit application.

The soil erosion and sediment control plan shall address what types of erosion control measures will be implemented during each project phase and shall at a minimum identify: plans for grading, construction, and drainage of roads and turbine pads; necessary soil information; detailed design features to maintain downstream water quality; a comprehensive re-vegetation plan to maintain and ensure adequate erosion control and slope stability and to restore the site after temporary project activities; and measures to minimize the area of surface disturbance. Other practices shall include containing excavated material, protecting exposed soil, and stabilizing restored material and removal of silt fences or barriers when the area is stabilized. The plan shall identify methods for disposal or storage of excavated material. Erosion and sedimentation control measures shall be implemented prior to construction and maintained throughout the project's life.

The permittee shall develop an invasive species prevention plan to prevent the introduction of invasive species on lands disturbed by project construction activities. This requirement may be included as an element of the soil erosion and sediment control plan.

7.12 RESTORATION

The permittee shall, as soon as practical following construction of each turbine, considering the weather and preferences of the affected landowner(s), restore the area affected by any project activities to the condition that existed immediately before construction began, to the extent possible. The time period may be no longer than twelve (12) months after completion of construction of the turbine, unless otherwise negotiated with the affected landowner(s). Restoration shall be compatible with the safe operation, maintenance, and inspection of the project.

7.13 HAZARDOUS WASTE

The permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean-up, and disposal of hazardous wastes generated during any phase of the project's life.

7.14 APPLICATION OF HERBICIDES

The permittee shall restrict herbicide use to those herbicides and methods of application approved by the Minnesota Department of Agriculture and the U.S. Environmental Protection Agency. Selective foliage or basal application shall be used when practicable. The permittee shall contact the landowner or his designee to obtain approval for the use of herbicide prior to any application on their property. The landowner may request that there be no application of herbicides on any part of the site within the landowner's property. All herbicides shall be applied in a safe and cautious manner so as to not damage property, including crops, orchards, tree farms, or gardens. The permittee shall also, at least ten (10) working days prior to the application, notify beekeepers with an active apiary within one mile of the proposed application site of the day the company intends to apply herbicide so that precautionary measures may be taken by the beekeeper.

7.15 PUBLIC SAFETY

The permittee shall provide educational materials to landowners within the site boundary and, upon request, to interested persons about the project and any restrictions or dangers associated with the project. The permittee shall also provide any necessary safety measures, such as warning signs and gates for traffic control or to restrict public access. The permittee shall submit the location of all underground facilities, as defined in Minnesota Statutes, section 216D.01, subdivision 11, to Gopher State One Call.

7.16 EMERGENCY RESPONSE

The permittee shall prepare an emergency response plan (fire protection and medical emergency plan) in consultation with the emergency responders having jurisdiction over the area prior to project construction. The permittee shall submit a copy of the plan to the Commission at least ten (10) working days prior to the pre-construction meeting and a revised plan, if any, at least ten (10) working days prior to the pre-operation compliance meeting. The permittee shall also register the project with the local governments' emergency 911 services.

7.17 TOWER IDENTIFICATION

All turbine towers shall be marked with a visible identification number.

7.18 FEDERAL AVIATION ADMINISTRATION LIGHTING

Towers shall be marked as required by the FAA. There shall be no lights on the towers other than what is required by the FAA. This restriction shall not apply to infrared heating devices used to protect the wind monitoring equipment.

8.0 FINAL CONSTRUCTION

8.1 AS-BUILT PLANS AND SPECIFICATIONS

Within sixty (60) days after completion of construction, the permittee shall submit to the Commission a copy of the as-built plans and specifications. The permittee must also submit this data in a GIS compatible format so that the Commission can place it into the Minnesota Geospatial Information Office's geographic data clearinghouse located in the Department of Administration.

8.2 FINAL BOUNDARIES

After completion of construction, the Commission shall determine the need to adjust the final boundaries of the site required for this project. If done, this permit may be modified, after notice and opportunity for public hearing, to represent the actual site required by the permittee to operate the project authorized by this permit.

