

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
Joseph K. Sullivan	Commissioner
John A. Tuma	Commissioner

In the Matter of the Application of Buffalo Ridge Wind Energy, LLC for a Certificate of Need for the 109 MW Large Wind Energy Conversion System in Lincoln and Pipestone Counties, Minnesota

ISSUE DATE: January 5, 2021

DOCKET NO. IP-7006/CN-19-309

DOCKET NO. IP-7006/WS-19-394

In the Matter of the Application of Buffalo Ridge Wind Energy, LLC for a Site Permit for the 109 MW Large Wind Energy Conversion System in Lincoln and Pipestone Counties, Minnesota

ORDER GRANTING CERTIFICATE OF NEED AND ISSUING SITE PERMIT

PROCEDURAL HISTORY

I. The Applications

On July 12, 2019, Buffalo Ridge Wind, LLC (Buffalo Ridge or the Applicant) filed an application for a certificate of need for a 109-megawatt (MW) large wind energy conversion system in Lincoln and Pipestone Counties (the Project).¹

On July 17, 2019, Buffalo Ridge filed an application for a site permit for the Project.²

On August 9 and 12, 2019, Buffalo Ridge filed updated certificate-of-need and site-permit applications reflecting modifications to the turbine array to adjust noise levels.

On August 22, 2019, Laborers' International Union of America Minnesota & North Dakota (LIUNA) filed petitions to intervene in the need and siting dockets.

On November 12, 2019, the Commission issued orders accepting the certificate-of-need and site-permit applications as substantially complete, granting LIUNA's petitions to intervene, and requesting the appointment of an administrative law judge (ALJ) to develop the record and to

¹ *In the Matter of the Application of Buffalo Ridge Wind Energy, LLC for a Certificate of Need for the 109 MW Large Wind Energy Conversion System in Lincoln and Pipestone Counties, Minnesota*, Docket No. IP-7006/CN-19-309 (the need docket).

² *In the Matter of the Application of Buffalo Ridge Wind Energy, LLC for a Site Permit for the 109 MW Large Wind Energy Conversion System in Lincoln and Pipestone Counties, Minnesota*, Docket No. IP-7006/WS-19-394 (the siting docket).

prepare a report with findings of fact, conclusions of law, and any recommendations on the merits of the site-permit application and conditions and provisions of the site permit.³

On February 21, 2020, Buffalo Ridge filed amendments to its certificate-of-need and site-permit applications which would modify turbine technology and layout to mitigate potential impacts on a common air route surveillance radar, addressing concerns raised by federal agencies.

On June 5, 2020, Buffalo Ridge filed second amendments to its certificate-of-need and site-permit applications further adjusting the turbine array and modifying the Project schedule.

II. Environmental Review

On November 15, 2019, the Commission issued a notice of public information and scoping meeting and a request for public comments on impacts, mitigation, alternatives, and other issues relevant to the development of the scope of the environmental report and the draft site permit.

On December 5, 2019, the Minnesota Department of Commerce's Energy Environmental Review and Analysis unit (DOC-EERA) and the Commission held the public information and scoping meeting in Lake Benton. Six members of the public spoke.⁴

After the scoping meeting, written public comments were accepted through December 27, 2019. The Minnesota Department of Transportation (MnDOT), the Minnesota Department of Natural Resources (the DNR), and three individual members of the public submitted comments in this period. No one proposed alternatives to the Project for consideration in the environmental report.⁵

On January 13, 2020, the Minnesota Association of Soil and Water Conservation Districts filed a resolution stating its intention to ensure an opportunity for local soil and water conservation districts and landowners to review and comment on the Project before construction.

On January 13, 2020, DOC-EERA filed its scoping decision identifying the issues to be addressed in the environmental report and three alternatives to be considered: a generic 109-MW wind farm located elsewhere in Minnesota, a 109-MW solar farm, and the no-build alternative.

DOC-EERA filed the environmental report on March 5, 2020. On June 23, 2020, DOC-EERA filed a revised environmental report reflecting Buffalo Ridge's amendments to both applications.

III. Draft Site Permit and Department of Commerce Recommendations

On January 24, 2020, DOC-EERA filed a proposed preliminary draft site permit with comments explaining special conditions and recommending that the Commission issue the draft site permit.

³ Need docket, Order Accepting Application, Directing Use of Informal Review Process and Other Action (November 12, 2019); siting docket, Order Accepting Application, Establishing Procedural Framework, and Varying Rules (November 12, 2019).

⁴ The ALJ's report summarizes comments made at the meeting. Need and siting dockets, Findings of Fact, Conclusions of Law, and Recommendation (ALJ Report), Findings ¶¶ 79–85 (October 1, 2020).

⁵ Written public comments are summarized in the ALJ Report. *Id.*, Findings ¶¶ 86–96.

On February 26, 2020, the Commission authorized the issuance of the draft site permit.⁶

On March 2, 2020, the Minnesota Department of Commerce's Division of Energy Resources (DOC-DER) filed comments recommending that the Commission grant the certificate of need.

On August 3 and September 4, 2020, DOC-EERA filed proposed revisions to draft-site-permit conditions relating to avian and bat protections and the decommissioning plan.

IV. Public Hearing and Comments

On June 19, 2020, the Commission issued a notice of public hearing and comment period in both dockets regarding the environmental report, the merits of the Project, and site-permit conditions.

On July 22, 2020, the ALJ presided over the joint public hearing in both dockets. DOC-EERA asked Buffalo Ridge questions about the Project, and six members of the public spoke.⁷

After the hearing, written comments were accepted through August 3, 2020. DOC-EERA, LIUNA, the DNR, the Nature Conservancy, the International Union of Operating Engineers Local 49 (Local 49), and three individuals submitted comments. One of the individuals, Justin Erdman, submitted a second comment on August 25, 2020, objecting to turbines planned near his residence.⁸

On August 21, 2020, Buffalo Ridge filed reply comments and proposed findings of fact, conclusions of law, and a recommendation. On August 31, 2020, Buffalo Ridge filed an additional comment responding to Mr. Erdman's second written comment.

V. ALJ Report

On October 1, 2020, the ALJ filed findings of fact, conclusions of law, and a recommendation that the Commission issue a site permit for the Project (the ALJ Report).

On October 19, 2020, DOC-EERA filed an exception which recommended adding a paragraph to one finding, but otherwise concurred with the ALJ Report and recommendation.

On October 19, 2020, Buffalo Ridge filed a letter stating it had no exceptions to the ALJ Report and did not object to the addition proposed in DOC-EERA's exception.

On December 3, 2020, the Commission met to consider the certificate-of-need and site-permit applications.

⁶ Siting docket, Order (February 26, 2020).

⁷ The ALJ Report summarizes the comments made at the hearing. ALJ Report, Findings ¶¶ 97–111.

⁸ Written public comments are summarized in the ALJ Report. *Id.*, Findings ¶¶ 112–126.

FINDINGS AND CONCLUSIONS

I. Summary of Commission Action

In this order, the Commission will (1) determine that the environmental report and the record developed in this matter adequately address the issues identified in the scoping decision, (2) grant a certificate of need for the Project, (3) adopt the ALJ's findings of fact and conclusions of law with the exception proposed by DOC-EERA, and (4) issue a site permit for the Project.

II. The Project

Buffalo Ridge, an independent power producer, requests a certificate of need and a site permit to build an approximately 109-MW wind farm consisting of 40 turbines. The Project would also include underground collection and feeder lines, gravel access roads, a meteorological tower, an operation and maintenance building, and an aircraft detection lighting system. The Project would spread across 17,609 acres of mostly agricultural land in Lincoln and Pipestone Counties.

Buffalo Ridge plans to begin construction in mid-2021 and expects the Project will be in service by November 2021. Great River Energy (Great River), an electric cooperative, has executed a 25-year power purchase agreement to purchase all energy output from the Project.

III. Environmental Report

A. Legal Standard

Before the Commission may grant a certificate of need for a large electric generating plant, the Department of Commerce must prepare an environmental report addressing the human and environmental impacts of the project, alternatives to the project, and impact mitigation.⁹ The environmental report is shaped by a scoping process in which members of the public may suggest alternatives to the project, potential impacts, and mitigation opportunities to address in the environmental report.¹⁰ The Department of Commerce then issues a scoping decision.¹¹

Minn. R. 7849.1800, subp. 2, requires the Commission to determine whether the environmental report and the record address the issues identified in the scoping decision.

B. Content of the Scoping Decision and Environmental Report

DOC-EERA's scoping decision lists the issues to be addressed in the environmental report, including impacts on air quality, water resources, soil and hazardous wastes, natural resources, human and social environment, associated electrical facilities and existing infrastructure, fuel availability, and agriculture. The scoping decision also identifies three alternatives for study: a generic 109-MW wind farm located elsewhere in Minnesota, a 109-MW solar farm, and the no-build alternative.

⁹ Minn. R. 7849.1200.

¹⁰ Minn. R. 7849.1400, subps. 1–4.

¹¹ *Id.*, subp. 7.

The environmental report prepared by DOC-EERA contains thorough analyses of the potential Project impacts identified in the scoping decision and possible mitigation measures. Additionally, the environmental report analyzes the impacts, feasibility, and availability of the three alternatives identified, including direct comparisons between each alternative and the Project as proposed.

Comparing the Project to a generic 109-MW wind farm sited elsewhere in Minnesota, the environmental report concluded that the proposed Project would likely cause fewer bat fatalities, and equal or slightly fewer bird fatalities, than the alternative. The environmental report concluded that a solar farm would likely have greater impacts on land use and agriculture but lower impacts on wildlife, noise, and aesthetics than a wind farm. With respect to the no-build alternative, the environmental report indicated that opting to build neither this Project nor any alternative could reduce the state's ability to meet renewable-energy goals, could result in adverse environmental and public-health impacts if non-renewable sources replace the proposed wind energy, and would result in a loss of anticipated economic benefits to the Project region.

C. Commission Action

The Commission has reviewed the environmental report and the record and finds that they adequately address the issues identified in the scoping decision.

IV. Certificate of Need

Anyone seeking to build a large energy facility in Minnesota must obtain a certificate of need from the Commission.¹² The proposed Project is a large energy facility requiring a certificate of need because it is a large electric power generating plant with at least 50-MW capacity.¹³

A. Legal Standard

The Commission shall not issue a certificate of need unless the applicant shows that electricity demand cannot be met more cost effectively through conservation and load-management measures and the applicant has otherwise justified the need for the proposed facility.¹⁴

In assessing the need for a large energy facility, the Commission evaluates the 12 factors listed in Minn. Stat. § 216B.243, subd. 3. Statutory factors include the accuracy of the demand forecasts supporting the need for the facility, the facility's relationship to overall state energy needs, and the facility's benefits to environmental quality and energy reliability.¹⁵ The Commission considers the environmental report in deciding whether to grant a certificate of need.¹⁶

¹² Minn. Stat. § 216B.243, subd. 2.

¹³ Minn. Stat. § 216B.2421, subd. 2(1).

¹⁴ Minn. Stat. § 216B.243, subd. 3.

¹⁵ *Id.*

¹⁶ Minn. R. 7849.1800, subp. 1.

Under Minn. R. 7849.0120, the Commission must issue a certificate of need if it determines:

- A. the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states;
- B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record;
- C. by a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health; and
- D. the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

The rule sets out several sub-factors to consider in evaluating factors A through C.¹⁷

B. DOC-DER's Analysis and Recommendation

DOC-DER filed comments including a thorough analysis of the need for the Project. DOC-DER recommended that the Commission grant the certificate of need if the Commission finds the potential impacts identified in the environmental report acceptable. In reaching its recommendation, DOC-DER analyzed the applicable considerations and criteria of Minn. Stat. § 216B.243 and Minn. R. 7849.0120, as summarized below.

1. Future Adequacy, Reliability, or Efficiency of Energy Supply

Because Buffalo Ridge is an independent power producer without its own system, the Commission ordered the Applicant to submit data pertaining to the system demand and future renewable energy needs of Great River, the electric cooperative that contracted to purchase power from the Project, for use in evaluating the need for the Project.¹⁸

DOC-DER reviewed Buffalo Ridge's argument that the Project is needed to help Great River meet its members' projected energy demand, reach its goal to source 50% of retail electric sales from renewable resources by 2030, and exceed state renewable-energy and emissions-reduction standards. DOC-DER found the demand forecast reasonable and concluded that the Project is

¹⁷ See Minn. R. 7849.0120.