8.3 EXPANSION OF SITE BOUNDARIES

No expansion of the site boundaries described in this permit shall be authorized without the approval of the Commission. The permittee may submit to the Commission a request for a change in the boundaries of the site for the project. The Commission will respond to the requested change in accordance with applicable statutes and rules.

9.0 DECOMMISSIONING, RESTORATION, AND ABANDONMENT

9.1 DECOMMISSIONING PLAN

At least ten (10) working days prior to the pre-operation compliance meeting, the permittee shall submit to the Commission a Decommissioning Plan documenting the manner in which the permittee anticipates decommissioning the project in accordance with the requirements of Minnesota Rules 7854.0500, subpart 13. The permittee shall ensure that it carries out its obligations to provide for the resources necessary to fulfill its requirements to properly decommission the project at the appropriate time. The Commission may at any time request the permittee to file a report with the Commission describing how the permittee is fulfilling this obligation.

9.2 SITE RESTORATION

Upon expiration of this permit, or upon earlier termination of operation of the project, or any turbine within the project, the permittee shall have the obligation to dismantle and remove from the site all towers, turbine generators, transformers, overhead and underground cables and lines, foundations, buildings, and ancillary equipment to a depth of four feet. To the extent feasible, the permittee shall restore and reclaim the site to its pre-project topography and topsoil quality. All access roads shall be removed unless written approval is given by the affected landowner(s) requesting that one or more roads, or portions thereof, be retained. Any agreement for removal to a lesser depth or no removal shall be recorded with the county and shall show the locations of all such foundations. All such agreements between the permittee and the affected landowner(s) shall be submitted to the Commission prior to completion of restoration activities. The site shall be restored in accordance with the requirements of this condition within 18 months after expiration.

9.3 ABANDONED TURBINES

The permittee shall advise the Commission of any turbines that are abandoned prior to termination of operation of the project. A project, or any turbine within the project, shall be considered abandoned after one (1) year without energy production and the land restored pursuant to Section 9.2 unless a plan is developed and submitted to the Commission outlining the steps and schedule for returning the project, or any turbine within the project, to service.

10.0 AUTHORITY TO CONSTRUCT LWECS

10.1 WIND RIGHTS

At least ten (10) working days prior to the pre-construction meeting, the permittee shall demonstrate that it has obtained the wind rights and any other rights necessary to construct and operate the project within the boundaries of the LWECS authorized by this Permit.

Nothing in this Permit shall be construed to preclude any other person from seeking a permit to construct a WECS in any area within the boundaries of the project covered by this Permit if the permittee does not hold exclusive wind rights for such areas.

10.2 POWER PURCHASE AGREEMENT

In the event the permittee does not have a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the project at the time this permit is issued, the permittee shall provide notice to the Commission when it obtains a commitment for purchase of the power. This permit does not authorize construction of the Project until the permittee has obtained a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the Project. In the event the permittee does not obtain a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the project within two years of the issuance of this permit, the permittee must advise the Commission of the reason for not having such commitment. In such event, the Commission may determine whether this permit should be amended or revoked. No amendment or revocation of this permit may be undertaken except in accordance with applicable statutes and rules, including Minnesota Rules 7854.1300.

10.3 FAILURE TO COMMENCE CONSTRUCTION

If the permittee has not completed the pre-construction surveys required under this permit and commenced construction of the project within two years of the issuance of this Permit, the permittee must advise the Commission of the reason construction has not commenced. In such event, the Commission shall make a determination as to whether this Permit should be amended or revoked. No revocation of this Permit may be undertaken except in accordance with applicable statutes and rules, including Minnesota Rules 7854.1300.

10.4 PREEMPTION OF OTHER LAWS

Pursuant to Minnesota Statutes, section 216F.07, this site permit shall be the only site approval required for the location of this project, and this Permit shall supersede and preempt all zoning, building, and land use rules, regulations, and ordinances adopted by regional, county, local, and special purpose governments. Nothing in this Permit shall release the permittee from any obligation imposed by law that is not superseded or preempted by law.

10.5 OTHER PERMITS

The permittee shall be responsible for acquiring any other federal, state, or local permits or authorizations that may be required to construct and operate a LWECS within the authorized site. The permittee shall submit a copy of such permits and authorizations to the Commission upon request.

10.5.1 COMPLIANCE WITH FEDERAL AND STATE AGENCY PERMITS

The permittee shall comply with all terms and conditions of permits or licenses issued by federal, state, or tribal authorities including but not limited to the requirements of the MPCA (Section 401 Water Quality Certification, National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) stormwater permit for construction activity, and other site specific discharge approvals), DNR (License to Cross Public Lands and Water, Public Water Works Permit, and state protected species consultation), SHPO (Section 106 Historic Consultation Act), FAA determinations, and Mn/DOT (Utility Access Permit, Highway Access Permit, Oversize and Overweight Permit, and Aeronautics Airspace Obstruction Permit).

10.5.2 COMPLIANCE WITH COUNTY, CITY, OR MUNICIPAL PERMITS

The permittee shall comply with all terms and conditions of permits or licenses issued by the counties, cities, and municipalities affected by the project that do not conflict with or are not pre-empted by federal or state permits and regulations.

11.0 COMMISSION POST-ISSUANCE AUTHORITIES

11.1 PERIODIC REVIEW

The Commission shall initiate a review of this permit and the applicable conditions at least once every five (5) years. The purpose of the periodic review is to allow the Commission, the permittee, and other interested persons an opportunity to consider modifications in the conditions of this permit. No modification may be made except in accordance with applicable statutes and rules.

11.2 MODIFICATION OF CONDITIONS

After notice and opportunity for hearing, this permit may be modified or amended for cause, including but not limited to the following:

(a) Violation of any condition in this permit;

(b) Endangerment of human health or the environment by operation of the project; or

(c) Existence of other grounds established by rule.

11.3 REVOCATION OR SUSPENSION OF PERMIT

The Commission may take action to suspend or revoke this permit upon the grounds that:

(a) A false statement was knowingly made in the application or in accompanying statements or studies required of the permittee, and a true statement would have warranted a change in the Commission's findings;

(b) There has been a failure to comply with material conditions of this permit, or there has been a failure to maintain health and safety standards; or

(c) There has been a material violation of a provision of an applicable statute, rule, or an order of the Commission.

In the event the Commission determines that it is appropriate to consider revocation or suspension of this permit, the Commission shall proceed in accordance with the requirements of Minnesota Rules 7854.1300 to determine the appropriate action. Upon a finding of any of the above, the Commission may require the permittee to undertake corrective measures in lieu of having this permit suspended or revoked.

11.4 MORE STRINGENT RULES

The Commission's issuance of this site permit does not prevent the future adoption by the Commission of rules or orders more stringent than those now in existence and does not prevent the enforcement of these more stringent rules and orders against the permittee.

11.5 TRANSFER OF PERMIT

The permittee may not transfer this permit without the approval of the Commission. If the permittee desires to transfer this permit, the holder shall advise the Commission in writing of such desire. The permittee shall provide the Commission with such information about the transfer as the Commission requires to reach a decision. The Commission may impose additional conditions on any new permittee as part of the approval of the transfer.

11.6 RIGHT OF ENTRY

Upon reasonable notice, presentation of credentials, and at all times in compliance with the permittee's site safety standards, the permittee shall allow representatives of the Commission to perform the following:

(a) To enter upon the facilities easement of the site property for the purpose of obtaining information, examining records, and conducting surveys or investigations;

(b) To bring such equipment upon the facilities easement of the property as is necessary to conduct such surveys and investigations;

(c) To sample and monitor upon the facilities easement of the property; and

(d) To examine and copy any documents pertaining to compliance with the conditions of this permit.