¹⁸ Need docket, Order (July 3, 2019).

consistent with Great River's integrated-resource-plan modeling, which indicates that adding wind power purchase agreements is the least-cost option to achieve Great River's objectives.

DOC-DER concluded that the Project fits the state's overall energy needs because it would help meet future energy demand while furthering state goals to increase renewable energy and reduce greenhouse-gas emissions. Based on modeling from recently approved integrated resource plans, DOC-DER stated that Minnesotans are expected to demand more electricity over time and that most utilities are planning to add wind-generation capacity.

DOC-DER concluded that existing facilities and planned facilities not requiring certificates of need have not been shown to be more reasonable than the proposed Project. DOC-DER stated that facilities small enough to be exempt from the certificate-of-need requirement would not benefit as much from economies of scale or contribute as substantially to Great River's objectives. DOC-DER noted that no party had identified any alternative planned generation facility for consideration in the need analysis.

DOC-DER stated that the reliability component of the analysis is satisfied through a study of the Project's impact on transmission grid reliability, which is being conducted by the transmission grid operator, Midcontinent Independent System Operator, Inc. (MISO).

Therefore, DOC-DER recommended that the Commission conclude that the probable result of denial of the certificate of need would be an adverse effect on the future adequacy, reliability, or efficiency of energy supply to the Applicant, to the Applicant's customers, or to the people of Minnesota and neighboring states, satisfying Minn. R. 7849.0120(A).

2. Reasonable and Prudent Alternatives

DOC-DER concluded that Great River could not fulfill the Project's objectives through conservation efforts or upgrading existing facilities.

DOC-DER found the size and timing of the Project to be reasonable based on modeling from Great River's integrated resource plan, which showed that adding 100 to 2,500 MW of wind resources would be cost effective in the 2029 to 2032 timeframe. DOC-DER concluded that the project type is appropriate because Great River is specifically looking to add renewable energy to meet certain objectives, and wind is a low-cost option.

DOC-DER concluded that Buffalo Ridge's analysis, based on data from the U.S. Department of Energy, demonstrated that the Project and the energy it will generate are lower cost than reasonable alternative renewable sources and would avoid air-quality externality costs that would come with fossil-fuel generation.

Based on the above considerations, DOC-DER recommended that the Commission conclude that a more reasonable and prudent alternative has not been demonstrated by a preponderance of the evidence under Minn. R. 7849.0120(B).

3. Environmental and Societal Benefits

DOC-DER concluded that the Project would have many environmental and societal benefits including helping Great River meet its renewable-energy goals, helping to meet current and

future energy needs, adding a low-cost, emissions-free source of electricity generation, increasing local tax base, providing lease payments to turbine-site landowners, and creating jobs. DOC-DER stated that the environmental report would further inform the socioeconomic analysis under Minn. R. 7849.0120(C).

4. Compliance with Existing Policies, Rules, and Regulations

Buffalo Ridge's application included a list of local, state, and federal agencies from which the Project may require permits and approvals. DOC-DER stated that it had no reason to believe the Project would fail to comply with any of these agencies' requirements. Accordingly, DOC-DER recommended that the Commission conclude that the record does not demonstrate that the design, construction, or operation of the proposed facility will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments for purposes of Minn. R. 7849.0120(D).

C. Commission Action

The Commission has evaluated the considerations and criteria set forth in Minn. Stat. § 216B.243, subd. 3 and Minn. R. 7849.0120, considering the entire record, including the environmental report, party and public comments, and the ALJ Report. As discussed below, the Commission concludes that the Project meets the applicable criteria and that Buffalo Ridge has justified the need for the Project. Therefore, the Commission will grant a certificate of need.

1. Future Adequacy, Reliability, or Efficiency of Energy Supply

The Commission concludes that the probable result of denial of a certificate of need for the Project would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to Great River and its members or to the people of Minnesota and neighboring states.

The 109-MW wind Project will provide a low-cost source of energy to meet the reasonably forecasted energy needs of Great River's members and Minnesota ratepayers while helping Great River and the state meet renewable energy goals. It has not been demonstrated that the demand for renewable energy could be met in a more reasonable or cost-effective manner by any combination of existing facilities or planned facilities not requiring certificates of need.

2. Reasonable and Prudent Alternatives

The Commission finds that a more reasonable and prudent alternative to the Project has not been demonstrated by a preponderance of the evidence on the record.

The Commission agrees with DOC-DER's conclusions that the type, size, and timing of the Project are reasonable. Additionally, none of the alternatives evaluated in the environmental report or in the application materials have been demonstrated to be more reasonable and prudent than this Project.

3. Environmental and Societal Benefits

By a preponderance of the evidence on the record, the Commission concludes that the Project will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health.

The environmental report and other information in the record demonstrate that the Project will provide low-cost wind energy that will help Great River and the state meet renewable-energy needs and emissions-reduction objectives. The Project will also benefit the local economy with jobs, landowner lease payments, taxes, and local spending. Conditions in the site permit discussed below will further ensure the Project's compatibility with protecting the natural and human environments.

4. Compliance with Existing Policies, Rules, and Regulations

The Commission concludes that the record does not demonstrate that the design, construction, or operation of the Project will fail to comply with any relevant policies, rules, or regulations of other state or federal agencies or local governments.

Several government authorities participated in the need and siting dockets, and their comments have been considered. Additionally, the consultation necessary for Buffalo Ridge to obtain all requisite permits and approvals from state, local, and federal authorities will help ensure that the Project complies with applicable policies, rules, and regulations.

V. Site Permit

Anyone seeking to construct a large wind energy conversion system must obtain a site permit from the Commission.¹⁹ The proposed Project is a large wind energy conversion system as defined by the statute because it is a wind energy conversion system having 5-MW capacity or more.²⁰ Therefore, a site permit is needed.

A. Legal Standard

The Commission will not issue a site permit for a large wind facility unless it determines that the proposed project is compatible with environmental preservation, sustainable development, and the efficient use of resources, and the applicant has complied with chapter 7854 of the Commission's rules.²¹ When deciding whether to issue a site permit, the Commission is guided by the state policy goals and the 12 considerations set forth in Minn. Stat. § 216E.03, subd. 7.

¹⁹ Minn. Stat. § 216F.04(a); Minn. R. 7854.0300, subp. 1.

²⁰ Minn. Stat. § 216F.01, subd. 2.

²¹ Minn. R. 7854.1000; *see* Minn. Stat. § 216F.03.

B. Comments

1. DOC-EERA

DOC-EERA filed a proposed preliminary draft site permit and recommended that the Commission issue it as a draft. DOC-EERA included two special conditions, 6.1 and 6.2, to address specific concerns raised in public comments.

Special condition 6.1 would require Buffalo Ridge to work with landowner Leslie Wigton to relocate underground collection cables if necessary to avoid impacts on his drain-tile system and wildlife habitat. DOC-EERA stated that Mr. Wigton had reviewed special condition 6.1 and indicated it addressed his concerns.

Special condition 6.2 would provide the local soil and water conservation district and participating landowners the opportunity to review and comment on infrastructure plans to minimize potential water diversion and erosion issues. DOC-EERA stated that the Pipestone Soil and Water Conservation District manager had reviewed and agreed to the language proposed for special condition 6.2.

Other conditions in DOC-EERA's proposed permit address various other concerns raised in public comments, including coordination with MnDOT and other road authorities, natural resource protection, local and non-local labor statistics, noise, shadow flicker,²² radio and television interference, project lighting, and decommissioning.

2. LIUNA

LIUNA supported Buffalo Ridge's proposal, contending that the Project will create hundreds of jobs, contribute millions of dollars in landowner lease payments and county tax revenue, and generate economic activity in southwestern Minnesota. LIUNA argued that this stimulus is especially needed now to help recover from the economic impacts of the COVID-19 pandemic.

3. MnDOT

MnDOT filed comments requesting that the site permit include a condition requiring Buffalo Ridge to obtain all relevant permits from road authorities. MnDOT recommended coordination with MnDOT when planning construction activities that may affect public roads.

Additionally, MnDOT proposed a permit condition that would state MnDOT's preference that one of the proposed access roads be replaced with an existing access road or relocated to intersect with County Road 6 rather than U.S. 14. MnDOT also proposed a permit condition requesting the submission of a crossing plan for the crane path affecting U.S. 14, a traffic control plan, and a detour plan for temporary trunk highway closures.

²² Shadow flicker is an intermittent change in light intensity due to rotating wind turbine blades casting shadows on the ground. *See* siting docket, Appendices and Redline Changes to Revised Application for Site Permit, at Appendix D, sec. 2.0 (August 12, 2020).

4. DNR

The DNR recommended that turbines be located an additional 200 feet beyond the wind access buffer from DNR-administered lands in case future repowering may require expansion. Additionally, DNR stated that the Project area overlaps with important bird habitat and that locating turbines farther from that area could benefit a nearby wildlife-management area.

The DNR requested that Buffalo Ridge provide information about a possible calcareous fen—a protected type of wetland—located near one turbine, so it may review potential construction impacts and determine whether a fen-management plan may be required. Additionally, the DNR noted that an underground collection line is expected to intersect with a state-designated site of moderate biodiversity significance. The DNR indicated its understanding that Buffalo Ridge would use horizontal directional drilling to avoid adverse impacts to the site and would describe impact-avoidance measures in its prairie protection and management plan.

5. Public Comments

The Nature Conservancy filed a written comment recommending the relocation of some turbines to avoid impacts to native prairie wildlife, and requesting that the Commission delay a certificate of need and site permit until these concerns are addressed. However, it subsequently withdrew its request, stating that it would collaborate with Buffalo Ridge on prairie management.

Local 49 made oral comments supporting the Project as a source of local jobs, but it also filed a written comment expressing a concern that Buffalo Ridge had not formally committed to using local labor and paying area wage standards for skilled workers.

Several individual members of the public—including Lake Benton mayor Bob Worth and residents, farmers, and workers in the region—spoke and submitted written comments on the Project. Most of the individual public commenters expressed support for the Project as a source of low-cost energy or local economic benefits.

Carol Overland submitted a written comment objecting to the use of a ground factor higher than 0.0 in noise modeling in various wind dockets, including the Buffalo Ridge siting docket.²³

Justin Erdman, a non-participating resident in the Project area, submitted two written comments questioning the Project’s local benefits, arguing that landowners should be compensated for noise and shadow flicker, and objecting to the proposed location of turbines near his residence.

6. DOC-EERA’s Reply

On August 3, 2020, DOC-EERA filed reply comments with proposed revisions to the draft site permit. The proposed permit revisions would revise the language of conditions 7.5 through 7.12, pertaining to avian and bat protection, and condition 11.1, regarding the decommissioning plan.

²³ Ground attenuation or “ground factor” is used to account for the effect of ground conditions on the level of noise received by a person standing on the ground. A ground factor of 0.0 represents a reflective surface such as pavement, which results in a higher level of noise reaching the receiver. A ground factor of 1.0 represents absorptive ground such as thick grass, which results in a lower level of noise received.

On September 4, 2020, DOC-EERA proposed additional modifications to the language in conditions 7.5.1 through 7.5.4 and an additional paragraph in section 11.1. Otherwise, DOC-EERA stated that Buffalo Ridge's proposed findings of fact supported all of DOC-EERA's recommended permit revisions, and that there were no outstanding or unresolved issues.

7. Buffalo Ridge's Reply

Buffalo Ridge agreed to all of DOC-EERA's proposed changes to the draft site permit.

In response to the DNR's comments, Buffalo Ridge stated that it will coordinate with the DNR on underground-collection-line impacts and submit a prairie protection and management plan. Buffalo Ridge stated it does not believe turbine relocations are warranted because, to the extent possible, turbines are sited in already-disturbed cropland to minimize environmental impacts.

In response to Local 49's concern, Buffalo Ridge stated that it had committed using reasonable efforts to employ at least 60% Minnesota residents for construction labor.

In response to Justin Erdman's comments, Buffalo Ridge stated that the Project complies with applicable noise standards and will comply with permit conditions to mitigate shadow flicker.

In the public hearing, responding to DOC-EERA's question about the use of a 0.5 ground factor in noise modeling, Buffalo Ridge contended that 0.5 would produce a conservative but realistic model of sound likely to be received based on actual ground conditions in the Project area.