11.7 PROPRIETARY INFORMATION

Certain information required to be submitted to the Commission under this permit, including energy production and wake loss data, may constitute trade secret information or other type of proprietary information under the Data Practices Act or other law and is not to be made available by the Commission. The permittee must satisfy requirements of applicable law to obtain the protection afforded by the law.

12.0 EXPIRATION DATE

This permit shall expire thirty (30) years after the date this permit was approved and adopted.

13.0 SPECIAL CONDITIONS

Special conditions shall take precedence over any of the other conditions of this Permit if there should be a conflict between the two.

13.1 AVIAN AND BAT PROTECTION PLAN SPECIAL PROVISION

The permittee shall, in cooperation with the Commission, the DNR, and the USFWS, develop protocols to conduct a minimum of one (1) year of avian fatality monitoring after the project becomes operational. The surveys shall target a limited area of six (6) turbines that are proposed to be located in the northwest portion of the project near Wheeler Lake (sections 33 and 34 of Harrison Township), an area of the project with higher avian species abundance and diversity, as identified in the Avian Impact Assessment. Survey protocols shall be included in the Avian and Bat Protection Plan filed by the permittee under Section 6.7 of this permit. The results of the post-construction avian surveys shall be submitted to the Commission. Based on those results, the Commission may modify conditions in this permit pursuant to Section 11.2.

13.2 APPLICATION OF COUNTY STANDARDS

The permittee shall site all wind turbines and associated facilities consistent with the wind energy ordinances adopted by Kandiyohi and Meeker counties.

13.2.1 KANDIYOHI COUNTY

Kandiyohi County has adopted more stringent WECS standards than those identified in Section 4 of this permit for the following features:

a) Rights-of-way Setback: Turbines shall have a setback of 1.1 times total turbine height from the edge of all rights-of-way (roads, railroads, power lines, pipelines, and other recorded rights-of-way).

b) Public Water Inventory (PWI) Wetlands: Turbines shall be setback at least 600 feet from PWI wetlands.

c) Zoning District Regulations: Turbines shall not be located in the zoning districts where prohibited pursuant to Kandiyohi County's WECS Ordinance.

13.2.2 MEEKER COUNTY

Meeker County has adopted more stringent standards than those identified in Section 4 of this permit for the following features:

a) Rights-of-way Setback: Turbines shall have a setback of 1 times total turbine height plus 10 feet from the edge of all rights-of-way (roads, railroads, power lines, pipelines, and other recorded rights-of-way).

b) Wetlands USFWS Types III, IV, and V (five acres or greater): Turbines shall be setback at least three (3) rotor diameters on east-west axis and five (5) rotor diameters on north-south axis from wetlands as defined in Meeker County's LWECS Ordinance.

c) Other Structures: Turbines shall have a setback of 1 times total turbine height plus 10 feet from structures other than homes or dwellings.

d) Zoning District Regulations: Turbines shall not be located in the zoning districts where prohibited pursuant to Meeker County's Windpower Management Ordinance.

Sources:
Municipality Boundaries - MN Department of Natural Resources, 2008
Township Boundaries - MN Department of Natural Resources, 2008
Sections - MN Department of Natural Resources, 2008
Aerial Imagery - Farm Service Administration, 2009

Green Lake
Harrison
Swede Grove
Kandiyohi
Gennessee
Acton
Meeker

41st Ave
45th Ave
105th St
120th St
135th St
165th St
180th St
195th St
202nd St
525th Ave
295th St
283rd St
280th St
30th Ave
38th Ave
4th St
US Hwy 12
Atlantic Ave
2nd St
Lincoln St
Main St
3rd St
6th St
7th St
187th St
1st Ave
County Hwy 4 SE
260th St
250th St
Kandi-meeker Rd
255th St
248th St
245th St
135th Ave
172nd St
15th Ave
37th Ave
157th St
41st Ave
County Hwy 23
515th Ave

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

Legend
- Project Substation & Interconnection Point
- Project Area
- Municipalities
- Townships
- Sections
- Preliminary REpower Turbine Locations

MALCOLM PIRNIE

LAKE COUNTRY Wind Energy

LAKE COUNTRY WIND ENERGY, LLC

LARGE WIND ENERGY CONVERSION SYSTEM

Site Permit Boundary and Preliminary Turbine Layout

0 3,500 7,000 Feet

SCALE: 1" = 3,500'

Docket IP6846/WS-10-798

ATTACHMENT 1

MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES
FOR
LARGE WIND ENERGY CONVERSION SYSTEMS

A. Purpose:

To establish a uniform and timely method of reporting complaints received by the permittee concerning permit conditions for site preparation, construction, cleanup and restoration, operation, and resolution of such complaints.

B. Scope:

This document describes complaint reporting procedures and frequency.

C. Applicability:

The procedures shall be used for all complaints received by the permittee and all complaints received by the Commission under Minnesota Rule 7829.1500 or 7829.1700 relevant to this permit.

D. Definitions:

Complaint: A verbal or written statement presented to the permittee by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other LWECS and associated facilities site permit conditions. Complaints do not include requests, inquiries, questions, or general comments.

Substantial Complaint: A written complaint alleging a violation of a specific site permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A complaint which, despite the good faith efforts of the permittee and a person(s), remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing:

1. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:

    a. Name of complainant, address, phone number, and e-mail address.
    b. Precise property description or parcel number.
    c. Name of permittee representative receiving complaint and date of receipt.
    d. Nature of complaint and the applicable site permit conditions(s).
    e. Activities undertaken to resolve the complaint.
    f. Final disposition of the complaint.

2. The permittee shall designate an individual to summarize complaints to the Commission. This person's name, phone number and e-mail address shall accompany all complaint submittals.

3. A person presenting the complaint should to the extent possible, include the following information in their communications:

    a. Name, address, phone number, and e-mail address.
    b. Date
    c. Tract or parcel
    d. Whether the complaint relates to (1) a site permit matter, (2) a LWECS and associated facility issue, or (3) a compliance issue.

F. Reporting Requirements:

The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to Wind Permit Compliance, 1-800-657-3794, or by e-mail to: DOC.energypermitcompliance@state.mn.us, or voice messages are acceptable.

Monthly Reports: By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed to Dr. Burl W. Haar, Executive Secretary, Public Utilities Commission, using the Minnesota Department of Commerce eDocket system (see eFiling instructions attached to this permit).

If no complaints were received during the preceding month, the permittee shall submit (eFile) a summary indicating that no complaints were received.

G. Complaints Received by the Commission or OES:

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the permittee.

H. Commission Process for Unresolved Complaints:

Initial Screening: Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantial LWECS site permit issues shall be processed and resolved by the Commission. Staff shall notify permittee and appropriate person(s) if it determines that the Complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten (10) days after receipt of the staff notification. Staff shall present briefing papers to the Commission, which shall resolve the complaint within 20 days of submission of the briefing papers.

I. Permittee Contacts for Complaints:

Complaints filed by mail or e-mail shall be sent to the address below:

Chuck Burdick
Lake Country Wind Energy, LLC
706 2nd Avenue South, Suite 1200
Minneapolis, MN 55402

Telephone: 612-746-6638

e-mail: cburdick@nationalwind.com

ATTACHMENT 3

MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE
FOR PERMITTED ENERGY FACILITIES

1. Purpose

To establish a uniform and timely method of submitting information required by the Commission energy facility permits.

2. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

3. Definitions

Compliance Filing – A sending (filing) of information to the Commission, where the information is required by a Commission site or route permit.

4. Responsibilities

A) The permittee shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Minnesota Public Utilities Commission, through the Department of Commerce (DOC) eDocket system. The system is located on the DOC website: https://www.edockets.state.mn.us/EFiling/home.jsp

General instructions are provided on the website. Permittees must register on the website to eFile documents.