C. The ALJ's Recommendation

1. ALJ Report

The ALJ issued a well-reasoned and thorough report detailing the proceedings, the evidence in the record, the arguments of parties and public participants, and various issues raised and discussed in the process of evaluating the merits of the Project and developing the site permit.

The ALJ concluded that all procedural requirements for obtaining a site permit have been met. Additionally, the ALJ concluded that the draft site permit, as modified by DOC-EERA's comments, contains important mitigation measures and other reasonable conditions on which the site permit should be conditioned. The ALJ concluded that the Project, subject to the proposed permit conditions, satisfies the site-permit criteria for a large wind energy conversion system under Minn. Stats. §§ 216F.03 and 216E.03, subd. 7, meets all other applicable legal requirements, and does not present a potential for significant adverse environmental effects as those terms are used in the Minnesota Environmental Rights Act and the Minnesota Environmental Policy Act.

The ALJ recommended that the Commission issue a site permit with the conditions contained in the draft site permit and recommended in DOC-EERA's comments.

2. Exception to the ALJ Report

None of the ALJ's findings, conclusions, or recommendations are disputed by the parties.

The only exception to the ALJ Report was DOC-EERA's recommendation to add one additional paragraph to the block quotation in Findings ¶ 274. Findings ¶ 274 introduces a quotation as DOC-EERA's proposed condition 11.1, but it quotes only two of the three paragraphs DOC-EERA had proposed for that condition. Thus, DOC-EERA contends that the following third paragraph of condition 11.1 was inadvertently omitted and should be added to that finding:

The Permittee shall also submit the decommissioning plan to the local unit of government having direct zoning authority over the area in which the project is located. 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.²⁴

The Commission agrees that Findings ¶ 274 should be amended to include the full language of condition 11.1 as proposed by DOC-EERA.

3. Commission Action

The Commission has examined the record, considered the ALJ Report, and considered the sole exception to that report. Based on the record, the Commission concurs with the ALJ's findings of fact, conclusions of law, and recommendation. Accordingly, the Commission will adopt the findings, conclusions, and recommendation stated in the ALJ Report, with the addition proposed in DOC-EERA's exception, as attached to this order.

D. Commission Action

Based on a careful consideration of the record and the site-permit criteria of Minn. R. 7854.1000 and Minn. Stat. § 216E.03, the Commission concludes that all procedural requirements have been met and that the Project, subject to the permit conditions contained in the draft site permit and proposed in DOC-EERA's comments, is compatible with environmental preservation, sustainable development, and the efficient use of resources. Accordingly, the Commission will issue the site permit attached to this order.

As detailed in the ALJ Report, the proposed site permit contains reasonable conditions that will mitigate potential impacts and address concerns raised by parties, agencies, and members of the public in the course of these proceedings. Among these are conditions requiring coordination with landowners and various state and local authorities regarding their respective concerns. Additionally, to address landowner concerns about noise and aesthetics, the permit requires Buffalo Ridge to comply with noise standards, conduct a post-construction noise study, file data and modeling regarding shadow flicker, and document mitigation efforts.

²⁴ Siting docket, Exceptions to ALJ (October 19, 2020).

In addition, to ensure adequate communication with affected landowners regarding mitigation of noise and shadow-flicker issues and regarding complaint procedures, the Commission will amend proposed site-permit conditions 7.2 and 7.4 as specified below.

ORDER

1. The Commission determines that the environmental report and the record created in this matter address the issues identified in the scoping decision.
2. The Commission grants a certificate of need for the 109-MW Buffalo Ridge wind farm.
3. The Commission adopts the ALJ's findings of fact, conclusions of law, and recommendation, as attached, with the exception proposed by the Minnesota Department of Commerce's Energy Environmental Review and Analysis unit (DOC-EERA).
4. The Commission issues the attached site permit incorporating the permit conditions recommended by the ALJ, with the exception proposed by DOC-EERA and with the following additions:
 - a. Permit condition 7.2 Shadow Flicker is amended to include a requirement that the permittee shall provide a discussion detailing the communications with all the landowners with the expected shadow flicker of more than 30 hours regarding possible mitigations and the complaint process.
 - b. Permit condition 7.4 Noise Studies is amended to include a requirement that the permittee shall provide a discussion detailing the communications with the residents at receptor 44 regarding possible noise mitigations and the complaint process.
 - c. The results of the above discussions shall be filed with the Commission at least 14 days prior to the pre-construction meeting to confirm compliance.
5. This order shall become effective immediately.

BY ORDER OF THE COMMISSION



Will Seuffert
Executive Secretary



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STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Buffalo Ridge Wind, LLC for a Site Permit for the 109 MW Large Wind Energy Conversion System in Lincoln County, Minnesota

**FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND RECOMMENDATION**

In the Matter of the Application of Buffalo Ridge Wind, LLC for a Certificate of Need for the 109 MW Large Wind Energy Conversion System in Lincoln County, Minnesota

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STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Buffalo Ridge Wind, LLC for a Site Permit for the 109 MW Large Wind Energy Conversion System in Lincoln County, Minnesota

**FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND RECOMMENDATION**

In the Matter of the Application of Buffalo Ridge Wind, LLC for a Certificate of Need for the 109 MW Large Wind Energy Conversion System in Lincoln County, Minnesota

This matter was assigned to Administrative Law Judge Barbara J. Case (ALJ) to conduct a public hearing and provide a summary of public testimony on the Certificate of Need (MPUC Docket No. 19-309) and Site Permit (MPUC Docket No. 19-394) Applications of Buffalo Ridge Wind, LLC (BRW or Applicant). The project proposes a 109 megawatt (MW)¹ wind energy conversion system in Lincoln County and Pipestone Counties (the Project). The Minnesota Public Utilities Commission (Commission) also requested that the ALJ prepare Findings of Fact, Conclusions of Law, and Recommendations on the merits of the Site Permit Application (SP Application) and provide recommendations, if any, on conditions and provisions for the proposed site permit.

A public hearing on the Site Permit and Certificate of Need (CON) Applications for the Project was held remotely, by video and telephone, on July 22, 2020. The time period for written comments from the public remained open until August 3, 2020. Responses were due by August 21, 2020.

Brian M. Meloy, Stinson LLP, 50 South Sixth Street, Suite 2600, Minneapolis, Minnesota 55402, Danell Herzig, Project Director of Development for BRW, and Richard Lampeter, Epsilon Associates, appeared on behalf of the BRW.

Larry Hartman and Raymond Kirsch, 445 Minnesota Street, Suite 1500, St. Paul, MN 55101 appeared on behalf of the Department of Commerce, Energy Environmental Review and Analysis (DOC-EERA).

¹ Due to modifications made during this proceeding, the projected capacity of the Project is 108.9 MW.

Kevin Pranis, Marketing Manager, 81 E. Little Canada Road, St. Paul, MN 55117, appeared on behalf of the Laborers District Council of Minnesota and North Dakota (LIUNA).

Charles E. Bruce, Public Advisor and Cezar Panait, Regulatory Engineer, 121 Seventh Place East, Suite 350, St. Paul, MN 55101 appeared on behalf of the Commission.

STATEMENT OF ISSUE

Has the BRW met the criteria to receive a Site Permit for the proposed approximately 109 MW Large Wind Energy Conversion System (LWECS) located in Lincoln and Pipestone Counties?

SUMMARY OF RECOMMENDATION

The ALJ concludes that BRW has satisfied the applicable legal requirements and, accordingly, recommends that the Commission grant a Site Permit for the Project, subject to the conditions discussed below.

Based on the Application and other evidence in the record, the ALJ makes the following:

FINDINGS OF FACT

I. PARTIES AND PARTICIPANTS

1. BRW is an indirect, wholly-owned subsidiary of NextEra Energy Resources, LLC (NEER).²

2. The DOC-EERA is authorized by Commission rules to hold public information meetings, to collect and analyze an BRW's SP Application and other information, and to provide an environmental report, analysis, and recommendation for the Commission's review.³

3. LIUNA, a democratic labor organization that, together with its five affiliated Local Unions, represents more than 12,000 construction workers and public employees in Minnesota and North Dakota, participated as a party in this proceeding.

II. SITE PERMIT APPLICATION AND RELATED PROCEDURAL BACKGROUND

4. On June 17, 2019, BRW submitted an application to the Commission for a Site Permit to construct and operate the 109 MW Project. The project would be located

² Exhibit (Ex.) 216 – Revised Application for Site Permit at 1 (August 12, 2019) (eDocket No. [20198-155124-01](#)).

³ Minn. R. 7849.1200-1700 (2019).

in Lincoln and Pipestone Counties in southwestern Minnesota, immediately southeast of the City of Lake Benton and southwest of the City of Tyler.⁴ The Application was filed pursuant to Minnesota Statutes, section 216F.04 (2020), and Minnesota Rules, chapter 7854 (2019).

5. On July 24, 2019, the Commission issued a Notice of Comment Period on Application Completeness. The topics opened for comment were: (1) Should the Commission find the site permit application complete under Minnesota Rules, ch. 7854.0500? (2) Are there contested issues of fact with respect to the representations made in the application? (3) Should the application be referred to the Office of Administrative Hearings for a contested case proceeding? and (4) Are there other issues or concerns related to this matter?⁵

6. On August 12, 2019, BRW filed updates to its SP Application filed on July 17, 2019. These updates represented BRW's refinement of its turbine array, following input from DOC-EERA to minimize the projected sound levels of the Project.⁶ The specific updates included:

- Changing turbine technology at certain turbine locations;
- Eliminating two turbines (turbines 16 and 20 as filed in the initial Application);
- Revising alternate turbines (turbines 7, 23, and 30 in the initial Application have been made alternates – these turbines now are Alt2, Alt4, and Alt5, respectively); and
- Running certain turbines (turbines 29, Alt2, Alt4, and Alt5) with noise reduction capability.⁷

7. On August 13, 2019, DOC-EERA provided comments on the completeness of the Application, concluding that it provides the information required by Minnesota Rule, chapter 7854 in a format that members of the public can access.⁸ DOC-EERA staff also recommended that that the SP Application (July 17, 2019 and August 12, 2019 Revisions) and the Certificate of Need Application (CN Application) (July 12, 2019 and August 9, 2019 Revisions) be processed concurrently.⁹

⁴ Ex. 205 – Application for Site Permit at 5 (July 17, 2019) (eDocket No. [20197-154454-01](#)).

⁵ Ex. 304 – Notice of Comment Period (July 24, 2019) (eDocket No. [20195-152961-01](#)).

⁶ Ex. 216 – Revised Application for Site Permit at 1 (cover letter) (August 12, 2019; Ex. 100 – Comments and Recommendations on Application Completeness at 10 (August 13, 2019) (eDocket No. [20198-155166-01](#)).

⁷ Ex. 216 at 2.

⁸ Ex. 100 – Comments and Recommendations on Application Completeness at 10 (August 13, 2019) (eDocket No. [20198-155166-01](#)).

⁹ *Id.* at 12.

8. On August 13, 2019, the Minnesota Pollution Control Agency (MPCA) filed comments on the completeness of BRW's SP Application. MPCA stated in its comments that it did not have any overarching concerns regarding noise from the Project, as related to state noise rules in Minn. R. ch. 7030 (2019), but clarified that the agency treats state noise standards as total standards, which includes noise from wind turbines and other ambient sources.¹⁰ MPCA requested that BRW pay particular attention to and work with receptors #24 (participant), #44 (nonparticipant), and #244 (participant) during development, construction, and operation to ensure noise does not exceed standards set under Minn. R. ch. 7030.¹¹ MPCA also recommended that BRW minimize noise impacts during Project construction, including muffling equipment and working during daytime hours.¹² MPCA also requested to be contacted if wetland impacts cannot be avoided during siting, asked for clarification as to whether horizontal directional drilling would be utilized, noted particular practices that should be employed if compensatory mitigation is required, and requested that the Antidegradation Assessment should be mentioned along with the 401 Water Quality Certification in Section 11.0 of the Application.¹³

9. On August 20, 2019, BRW filed reply comments agreeing to work with the receptors indicated by MPCA, and minimize sound impacts during construction in accordance with MPCA's recommendations. BRW also clarified that in the event that permanent or temporary wetland impacts cannot be avoided during the siting of Project infrastructure, BRW will coordinate with appropriate agencies, including MPCA. BRW also indicated that it may use horizontal directional drilling if drilling is necessary, and clarified that while compensatory mitigation is not anticipated, in the event BRW does engage in compensatory mitigation, it agrees to implement the best management practices (BMPs) as suggested by MPCA. BRW also added the Antidegradation Assessment to the 401 Water Quality Certification in Section 11.0 of the Application.¹⁴

10. On August 22, 2019, LIUNA filed a petition for intervention, indicating that it sought to ensure that wind energy projects are being developed in a manner that advances the interests of local workers and communities, and is consistent with Minnesota's commitment to sustainable development and efficient use of resources.¹⁵

11. On September 10, 2019, BRW filed a letter indicating that it had no objection to LIUNA being granted full party status. BRW also clarified in the letter that although an engineering, procurement, and constructor contractor had not been selected at that time, BRW commits to use reasonable efforts to employ no less than 60% local labor during construction, with local labor defined as residing within Minnesota.¹⁶

¹⁰ Minnesota Pollution Control Agency, Comments at 1, August 13, 2019 (eDocket No. [20198-155152-01](#)).

¹¹ *Id.*

¹² *Id.* at 1-2.

¹³ *Id.* at 2.

¹⁴ Ex. 220 – Reply Comments at 5-7 (August 20, 2019) (eDocket No. [20198-155327-01](#)).

¹⁵ Ex. 501 – Petition for Intervention (August 22, 2019) (eDocket No. [20198-155371-03](#)).

¹⁶ Ex. 222 – Letter Regarding LIUNA Request for Full Party Status (September 10, 2019) (eDocket No. [20199-155782-01](#)).

12. On November 12, 2019, the Commission issued an Order (November 12 Order) accepting the SP Application as substantially complete, granting LIUNA's request to intervene, requesting the appointment of an Administrative Law Judge, establishing a procedural framework for review of the application, and extending procedural timelines for the Commission's completeness determination and issuance of a draft site permit (DSP) as set forth for set forth in its regulations. The Administrative Law Judge was not directed to report on the CON but was requested to:¹⁷

- A. conduct the public hearing in accordance with Minn. R. 7850.3800, subp. 2 to 4, and as the administrative judge determines appropriate, Minn. R. 1405.0500; 1405.0600; 1405.0800; 1405.1900; and 1405.2200;
- B. direct that intervention as a party is not required. Parties to the proceeding are the Department of Commerce, the BRW, and LIUNA. Other persons may participate as public participants or as otherwise prescribed;
- C. request that state agencies participate in accordance with Minn. Stat. § 216E.10, subd. 3, to establish the types of filings necessary to facilitate proper record development (i.e., testimony, briefs, reply briefs, proposed findings and site permit recommendations) and a schedule for submitting those filings through the scheduling of a prehearing conference in accordance with Minn. R. 1405.1100, as determined appropriate;
- D. emphasize the statutory time frame for the Commission to make final decisions on the application and encourage the BRW and others to adhere to a schedule that conforms to the statutory timeframe;
- E. request interested persons to address whether the proposed LWECS project meets the criteria established under Minnesota Statutes chapter 216F and Minnesota Rules, chapter 7854;
- F. prepare a report setting forth findings of fact, conclusions of law, and recommendations on the merits of the LWECS site permit application, and provide recommendations, if any, on conditions and provisions of the proposed site permit; and
- G. direct that the hearing record be maintained through the

¹⁷ Ex. 313 – Commission Order (November 12, 2019) (eDocket No. [201911-157439-01](#)); see also, Dec. 20, 2019 Prehearing Transcript (eDocket No. [201912-158668-01](#)). At the Prehearing Conference in this matter, Commission staff clarified that they would request state agencies to participate in this matter.

Commission's electronic e-Dockets filing system.

13. On November 15, 2019, the Commission issued a Notice of Public Information and Environmental Report Scoping Meeting to take place on December 5, 2019. Through the Notice, the Commission sought comments on the following six questions: (1) What potential human and environmental impacts of the proposed project should be studied in the environmental report and the draft site permit prepared for this project? (2) What are the possible methods to address (avoid, minimize, or mitigate) the potential impacts of the proposed project? (3) Are there other ways to meet the stated need for the project, instead of the proposed wind farm? If so, what alternatives to the project should be studied in the environmental report? (4) Are there any unique characteristics of the proposed site or the project that should be considered? (5) Are there any items missing or mischaracterized in the certificate of need or site permit applications? and (6) Are there other project related issues or concerns?¹⁸

14. As discussed in further detail below, written comments filed prior to the December 27, 2019, notice deadline were received from the Minnesota Department of Transportation (MnDOT), the Minnesota Department of Natural Resources (MnDNR), Carol Overland, Leslie Wigton, and Mike Czech.

15. On December 5, 2019, a Public Information and Environmental Report Scoping Meeting was held at 6:00 p.m. at the Lake Benton Community Center, 114 South Center Street, Lake Benton, MN, 56149. At the meeting, presentations were made by the Staff of the Commission, DOC-EERA, and BRW. The presentation provided detail on the Project, the Environmental Report (ER) to be prepared as part of the CON process, and the procedure for reviewing BRW's applications. As discussed in more detail below, oral comments were received at the meeting from Bob Worth, Mike Appel, Will Thomssen, Jim Nichols, Nate O'Reilly, and Dale Johnson.

16. On December 16, 2019, BRW confirmed that, pursuant to the Commission's November 12, 2019 Order and Minn. R. part 7854.0600, it had completed the applicable post-completion determination notice requirements.¹⁹ BRW confirmed that it provided all required direct mail notices and newspaper publications concerning the Application. It further confirmed that copies of the Application were sent to public libraries and government offices within the Project boundary for public viewing and that a copy of the SP Application was sent to the Minnesota Historical Society.

17. On December 20, 2019, a prehearing conference took place before the Administrative Law Judge, involving representatives from BRW, LIUNA, EERA, and Commission Staff.

18. On January 8, 2020, the Administrative Law Judge issued a Scheduling Order (First Scheduling Order) setting forth the procedural schedule for the review of BRW's applications. The First Scheduling Order set March 6, 2020, as the date for the

¹⁸ Ex. 315 – Notice of Public Meeting (November 15, 2019) (eDocket No. [201911-157565-02](#)).

¹⁹ Ex. 223 – Completion Notice Requirements (December 16, 2019) (eDocket No. [201912-158377-02](#)).

Project's ER to be issued by DOC-EERA, and set March 26, 2020, as the date of the public hearing on the BRW's SP Application.²⁰

19. On January 13, 2020, public comments were filed by the Minnesota Association of County Soil and Water Conservation Districts (MASWCD). It signaled its intent to work with the Commission to ensure that local Soil and Water Conservation Districts and landowners will be provided the opportunity to review and comment on proposed Project plans prior to construction.²¹

20. On January 13, 2020, DOC-EERA filed its ER Scoping Decision. The Scoping Decision reviewed the written and oral comments provided with regard to the ER, set forth the matters to be addressed in the ER, and identified alternatives to the Project (that support Minnesota's renewable energy objectives) to be examined in the ER. For alternatives, the ER specifically identified: (1) a generic 109 MW wind generation project sited elsewhere in Minnesota; (2) a 109 MW solar farm; and (3) a "no-build" option, and other possible renewable alternatives.²²

21. On January 24, 2020, DOC-EERA submitted comments and recommendations addressing whether the Commission should issue a DSP for the Project and suggested conditions to the DSP should the Commission determine to issue one for the Project. DOC-EERA staff recommended the Commission issue a DSP for the Project and, as discussed in more detail below, proposed two special conditions for inclusion in the DSP.²³

22. On February 7, 2020, the Commission issued a Notice of Commission Meeting, notifying parties that the question of whether the Commission should issue a preliminary DSP for the Project would be discussed at the Commission's February 20, 2020 Commission meeting.²⁴

23. On February 11, 2020, the Administrative Law Judge issued an Amended Scheduling Order establishing the dates of March 2, 2020, and March 12, 2020, as the dates for the submission of comments and reply comments, respectively, on the CON Application.²⁵

24. On February 13, 2020, Commission Staff submitted briefing papers in advance of the February 20, 2020 Commission meeting, reviewing comments submitted in the proceedings and recommending issuance of the DSP.²⁶

²⁰ Ex. 601 – Scheduling Order (January 8, 2020) (eDocket No. [20201-158914-01](#)).

²¹ Ex. 102 – Public Comment of MN Assoc. of Soil & Water Conservation Districts (January 13, 2020) (eDocket No. [20201-159059-01](#)).

²² Ex. 103 – Scoping Decision for Environmental Report (January 13, 2020) (eDocket No. [20201-159044-01](#)).

²³ Ex. 106 – DOC EERA Comments and Recommendations on Preliminary Draft Site Permit (January 24, 2020) (eDocket No. [20201-159562-02](#)).

²⁴ Ex. 320 – Notice of Commission Meeting (February 7, 2020) (eDocket No. [20202-160197-04](#)).

²⁵ Ex. 602 – Amended Scheduling Order (February 11, 2020) (eDocket No. [20202-160313-02](#)).

²⁶ Ex. 321 – Staff Briefing Papers (February 13, 2020) (eDocket No. [20202-160386-01](#)).

25. On February 18, 2020, Commission Staff issued corrected briefing papers although carrying forward the same recommendations made in the February 13, 2020, briefing papers.²⁷

26. On February 21, 2020, BRW filed its first Site Permit Application Amendment (First Site Permit Application Amendment) and its first CON Application Amendment (First CON Application Amendment). BRW indicated that these filings were necessary in order to modify the Project's wind turbine technology and layout, and thereby address a Federal Aviation Administration (FAA), Department of Defense (DoD), and U.S. Air Force (USAF) concern that the originally proposed wind turbine array may impact a common air route surveillance radar (CARSR).²⁸ With the First Site Permit Application Amendment, BRW submitted: (1) maps comparing the initial and revised wind turbine arrays;²⁹ revised Project maps;³⁰ a revised pre-construction sound analysis;³¹ a revised shadow flicker analysis;³² and, at the request of DOC-EERA, a decommissioning plan.³³ Details regarding the modifications associated with the First Site Permit Application Amendment and First CON Application Amendment are provided in detail in the sections below.

27. On February 26, 2020, the Commission issued an Order: (1) authorizing issuance of the DSP proposed by DOC-EERA; and (2) authorizing Commission Staff to modify the draft site permit to correct typographic and formatting errors, improve consistency, and ensure agreement with the Commission's final order in the matter.³⁴

28. On March 5, 2020, the ER was filed by DOC-EERA in the CON docket. The ER provided an overview of the Project and its potential environmental impacts as compared to the project alternatives identified in the ER Scoping Decision. The ER found that BRW's project is "feasible and available." In comparing the project to solar power, the report notes that the cost of wind power is more favorable than solar and does not significantly impact crop production as a solar plant would.³⁵ Notice of the availability of the ER was provided in both the CON docket³⁶ and in the Environmental Quality Board Monitor.³⁷

²⁷ Ex. 323 – Staff Briefing Papers – Corrected (February 18, 2020) (eDocket No. [20202-160489-01](#)).

²⁸ Ex. 226 – Site Permit Application Amendment (February 21, 2020); Ex. 225 - Amendment to Certificate of Need Application (February 21, 2020).

²⁹ Ex. 227 – Attachment A to Site Permit Amendment Application (February 21, 2020).

³⁰ Ex. 228 – Attachment B to Site Permit Application Amendment - Maps 1-12a (February 21, 2020); Ex. 29 - Attachment B to Site Permit Application Amendment - Maps 12b-24 (February 21, 2020).

³¹ Ex. 230 – Attachments C and D to Site Permit Application Amendment (February 21, 2020).

³² *Id.*

³³ *Id.*

³⁴ Ex. 324 – Commission Order (February 26, 2020) (eDocket No. [20202-160705-01](#)).

³⁵ Ex. 110 – Environmental Report (Text) at 91 (March 5, 2020) (eDocket No. [20203-161004-01](#)).

³⁶ Ex. 109 – Notice of Availability of Environmental Report (March 5, 2020) (eDocket No. [20203-160977-01](#)).

³⁷ Ex. 108 – Notice of Availability of Environmental Report The EQB Monitor (March 9, 2020) Volume 44, No. 10 (March 9, 2020) (eDocket No. [20203-161205-01](#)).