B) All filings must have a cover sheet that includes:

1) Date
2) Name of submitter / permittee
3) Type of Permit (Site or Route)
4) Project Location
5) Project Docket Number
6) Permit Section Under Which the Filing is Made
7) Short Description of the Filing

Filings that are graphic intensive (e.g., maps, plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Minnesota Department of Commerce, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198. Additionally, the Commission may request a paper copy of any eFiled document.

PERMIT COMPLIANCE FILINGS[1]

PERMITTEE: Lake Country Wind Energy, LLC
PERMIT TYPE: LWECS Site Permit
PROJECT LOCATION: Kandiyohi County
COMMISSION DOCKET NUMBER: IP6846/WS-10-798

PRE-CONSTRUCTION MEETING

Filing Number	Permit Section	Description	Due Date	Notes
1	4.7	Native Prairie Protection Plan	Ten (10) working days prior to pre-construction meeting, if required	Develop in consultation with Commission and DNR
2	5.1	Site Plan	Ten (10) working days prior to pre-construction meeting	
3	5.4	Field Representative	Ten (10) working days prior to pre-construction meeting	
4	5.8	Complaint Reporting Procedures	Ten (10) working days prior to pre-construction meeting and complaint submittals on the 15th of each month or within 24 hours	
5	6.1	Biological & Natural Resource Inventories and Wetland Field Surveys	30 working days prior to pre-construction meeting	Results may trigger need for a Native Prairie Protection Plan

[1] This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. However, it is not a substitute for the permit; the language of the permit controls.

Filing Number	Permit Section	Description	Due Date	Notes
6	6.2	Shadow Flicker Analysis	Ten (10) working days prior to pre-construction meeting	
7	6.3	Archaeological Resources – Phase 1 or 1A Archaeological Survey	Ten (10) working days prior to pre-construction meeting and as recommended by the State Historic Preservation Office	

PRE-CONSTRUCTION MEETING

Filing Number	Permit Section	Description	Due Date	Notes
8	6.4	Interference Assessment	Ten (10) working days prior to pre-construction meeting	
9	6.5	Wake Loss Studies	Ten (10) working days prior to pre-construction meeting and may be included with site plan or operation studies if performed	
10	6.7	Avian and Bat Protection Plan	Ten (10) days prior to pre-construction meeting	Develop in consultation with Commission, DNR, and USFWS
11	7.8	Roads	Ten (10) working days prior to pre-construction meeting	Develop in consultation with state, county, and township agencies
12	7.11	Soil Erosion and Sediment Control Plan	Ten (10) working days prior to pre-construction	May be the same as SWPPP submitted to MPCA as part of the NPDES permit application

Filing Number	Permit Section	Description	Due Date	Notes
13	7.16	Emergency Response	Ten (10) working days prior to pre-construction meeting. Must register in 911 Program	Also ten (10) working days prior to pre-operation, if revised
14	10.1	Wind Rights	Ten (10) working days prior to pre-construction meeting	

PRE-OPERATION COMPLIANCE MEETING

Filing Number	Permit Section	Description	Due Date	Notes
15	6.6	Noise Study Protocol	Ten (10) working days prior to pre-operation meeting	
16	9.1 & 9.3	Decommissioning Plan	Ten (10) working days prior to commercial operation	

OTHER REQUIREMENTS

Filing Number	Permit Section	Description	Due Date	Notes
17	5.2	Notice to Landowners and Government Agencies	Within ten (10) working days of permit approval	
18	5.5	Site Manager	Ten (10) working days prior to prior to commercial operation	

Filing Number	Permit Section	Description	Due Date	Notes
19	6.6	Noise Study Results	Within 18 months after commercial operation, if required	
20	6.7	Avian and Bat Reporting Requirements	Quarterly requirements	
21	6.8	Project Energy Production Report	Due February 1st each year or quarterly	
22	6.9	Wind Resource Use	Upon request of the Commission	
23	6.10	Extraordinary Events	Within 24 hours and report on occurrence of event within 30 days	
24	8.1	As-Built Plans and Specifications	Within 60 days of completion of construction	
25	10.3	Failure to Start Construction	Within 2 years of permit issuance	