29. On March 6, 2020, the Commission issued a Notice of Public Hearing to take place on March 26, 2020. The Notice indicated that the hearing's purpose was to receive comments regarding the need for the proposed project and whether additional conditions should be included in the DSP.³⁸ The notice also indicated that a comment period would be open from March 6, 2020, through April 9, 2020, to address topics such as: (1) Is the proposed project needed and in the public interest? (2) What are the costs and benefits of the proposed project? (3) What are the environmental and human impacts of the proposed project and how can these impacts be addressed? (4) Should the Commission issue a certificate of need and a site permit for the project? and (5) Are there other project-related issues or concerns?³⁹

30. On March 16, 2020, the Commission issued a Notice indicating that Commission meetings would be suspended from March 16, 2020, to March 27, 2020, due to the COVID-19 pandemic. This Notice suspended the BRW's hearing scheduled for March 26, 2020.⁴⁰

31. On April 9, 2020, MnDNR submitted comments explaining that it had "recommended that turbines be located an additional 200 feet beyond the existing wind access buffer from DNR administered lands to allow for future repowering. Our concern is that increased rotor diameters and rotor swept zones could encroach on the wind access buffer near DNR administered lands and potentially increase avian and bat fatalities." The MnDNR noted that the DOC-EERA did not include MnDNR's recommendation in the DSP responding that "the record to-date does not suggest a future need for exemption nor does it support 200 feet as the likely extent of a hypothetical future exemption." The DNR responded in its comments that "while the DNR respects the Department's decision, we maintain that our agency would not support future exemptions to wind access buffers adjacent to DNR administered lands."⁴¹

32. On June 5, 2020, BRW filed its second Site Permit Application Amendment (Second Site Permit Application Amendment) and its second CON Application Amendment (Second CON Application Amendment). In these applications, BRW proposed to modify the Project's wind turbine technology for four safe harbor turbines and make revisions to the Project's turbine layout. BRW indicated that the change of the wind turbine technology for four safe harbor wind turbines was due to the delay in obtaining the results of the Midcontinent Independent System Operator Inc. (MISO)'s interconnection studies, which BRW stated moved the Project's in-service date from 2020 to 2021.⁴² With the Second Site Permit Application Amendment, BRW submitted: a map comparing the initial wind turbine array, the First Site Permit Application Amendment wind turbine array, and the Second Site Permit Application Amendment wind turbine array;⁴³

³⁸ Ex. 325 – Notice of Public Hearing at 1 (March 6, 2020) (eDocket No. [20203-161034-02](#)).

³⁹ *Id.* at 2.

⁴⁰ Ex. 326 – Press Release (March 16, 2020) (eDocket No. [20203-161276-01](#)).

⁴¹ Ex. 704 – Comments (April 9, 2020) (eDocket No. [20204-161940-01](#)).

⁴² Ex. 232 – Second Site Permit Application Amendment at 1-2 (June 5, 2020); Ex. 231 - Second Certificate of Need Application Amendment at 1-2 (June 5, 2020).

⁴³ Ex. 233 – Attachment A to Second Site Permit Application Amendment (June 5, 2020).

revised Project maps;⁴⁴ a revised pre-construction sound analysis;⁴⁵ a revised shadow flicker analysis;⁴⁶ an updated telecommunications study;⁴⁷ and a revised decommissioning plan.⁴⁸

33. On June 10, 2020, the Administrative Law Judge issued a second Revised Scheduling Order (Second Revised Scheduling Order) setting forth a schedule for additional proceedings. The Second Revised Scheduling Order set July 22, 2020, as the date of the public hearing on the BRW's SP Application and indicated that comments would be accepted until August 3, 2020.⁴⁹

34. On June 19, 2020, the Commission issued a Notice of Public Hearing, indicating that the hearing date for the Project would be July 22, 2020. The Notice also indicated that due to the current COVID-19 pandemic, a remote-access public hearing would replace the standard in-person hearing. In addition, the Notice also indicated that a comment period would be open until August 3, 2020, to address topics such as: (1) Is the proposed project needed and in the public interest? (2) What are the costs and benefits of the proposed project? (3) What are the environmental and human impacts of the proposed project and how can these impacts be addressed? (4) Should the Commission issue a certificate of need and a site permit for the project? and (5) Are there other project-related issues or concerns?⁵⁰ Affidavits of publication for the meeting notice were filed by the BRW.⁵¹

35. On June 23, 2020, DOC-EERA filed a revised ER in the CON docket. The revised ER took into account the changes contained in BRW's Second Application Amendment and reviewed the Project and its potential environmental impacts as compared to the Project alternatives identified in the ER Scoping Decision. Like the initial ER, DOC-EERA found that there was no combination of renewable technologies that is likely to be a feasible and available alternative to the Project.⁵² Notice of the availability of the ER was provided in both the CON docket⁵³ and the Environmental Quality Board Monitor.⁵⁴

36. The hearing was held as scheduled on July 22, 2020. The Administrative Law Judge conducted the hearing remotely, by video and telephone, due to the dangers

⁴⁴ Ex. 234 – Attachment B to Second Site Permit Application Amendment 1 of 2 (June 5, 2020); Ex. 235 - Attachment B to Second Site Permit Application Amendment 2 of 2 (June 5, 2020).

⁴⁵ Ex. 236 – Attachment C to Second Site Permit Application Amendment (June 5, 2020).

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ Ex. 237 – Attachment D to Second Site Permit Application Amendment (June 5, 2020).

⁴⁹ Ex. 603 – Revised Scheduling Order (June 10, 2020) (eDocket No. [20206-163878-02](#)).

⁵⁰ Ex. 330 – Notice of Public Hearing (June 19, 2020) (eDocket No. [20206-164138-02](#)).

⁵¹ Affidavits of Publication for Lincoln County (July 15, 2020) (eDocket No. [20207-164933-02](#)); Affidavit of Publication for Pipestone County (July 15, 2020) (eDocket No. [20207-164933-02](#)).

⁵² Ex. 113 – Environmental Report (Text) at 94-95 (June 23, 2020) (eDocket No. [20206-164214-01](#)).

⁵³ Ex. 111 – Notice of Availability of Revised Environmental Report (June 23, 2020) (eDocket No. [20206-164215-01](#)).

⁵⁴ Ex. 112 – Notice of Availability of Revised Environmental Report The EQB Monitor (June 29, 2020) Volume 44, No. 10 (June 29, 2020) (eDocket No. [20207-164475-01](#)).

associated with the COVID-19 virus. At the hearing, Project overviews were provided by the Staff of the Commission, DOC-EERA, and BRW discussing the Project, the regulatory procedure to date, and the remaining process. Exhibits (i.e., documents previously filed throughout the proceeding) were also entered into the record, with no parties objecting. Following the Project overviews and entry of exhibits into the record, DOC-EERA posed several questions to BRW, to which BRW responded, and oral comments were received from the following six individuals: Lucas Franco; Bob Worth; Kris Houg; Will Thomssen; Nathan Buntrock; and Nate O'Reilly. The substance of these oral comments is discussed below.

37. By the August 3, 2020, deadline, written comments were received from: (1) DOC-EERA; (2) MnDNR; (3) The Nature Conservancy (TNC); (4) The International Union of Operating Engineers, Local 49 (Local 49); (5) LIUNA; (6) Roger Johnson; (7) Tara Kroger; and (8) Justin Erdman. The substance of these comments is discussed in detail below.

38. On August 18, 2020, TNC filed additional comments in this proceeding, withdrawing its request that the project be delayed.⁵⁵

39. On August 21, 2020, BRW filed reply comments responding to the comments submitted. These comments are discussed in detail below.

III. CON APPLICATION AND RELATED PROCEDURAL BACKGROUND⁵⁶

40. Given that the Project is over 50 MW, it qualifies as a “large energy facility,” as defined in Minn. Stat. § 216B.2421, subd. 2(1) (2020). Accordingly, pursuant to Minn. R. 7849.0200 (2020) and Minn. Stat. § 216B.243, subd. 4 (2019), BRW is required to obtain a CON to construct and operate the Project.

41. On May 7, 2019, BRW filed a Request for Exemption from Certain Certificate of Need Application Content Requirements with the Commission requesting exemptions from certain CON data requirements.⁵⁷ Exemptions were requested primarily due to BRW being an independent power producer, and having already executed a power purchase agreement with Great River Energy (GRE).

42. On May 16, 2019, the Commission issued a Notice of Comment Period on Certificate of Need Exemption Requests, which opened an initial written comment period until May 28, 2019, and a reply comment period until June 4, 2019.⁵⁸

⁵⁵ TNC Comments (August 18, 2020) (eDocket No. [20208-166057-01](#)).

⁵⁶ In light of the fact that the Site Permit and CON proceedings were administered jointly but the ALJ was not directed to provide a report on the CON, the ALJ provides the procedural history related to the CON proceeding for the Commission's convenience.

⁵⁷ Ex. 200 – Petition For Exemption From Certain Certificate of Need Application Requirements (May 7, 2019) (eDocket No. [20195-152773-01](#)).

⁵⁸ Ex. 300 – Notice of Comment Period (May 16, 2019) (eDocket No. [20195-152961-01](#)).

43. On May 28, 2019, the Staff of the Department of Commerce, Division of Energy Resources (DOC-DER) filed comments recommending that the Commission approve the data exemption requests.⁵⁹

44. On May 20, 2019, LIUNA filed comments indicating it did not object to the BRW's request for exemptions from certain CON requirements provided such an action does not foreclose or prevent full consideration of the Project's socioeconomic impacts.⁶⁰

45. On June 19, 2019, the Commission issued a Notice of Commission Meeting scheduling a meeting for July 1, 2019, to consider whether to grant BRW's data exemption requests.⁶¹ On June 1, 2019, the Commission convened and voted to approve BRW's data exemption requests.

46. On July 3, 2019, the Commission issued an Order Approving BRW's Data Exemption Requests.⁶²

47. On July 12, 2019, BRW filed its CON Application.⁶³

48. On July 24, 2019, the Commission issued a Notice of Comment Period on CON Application Completeness, announcing it would accept written comments through August 13, 2019, and reply comments through August 20, 2019.⁶⁴

49. On August 9, 2019, BRW filed updates to BRW's CON Application filed on July 12, 2019. These updates represented BRW's refinement of its turbine array to optimize the sound levels of the Project following input from EERA.⁶⁵ The specific updates included:

- Changing turbine technology at certain turbine locations;
- Eliminating two turbines (turbines 16 and 20 as filed in the initial Application);
- Revising alternate turbines (turbines 7, 23, and 30 in the initial Application have been made alternates – these turbines now are Alt2, Alt4, and Alt5, respectively); and
- Running certain turbines (turbines 29, Alt2, Alt4, and Alt5) with noise reduction capability.

⁵⁹ Ex. 400 – Comments (May 28, 2019) (eDocket No. [20195-153161-01](#)).

⁶⁰ Ex. 500 – Comments (May 28, 2019) (eDocket No. [20195-153193-01](#)).

⁶¹ Ex. 301 – Notice of Commission Meeting (June 19, 2019) (eDocket No. [20196-153693-01](#)).

⁶² Ex. 303 – Commission Order (July 3, 2019) (eDocket No. [20197-154183-01](#)).

⁶³ Ex. 203 – Application for Certificate of Need (July 12, 2019) (eDocket No. [20197-154346-01](#)).

⁶⁴ Ex. 304 – Notice of Comment Period (July 24, 2019) (eDocket No. [20197-154626-01](#)).

⁶⁵ Ex. 214 – Revised Application for Certificate of Need (August 9, 2019) (eDocket No. [20198-155093-01](#)).

50. On August 12, 2019, the DOC-DER filed written comments recommending that BRW provide the following:

- A discussion of the proposed facility's, and each of its alternatives, variable operating and maintenance costs in current dollars per kilowatt hour;
- A discussion of the facility's, and each of its alternatives, total cost in current dollars per kilowatt hour;
- An estimate of GRE's annual renewable energy credit (REC) requirements for the 2018-2032 planning period, and how the Project would help GRE comply with Minnesota Statutes, section 216B.1691, subp. 2a, which requires utilities in Minnesota to provide 25% of their total retail electric sales from eligible renewable resources by 2025; and
- A general overview of GRE's future renewable resource needs and how the Project helps GRE meet those needs.⁶⁶

51. On August 20, 2019, BRW filed reply comments containing the additional information sought by DOC-DER.⁶⁷

52. On August 22, 2019, LIUNA filed a petition for intervention (contemporaneously filed in the Site Permit docket), indicating that it sought to ensure that wind energy projects are being developed in a manner that advances the interests of local workers and communities, and is consistent with Minnesota's commitment to sustainable development and efficient use of resources.⁶⁸

53. On August 23, 2020, DOC-DER responded to BRW's reply comments, indicating it recommended that the Commission find the CON Application complete.⁶⁹

54. On October 17, 2020, Commission Staff filed briefing papers recommending the Commission: (1) accept the CON Application as substantially complete as of BRW's August 20, 2019, reply comments; (2) direct that the CON Application be reviewed using the informal review process; (3) set specific notice and procedural guidelines; (4) grant rule variances extending application completeness determination and public information meeting and ER scoping timelines; and (5) grant LIUNA's petition to intervene as a party in this docket.⁷⁰

⁶⁶ Ex. 401 – Comments (August 12, 2019) (eDocket No. [20198-155126-01](#)).

⁶⁷ Exs. 220 and 221 – Reply Comments (August 20, 2019) (eDocket Nos. [20198-155327-01](#) and [20198-155327-03](#)).

⁶⁸ Ex. 501 – Petition for Intervention (August 22, 2019) (eDocket No. [20198-155371-03](#)).

⁶⁹ Ex. 402 – Response to Reply Comments (August 23, 2019) (eDocket No. [20198-155401-01](#)).

⁷⁰ Ex. 310 – Staff Briefing Papers (October 17, 2019) (eDocket No. [201910-156691-01](#)).

55. On October 24, 2020, the Commission voted to adopt Commission Staff's recommendations, as outlined in its October 17, 2020, briefing papers.

56. On November 12, 2020, the Commission issued an Order finding the CON Application to be substantially complete, directing the CON Application be reviewed using the informal review process, requiring Project notices, and granting LIUNA's petition for intervention.⁷¹

57. Later, on January 27, 2020, DOC-DER requested a 30-day extension from the date set in the First Scheduling Order to submit comments on the CON Application. DOC-DER indicated it would provide its comments by March 2, 2020.⁷²

58. On March 2, 2020, DOC-DER recommended that the Commission consider the impacts detailed in the ER, and, if the impacts are acceptable, grant the Certificate of Need.⁷³

59. The case procedure relevant to the joint processing of both the CON and SP Applications are provided in Section II.

IV. DESCRIPTION OF THE PROJECT

60. The Project's 108.9 MW will be generated using 36 General Electric (GE) 2.82 MW wind turbines and four GE 2.52 MW wind turbines. As noted below, several turbines will be run under noise reduced operating (NRO) mode, reducing the actual capacity of the Project from the nameplate of 111.6 MW to 108.9 MW. Three alternative turbines will be GE 2.82 MW models and two will be GE 2.52 MW models. The current turbine layout includes 40 primary turbine locations and 5 alternative turbine locations to provide flexibility in the event that development or constructability issues are encountered.⁷⁴ The Project also includes underground collection lines, crane walk paths, access roads, collector substation, meteorological (MET) towers, the operation and maintenance (O&M) facility, and other associated facilities.⁷⁵

61. The Project's wind turbines consist of a foundation, tower, nacelle, hub, and three blades. The turbine towers are comprised of tapered steel cylinders consisting typically of three to four sections joined together via factory fabricated welds, which are automatically controlled and ultrasonically inspected during manufacturing per American National Standards Institute specifications.⁷⁶

62. The Project will use 36 GE 2.82 wind turbines with 127.25-meter (417-foot) rotor diameters (RD) and 89-meter (292-foot) hub height towers and four GE 2.52 wind turbines with 116.5-meter (382-foot) RD and 90-meter (295-foot) hub height towers.⁷⁷

⁷¹ Ex. 313 – Commission Order (November 12, 2019) (eDocket No. [201911-157439-01](#)).

⁷² Ex. 403 – Variance Request (January 27, 2020) (eDocket No. [20201-159644-01](#)).

⁷³ Ex. 404 – Comments (March 2, 2020) (eDocket No. [20203-160876-01](#)).

⁷⁴ Ex. 232 – Second Site Permit Application Amendment at 8-9 (June 5, 2020).

⁷⁵ Ex. 216 – Revised Application for Site Permit at 16 (August 12, 2019).

⁷⁶ *Id.* at 13.

⁷⁷ Ex. 232 – Second Site Permit Application Amendment at 8, 10 (June 5, 2020).

63. The Project is expected to have an operational life of approximately 25 years.⁷⁸

64. An automated Supervisory Control and Data Acquisition system located at the Project substation will provide local and remote supervision and control of turbine equipment and performance.⁷⁹

65. Each turbine will have a step-up transformer to raise the voltage to the 34.5 kilovolt (kV) collection line system. Energy from the turbines will be routed through an underground electrical collection system that will deliver power to the Northern States Power Company (NSP) 115 kV Buffalo Ridge Substation where it will be delivered at 34.5 kV to conductors owned and operated by NSP.⁸⁰

66. BRW proposes to begin construction of the Project in mid-2021. Commercial operation of the Project is anticipated by November of 2021.⁸¹

67. BRW stated that it will partner with contractors who demonstrate a strong safety culture including management commitment and engagement, safe work policies and programs, employee involvement, and historic safe work performance indicators.⁸²

V. SITE LOCATION AND CHARACTERISTICS

68. The estimated size of the Project Area is 17,609 acres (approximately 28 square miles or 73 square kilometers) of mostly agricultural cropland located in Lincoln and Pipestone Counties in southwestern Minnesota, immediately southeast of the City of Lake Benton and southwest of the City of Tyler.⁸³

69. The Project is located in a rural, agricultural area. Permanent land disturbance will be approximately 35.9 acres for turbines and associated facilities.⁸⁴

70. The Project's layout follows Commission guidelines (Minnesota Statutes, section 216F.03, Minnesota Rules, chapter 7854).

VI. WIND RESOURCE CONSIDERATIONS

71. BRW affiliate NextEra Analytics, Inc. (NextEra Analytics) assessed the wind resource for the Project. One MET tower was used in NextEra Analytics' analysis. The data was collected in ten-minute intervals at the Project's location for six years and five

⁷⁸ Ex. 216 – Revised Application for Site Permit at 130 (August 12, 2019).

⁷⁹ *Id.* at 13.

⁸⁰ *Id.* at 130.

⁸¹ Ex. 232 – Second Site Permit Application Amendment at 20 (June 5, 2020).

⁸² Ex. 216 – Revised Application for Site Permit at 75 (August 12, 2019).

⁸³ *Id.* at 5.

⁸⁴ Ex. 232 – Second Site Permit Application Amendment at 18 (June 5, 2020).

months. Based on the measured data, the overall average wind speed based on the turbine locations is 9.12 m/s at hub height.⁸⁵

72. The prevailing frequency and energy direction sectors are south and northwest respectively.⁸⁶

73. BRW expects an annual net capacity factor of approximately 47% to 54% and a projected average annual output of 480,250 MWh.⁸⁷

VII. WIND RIGHTS AND EASEMENT/LEASE AGREEMENTS

74. BRW has substantially completed securing landowner agreements for wind rights and property easements necessary to support the Project. As of the filing of the Second Site Permit Application Amendment, the Project had executed and recorded landowner agreements for 15,736 acres of private land within the Project Area, which is roughly 89% of the land within the overall project boundary. Project facilities have been sited on leased land, and the current leasehold is sufficient to accommodate the proposed 108.9 MW project.⁸⁸

VIII. COMMENTS SUBMITTED IN THE PROCEEDING

75. In deciding whether to grant or deny a Site Permit, the Commission considers any comments that are filed, the record of the public information meeting(s), and the information contained in the Application relevant to the criteria for issuing a Site Permit under Minnesota Rule 7854.0500.

76. Consistent with Minnesota Rule 7854.0900, subp. 4, the Commission directed in its November 12, 2019 Order that a public information meeting be held in a convenient location in the vicinity of the proposed Project and that the meeting must be held more than ten days prior to the end of the public comment period on the DSP.⁸⁹

77. A Public Information and Environmental Report Scoping Meeting was held on December 5, 2019, at 6:00 p.m. at the Lake Benton Community Center, 114 South Center Street, Lake Benton, MN, 56149.⁹⁰ The meeting started with an overview presentation by Commission Staff, followed by a brief overview by BRW of the Project and comments by DOC-EERA.

78. A second Public Hearing was held before an Administrative Law Judge on July 22, 2020. The hearing was conducted remotely, by video and telephone. At the hearing, Project overviews were provided by the Staff of the Commission, DOC-EERA,

⁸⁵ Ex. 216 – Revised Application for Site Permit at 117 (August 12, 2019).

⁸⁶ *Id.* at 123.

⁸⁷ Ex. 232 - Second Site Permit Application Amendment at 20 (June 5, 2020).

⁸⁸ *Id.* at 9.

⁸⁹ Ex. 314 – Commission Order (November 12, 2019) (eDocket No. [201911-157447-01](#)).

⁹⁰ Ex. 315 – Notice of Public Meeting (November 15, 2019) (eDocket No. [201911-157565-02](#)).

and BRW discussing the Project, the regulatory procedure to date, and the remaining process.

A. Oral Comments at the December 5, 2019 Public Information and Environmental Report Scoping Meeting

79. In addition to the Project introductions given by the BRW, the Commission, and DOC-EERA, six speakers offered comments at the December 5, 2019, meeting: Bob Worth; Mike Appel; Will Thomssen; Jim Nichols; Nate O'Reilly; and Dale Johnson.⁹¹

80. Bob Worth, a farmer and the Mayor of the City of Lake Benton, expressed support for the Project, noting in his oral comments that turbine access roads have not inhibited his farming and have been helpful for him as a farmer in getting his commodities out of the fields. He also noted that the Project represents an opportunity for the community to benefit from the businesses and jobs it will provide.⁹²

81. Mike Appel, in his oral comments, posed a question as to why there is a portion of the Project boundary extending into Fountain Prairie. DOC-EERA and BRW clarified that the boundary extension is a wind access buffer used to account for wind turbine setbacks.⁹³

82. Will Thomssen, a union representative for Local 49, expressed full support for the Project, reflecting that the Project will create local job opportunities and generate local tax revenue.⁹⁴

83. Jim Nichols, a long-time farmer in Lake Benton, commented on the benefits of wind energy development to Lincoln County. Mr. Nichols noted that the wind industry provides more than 50 permanent jobs in Lincoln County that provide for good wages and benefits, and he explained that the production taxes associated with wind benefit everyone in the community. Mr. Nichols also detailed how annual payments to landowners provide a benefit, as do road development agreements, which offer the local community financial protection with regard to road repair. Mr. Nichols also noted that wind energy is a crop that can be produced locally, transported instantaneously, and is an incredible deal for the consumers because of the inexpensive cost of power produced by wind. Mr. Nichols also commented on the influence that the Federal Energy Regulatory Commission and MISO have on determining additional transmission line costs, transmission line upgrades, and interconnections.⁹⁵

84. Nate O'Reilly, a representative of the Ironworkers who erect and build wind turbines, spoke in support of the Project. He thanked the BRW for its commitment to hire local workers and encouraged the BRW to continue to do so. Mr. O'Reilly also asked

⁹¹ *Id.*

⁹² Ex. 101 – Oral Comments on Scope of ER at 27-28 (December 18, 2020) (eDocket No. [201912-158427-01](#)).

⁹³ *Id.* at 30-31.

⁹⁴ Ex. 101 – Oral Comments on Scope of ER at 32 (December 18, 2020) (eDocket No. [201912-158427-01](#)).

⁹⁵ *Id.* at 33-35, 41.

when a construction contractor would be hired, to which the BRW relied that it would be approximately two to three months prior to the start of construction.⁹⁶

85. Dale Johnson, in his oral comments, posed a question as to whether there would be transmission lines. BRW explained that there would be no transmission lines for the Project. BRW further stated that a parcel of land was procured for a substation adjacent to the Lake Benton substation and that all of the collector lines feed into the proposed substation.⁹⁷

B. Written Comments Pursuant to November 15, 2019 Notice

86. Pursuant to the Notice of Public Information and Environmental Report Scoping Meeting, issued on November 15, 2019, MnDOT, MnDNR, MASWCD, Carol Overland, Leslie Wigton, and Mike Czech filed written comments.

87. MnDOT, in its comments, recommended the Commission consider the following recommendations for site permit conditions: (1) that the proposed access road for turbine number 11 be from County Road 6 versus US 14, or for the BRW to utilize an existing access road from US 14; and (2) that the following plans be submitted in a timely manner for proper review – (i) a crossing plan for the crane path affecting US 14, (ii) a traffic control plan, and (iii) a detour plan for temporary closures of any trunk highway.⁹⁸

88. MnDNR filed comments addressing bat acoustic survey data, turbine locations, and prairie protection, and attached a Minnesota Natural Heritage Review letter dated April 5, 2019. Regarding bat acoustic survey data, MnDNR noted in its comments that it will provide a final risk determination after reviewing the results of the data.⁹⁹

89. MnDNR also indicated that the assessed risk level will govern its post-construction fatality monitoring recommendations for the Project.¹⁰⁰

90. MnDNR recommended that turbine locations should be reviewed to ensure they comply with the wind access buffer associated with MnDNR administered lands as a non-participating landowner. MnDNR noted that, as depicted on Map 2 of the site permit application, turbines 23, 28, 36, and Alt7 are located near two wildlife management areas (WMAs): Hole-in-Mountain WMA and Coteau Pit WMA. MnDNR noted that these turbine locations should be reviewed to confirm that they meet the 3-by-5 rotor diameter wind access buffer requirement.

91. MnDNR also stated that turbines should be sited an additional 200 feet beyond the existing wind access buffer from MnDNR administered lands to allow for future repowering, which may involve increased rotor diameters and rotor swept zones that could encroach on the wind access buffer near MnDNR administered lands. It further

⁹⁶ *Id.* at 37-38.

⁹⁷ *Id.* at 40.

⁹⁸ Ex. 700 – MnDOT Comments (December 20, 2019) (eDocket No. [201912-158512-01](#)).

⁹⁹ Ex. 701 – MnDNR Comments (December 26, 2019).

¹⁰⁰ *Id.*

noted that MnDNR does not support future exemptions to wind access buffers adjacent to MnDNR administered lands. Additionally, MnDNR noted that, extending the rotor sweep zone closer to habitat associated with DNR administered lands has the potential to increase avian and bat fatalities.¹⁰¹

92. MnDNR also recommended ongoing coordination related to the Prairie Protection Management Plan, documentation of calcareous fen avoidance, and post-construction fatality monitoring. MnDNR also recommended continued coordination to avoid impacts to rare species identified in the Natural Heritage Review letter dated April 5, 2019.¹⁰²

93. MASWCD filed comments indicating its intent to work with the Commission to ensure that local Soil and Water Conservation Districts and landowners will be provided the opportunity to review and comment on proposed Project plans prior to construction.¹⁰³

94. Leslie Wigton's written comments expressed concern that installation of collection lines associated with the Project may damage drainage tiles and interfere with a wildlife habitat situated on his property.¹⁰⁴

95. Mike Czech's comments queried how interference with television signals are tested and questioned how BRW assesses whether there is the potential for interference.¹⁰⁵

96. Carol A. Overland commented that the Project improperly uses a ground factor of 0.5 and that sound reports should not utilize anything other than a 0.0 ground factor. Ms. Overland explains that a ground factor of 0.0 is to be used for wind modeling because the wind source is elevated and ground conditions do not impede the direct path from the greatly elevated source to the receptor. Ms. Overland cites the Freeborn Wind case in support of her contention that wind developers are using an incorrect ground factor because that matter made clear that the state's limit for wind farm noise applies not only to sounds from the wind turbines but also from background noise such as road traffic. Ms. Overland argues that while the Freeborn Wind project used a ground factor of 0.0, subsequent projects are improperly using 0.5 or higher in order to meet the noise standard as clarified by the PUC and the Freeborn Wind report.¹⁰⁶

C. DOC-EERA Comments

97. DOC-EERA filed comments and recommendations on January 24, 2020, taking into account the written and oral comments submitted by the state agency and individual commenters. As to MnDOT's recommended conditions, DOC-EERA expressed its view that the concerns noted in MnDOT's comments are addressed by existing site

¹⁰¹ *Id.*

¹⁰² Ex. 701 – Comments (December 26, 2019) (eDocket No. [201912-158605-01](#)).

¹⁰³ Ex. 102 – Public Comment of MN Assoc. of Soil & Water Conservation Districts (January 13, 2020) (eDocket No. [20201-159059-01](#)).

¹⁰⁴ Ex. 800 – Comments by Leslie Wigton (December 27, 2019) (eDocket No. [201912-158645-01](#)).

¹⁰⁵ Ex. 801 – Comments by Mike Czech (December 27, 2019) (eDocket No. [201912-158644-01](#)).

¹⁰⁶ Carol A. Overland, Comments, December 18, 2019 (eDocket No. [201912-158454-08](#)).

permit language in section 5.3.13 (Public Roads). As to MnDNR's recommendation that turbines be sited an additional 200 feet beyond the wind access buffer from MnDNR administered lands, DOC-EERA indicated that the record did not suggest a future need for exemption of the sort contemplated by MnDNR, nor did the record support 200 feet as the likely extent of a hypothetical future exemption. DOC-EERA therefore did not adopt MnDNR's recommendation into the DSP. DOC-EERA also proposed special conditions to the DSP based on comments received from Leslie Wigton and MASWCD. DOC-EERA also indicated that BRW would submit a proposed decommissioning plan in advance of the hearing.¹⁰⁷

D. DOC-EERA Questions to BRW at July 22, 2020 Hearing

98. At the July 22, 2020, hearing, Larry Hartman, a representative of DOC-EERA, asked several questions of Richard Lampeter of Epsilon Associates, who prepared the sound and shadow flicker analysis for BRW.

99. First, Mr. Hartman asked Mr. Lampeter if all Project turbines will be equipped with low-noise trailing (LNTE) blades and that some but not all of these turbines will operate in NRO mode. Mr. Lampeter confirmed that the Project turbines would use LNTE blades and that ten turbines will run in NRO mode.¹⁰⁸

100. Mr. Hartman followed by asking Mr. Lampeter if he could describe the features of a LNTE blade. Mr. Lampeter testified that an LNTE blade has a "sawtooth" shaped attachment that helps reduce the sound level at the tip of the turbine blade.¹⁰⁹

101. Mr. Hartman also asked Mr. Lampeter to explain the choice to use a ground factor of 0.5 for the purpose of the sound modeling. Mr. Lampeter testified that the ground factor is a ground attenuation factor, which can range between zero and one. Mr. Lampeter explained that "zero" would be for a hard surface, such as pavement or concrete, and "one" would be for porous ground, such as farming land or grass. Mr. Lampeter further testified that a 0.5 ground attenuation factor was selected as a conservative factor and one that is consistent with the factors used for wind projects in the industry. Mr. Lampeter pointed out that there is some variability, but 0.5 is a common choice for assigning ground attenuation. Mr. Lampeter described the general approach to the sound modelling, including the setting of the ground factor, is to result in a conservative but realistic sound model.¹¹⁰

102. Mr. Hartman also asked Mr. Lampeter to explain the application of a 2 dBA uncertainty factor to the sound modelling results. Mr. Lampeter testified that the manufacturer of wind turbines typically assigns an uncertainty factor to turbines, typically around 2 dBA, which can then be added to the sound power level that is produced by the

¹⁰⁷ Ex. 106 – DOC EERA Comments and Recommendations on Preliminary Draft Site Permit at 11-14 (January 24, 2020) (eDocket No. [20201-159562-02](#)).

¹⁰⁸ Buffalo Ridge Wind Hearing Transcript (Hearing Tr.) at 26-27 (July 22, 2020) (eDocket No. [20208-165631-01](#)).

¹⁰⁹ Hearing Tr. at 27-28 (eDocket No. [20208-165631-01](#)).

¹¹⁰ *Id.* at 28-29.

turbines in the model. Mr. Lampeter also explained that GE did not provide an uncertainty factor for the turbines to be used for the Project, so Mr. Lampeter assigned a 2 dBA factor given that it is typical of turbine manufactures in the industry.¹¹¹

103. Mr. Hartman then asked Mr. Lampeter why a ground factor of 0.5 and an uncertainty factor of 2 dBA is reasonable and whether those assumptions generate an output that Mr. Lampeter expects to be confirmed by the post-construction monitoring. Mr. Lampeter testified that these inputs should yield a conservative, yet realistic result. Mr. Lampeter also testified that he is confident that in this case those are the appropriate inputs to the model.¹¹²

104. Mr. Hartman also asked whether BRW had made a choice regarding aircraft detection lighting system (ADLS) lighting for the Project. Ms. Danell Herzig, with BRW, testified that BRW has already selected a provider for an ADLS system and has submitted a package for the ADLS system to the FAA for approval.¹¹³

E. Oral Comments at the July 22, 2020 Hearing

105. Oral comments in support of the Project were provided at the July 22, 2020, hearing by six speakers: Lucas Franco; Bob Worth; Kris Houg; Will Thomssen; Nathan Buntrock; and Nate O'Reilly.

106. Lucas Franco, Research Manager for LIUNA, commented that the COVID-19 pandemic had negatively affected construction workers in the region. Mr. Franco commented that the Project would provide construction workers with a needed employment opportunity. Mr. Franco added that the Project would bring about \$7 to \$9 million in direct spending into the regional economy.¹¹⁴

107. Bob Worth, commenting as a farmer and the Mayor of the City of Lake Benton, noted that the access roads associated with the Project provide useful avenues for farming operations, and mentioned that the Project provides a valuable economic opportunity for a small town like the City of Lake Benton.¹¹⁵

108. Kris Houg, a representative of Local 49, commented that he supports the Project and spoke in favor of the usage of a local construction workforce, which he explained drives growth within the region; whereas, as Mr. Houg explained, the use of a non-local workforce would allow the economic benefits of the Project to migrate from the region.¹¹⁶

¹¹¹ *Id.* at 29-30.

¹¹² *Id.* at 30-31.

¹¹³ *Id.* at 31-32.

¹¹⁴ *Id.* at 33-35.

¹¹⁵ *Id.* at 36-37.

¹¹⁶ *Id.* at 38.

109. Will Thomssen, also a representative of Local 49, expressed support for the Project so long as it utilized a local workforce. Mr. Thomssen also noted the opportunity the Project would provide for young people to gain experience in the trades.¹¹⁷

110. Nathan Buntrock, a landowner in the area for the last 25 years, commented that the Project would serve as an economic benefit to the community and provide tax revenue. Mr. Buntrock also commented that the Project will compliment regional industries, such as corn, soybeans, small grain, and livestock producers in the area. Mr. Buntrock also commented on the potential for the Project to provide long-term jobs and growth in the area.¹¹⁸

111. Nate O'Reilly, business representative with Ironworkers Local 512, commented on the importance of utilizing a local workforce for Project construction. Mr. O'Reilly commented that using Minnesota workers can mean the difference of several million dollars staying in Minnesota local communities versus going out of state. Mr. O'Reilly also explained that the usage of local labor would mean more health care dollars are spent in-state at local hospitals and clinics, and estimated that, for just the Ironworkers, the Project could equal \$650,000 to \$850,000 in just health care dollars spent at the local hospitals and clinics.¹¹⁹

F. Written Comments in Advance of and Following the July 22, 2020 Hearing

112. DOC-EERA submitted comments on August 3, 2020, proposing additional DSP edits and additions.¹²⁰ The specific revisions proposed by DOC-EERA are discussed in more detail below.

113. MnDNR's July 31, 2020, comments noted that it and BRW have continued to coordinate regarding potential impacts. MnDNR noted in its comments that if fen impacts cannot be avoided, a Calcareous Fen Management Plan would be required. MnDNR also notes that an underground collection line is expected to intersect a Minnesota Biological Survey site and that it is MnDNR's understanding that horizontal directional drilling will be used by BRW to avoid impacts. MnDNR also advised that it uses prescribed fires to manage vegetation at the Hole-in-the-Mountain WMA and the Coteau Pit WMA, both of which are located within the Project boundary, and noted the smoke-related effects of such activity.¹²¹

114. MnDNR also noted TNC's comments, and indicated that MnDNR's guidance for commercial wind energy projects recommends considering effects to habitat associated with Important Bird Area's (IBAs) during project development. MnDNR

¹¹⁷ *Id.* at 38-39.

¹¹⁸ *Id.* at 39-41.

¹¹⁹ *Id.* at 42-44.

¹²⁰ Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#)).

¹²¹ Comments of MnDNR (July 31, 2020) (eDocket No. [20207-165490-01](#)).

informed that IBAs are identified by Audubon Minnesota in partnership with MnDNR and are part of an international conservation effort aimed at conserving critical bird habitats.

115. MnDNR also explained that the proposed project overlaps with the Prairie Coteau Complex IBA. This particular IBA consists of six non-contiguous areas that emphasize the remaining prairie and grassland habitat in this agricultural landscape.¹²²

116. TNC indicated that the MnDNR should be engaged in discussions around minimizing impacts to the IBA, although MnDNR does not have regulatory authority over IBAs. MnDNR acknowledged that TNC's recommendation to relocate turbines farther from the Hole-in-the-Mountain Prairie Preserve could benefit wildlife as well as the recreational experiences of visitors to nearby Hole-in-the-Mountain WMA, which is adjacent to MnDNR lands.¹²³

117. Local 49 expressed in its July 6, 2020, comments that its biggest concern was that BRW has not made a commitment to using local labor and paying area wage standards for craftworkers. Local 49 noted that the use of local labor keeps the economic benefits of the community within the region.¹²⁴

118. LIUNA filed comments on July 23, 2020, indicating that the Project will contribute tens of millions of dollars in economic activity to southwestern Minnesota at a time when workers throughout the state desperately need new economic opportunities. LIUNA explained that hundreds of thousands of Minnesotans have applied for unemployment insurance, including 45,996 construction workers statewide, of which 2,798 live in the Southwest Planning Region. LIUNA also noted that the Project will deliver other positive economic benefits, including lease revenues, property taxes, and local spending to Minnesota communities.¹²⁵

119. TNC commented in regard to the potential impact of wind turbine development on the remaining native prairie and prairie obligate species in Lincoln and Pipestone Counties. TNC noted that this area includes its Hole-in-the-Mountain Prairie Preserve, which comprises one of the few intact natural areas on Buffalo Ridge. The Hole-in-the-Mountain Prairie Preserve is located adjacent to and immediately west of the proposed project.

120. TNC stated that because it was not consulted regarding the Hole-in-the-Mountain Prairie Preserve, the hearing comment period was its first opportunity to provide public comments.

121. TNC indicated that the footprint of wind energy can be large and impactful, and that it prefers to see the development of wind energy completed in a way that avoids and minimizes its impact to native ecosystems and their biodiversity. TNC also noted that it encourages tower and infrastructure development on previously disturbed land with

¹²² *Id.*

¹²³ Comments of MnDNR (July 31, 2020) (eDocket No. [20207-165490-01](#)).

¹²⁴ Comments of Local 49 (July 6, 2020) (eDocket No. [20207-164662-01](#)).

¹²⁵ Comments of LIUNA (July 23, 2020) (eDocket No. [20207-165195-02](#)).

buffer allowances that account for indirect impacts of wind turbines on wildlife. TNC also noted that the Project is a significant intensification of development in this part of Buffalo Ridge, involving new towers and turbines much closer to native prairie and TNC's preserve boundary than in the past. Two maps submitted by TNC illustrates the expansion of the project area and proposed turbines into the IBA. Map 1 illustrates that none of the existing turbines and few of the decommissioned turbines were in the IBA. In contrast, nine of the proposed turbines are placed in the IBA. Map 2 illustrates that ten of the proposed turbines are on the edges of undisturbed prairie.¹²⁶

122. TNC also expressed concern over the proximity of the turbines to the Coteau IBA. It noted that the Project will cause grassland fragmentation. TNC also urged the Commission to delay a CON and Site Permit for the Project until the environmental impacts of turbine location are considered, reviewed and addressed.¹²⁷

123. TNC subsequently filed a letter dated August 18, 2020, withdrawing its request that the Commission delay its processing of BRW's applications in order to allow for further evaluation. Specifically, TNC stated in its letter that it "do[es] not intend to pursue further action on this project through the PUC process."

124. Roger Johnson indicated that he had questions: (i) regarding a proposed tower site on his property and whether it was being shifted to a drainage tile field; (ii) regarding the location of an access road leading to the turbine; and (iii) regarding what farming conditions would be like around the turbine.¹²⁸

125. Tara Kroger, who has worked in construction over 20 years, noted that the Project would create good jobs for construction workers and bring new workers to the industry. Ms. Kroger also noted that the utilization of local workers has added benefits in that local workers know and appreciate the land, wildlife, and soils of the region.¹²⁹

126. Justin Erdman noted that wind turbines are a valuable resource but transmit the electricity that they generate outside the region instead of in the community where they are erected. Mr. Erdman also noted the he did not see the Project as having a financial benefit to the local economy, and that the only benefactors are large landowners. Mr. Erdman also noted the noise and shadow flicker that can emanate from the wind turbines. He indicated that any landowner experiencing sound or shadow flicker from the Project turbines should be compensated. Mr. Erdman also notes that the Project and related construction could create hazardous road conditions.¹³⁰

¹²⁶ Comments of The Nature Conservancy (July 28, 2020) (eDocket No. [20207-165432-01](#)); Map 1 – Proposed, Decommissioned and Existing Wind Towers in Relation to Conservation Lands and Prairie Coteau Complex Important Bird Area; Map 2- Proposed Wind Tower Locations in Relations to Mapped Native Prairie.

¹²⁷ Comments of The Nature Conservancy (July 28, 2020) (eDocket No. [20207-165432-01](#)).

¹²⁸ Comments of Linda Johnson (July 27, 2020) (eDocket No. [20207-165340-01](#)).

¹²⁹ Comments of Tara Kroger (August 3, 2020) (eDocket No. [20208-165561-03](#)).

¹³⁰ Comments of Justin Erdman (August 3, 2020) (eDocket No. [20208-165561-01](#)).

G. Responsive Written Comments of BRW

127. In response to the DSP conditions outlined by DOC-EERA in its comments, BRW indicated that it was agreeable to DOC-EERA's proposed condition revisions.¹³¹ The conditions proposed by DOC-EERA are provided in detail in Section XI, below.

128. BRW responded to MnDNR's July 31, 2020, comments by indicating that it had conducted extensive turbine siting analysis for the Project, much of it in consultation with MnDNR, and does not believe that any turbine relocations are warranted.¹³²

129. BRW responded to the MnDNR's concerns about the overlap of the Project with the IBA, stating that the boundary does not indicate actual land use within that area. BRW stated that the IBA area within the Project boundary is over 80% cultivated row crops or other development and that eight of the nine Project turbines that overlap the IBA are located in cultivated row crops, while the ninth turbine is located in non-native grassland along an access road used for the previous Buffalo Ridge wind project. BRW states that the nine turbines, although within the IBA, were sited by BRW with a focus on utilizing disturbed areas to the maximum extent possible in order to minimize environmental impacts. BRW also contended that the IBA designation was intended to protect birds in the rich and diverse grassland bird community found to the west of the Project boundary on TNC lands not directly impacted by the proposed project.¹³³

130. In responding to the July 6, 2020, comments of Local 49, BRW indicated that it had, in fact, made a commitment regarding the use of local labor. Specifically, BRW clarified that "although an engineering, procurement, and constructor contractor has not been selected at this time, BRW commits to use reasonable efforts to employ no less than 60% local labor during construction, with local labor defined as residing within Minnesota."¹³⁴

131. In responding to LIUNA's July 23, 2020, comments, BRW stated that it concurs with LIUNA that the Project will provide substantial benefits to the region and the State of Minnesota as a whole.¹³⁵

132. BRW responded to TNC's July 30, 2020, comments by noting BRW's disagreement with TNC's statement that it had no prior opportunity to provide comments on the Project. BRW replied that, within the docket, it is documented that TNC was provided notification of the Project as early as November of 2019, when it was sent a Project notice (indicating an opportunity to provide comments), as well as the Site Permit and Certificate of Need Applications. BRW also explained that Project notices were published in local newspapers and that TNC would also have received notice of the March 2020 hearing (subsequently cancelled) and the July 2020 hearing.¹³⁶

¹³¹ Comments of BRW (eDocket No. [20208-166108-03](#)) (August 21, 2020).

¹³² *Id.* at 6.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*

133. With regard to infrastructure siting, BRW stated that the Project boundary is located within a highly disturbed and fragmented landscape due to intensive agriculture. With regard to the Prairie Coteau IBA, six turbines of the previously operating Buffalo Ridge wind farm, which were operational from 1996 to 2017, were located in this IBA. BRW argues that wind turbines have previously operated within the IBA in the same general location without incident. The BRW also notes that the proposed Project would only include nine turbines in the IBA, eight of which are located in cultivated row crops. The ninth turbine is located in non-native grassland along an access road used for the previous Buffalo Ridge wind project.¹³⁷

134. With regard to TNC's concerns regarding prescribed fires, BRW and TNC have agreed to jointly develop a Smoke Management Agreement. With regard to TNC's comments regarding the intensification of development, BRW commented that for the prior Buffalo Ridge LWECS, 73 turbines were previously operating within 4.4 miles of the Preserve boundary; but, for the proposed Project, BRW proposes to develop only 40 turbines for the current project within 5.2 miles of the Preserve boundary. With regard to the potential moves of Turbines 22-25, 27, 28, 33, and 37, BRW noted that those turbines are sited within row crops, with the exception of Turbine 22, which is located within non-native grassland proximate to the previous wind turbine access road. BRW also posited that the Shaffer study cited by TNC has limited applicability to the Project. BRW stated that the Shaffer study specifically chose wind farms for inclusion in the study that were "situated within expanses of native grassland," which means for the wind farms studied, cropland comprised only between 0 to 20% of the study area. In contrast, the Project area is comprised of 80% row crops.¹³⁸

135. In responding to Roger Johnson's July 26, 2020, comments BRW indicated it has reached out to Roger Johnson for the purpose of resolving his questions.¹³⁹

136. In response to Tara Kroger's August 3, 2020 comments, BRW indicated that it agrees with Ms. Kroger's comments that the Project will bring valuable job opportunities to the region and agrees that engaging and utilizing local labor is an important aspect of Project construction.¹⁴⁰

137. BRW responded to Justin Erdman's August 3, 2020, comments by indicating that, even though the power generated by the Project may flow from the local area supporting the Project, the local economic benefits of the Project are not dependent on the power flow from the Project. BRW disagrees with Mr. Erdman's assertion that the Project lacks local economic benefits. To this point, BRW indicated that the record demonstrates that the Project will result in: (i) approximately 200 temporary construction job opportunities; (ii) increased local business, provide annual on-going compensation for all participating landowners; (iii) the delivery of nearly 109 megawatts of clean energy; and (iv) ensure significant future economic benefits are generated for the local community

¹³⁷ *Id.* at 9.

¹³⁸ *Id.* at 8.

¹³⁹ *Id.*

¹⁴⁰ *Id.*

(i.e., approximately \$600,000 per year in generation taxes generated). BRW also noted that it is compensating landowners participating in the Project, but BRW does not find it necessary, or realistic, to provide compensation to each and every landowner that experiences some level of sound or shadow flicker. Lastly, BRW explained that road use for the Project will be governed by an agreement, and that it does not expect the Project to create road hazards, either during construction or operation.¹⁴¹

IX. FACTORS FOR ISSUING A SITE PERMIT

138. Wind energy projects are governed by Minnesota Statute, chapter 216F (2020) Minnesota Rules chapter 7854. Minn. Stat. § 216F.01, subd. 2 defines a “large wind energy conversion system” as any combination of wind energy conversion systems with a combined nameplate capacity of five MW or more. Minn. Stat. § 216F.03 requires that a LWECS be sited in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.

139. In addition, when deciding whether to issue a Site Permit for a LWECS, the Commission considers the factors set forth in Minn. Stat. § 216E.03, subd. 7 (2020), which specifies, in relevant part, that the Site Permit determination “shall be guided by, but not limited to,” the following considerations:

- (1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
- (2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
- (3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;
- (4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;

¹⁴¹ *Id.*

- (5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;
- (6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;
- (7) evaluation of alternatives to the BRW's proposed site or route proposed pursuant to subdivisions 1 and 2;
- (8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
- (9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;
- (10) evaluation of the future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;
- (11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and
- (12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.

140. The Commission must also consider whether the BRW has complied with all applicable procedural requirements.

141. The Commission's rules require the BRW to provide information regarding any potential impacts of the proposed Project, potential mitigation measures, and any adverse effects that cannot be avoided as part of the application process.

X. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT

A. Socioeconomic Considerations

142. The Project is located in southwestern Minnesota in an agricultural/rural region within Lincoln and Pipestone Counties. The 2010 census population for Lincoln County was 5,896, while the U.S. Census 2017 American Community Survey population estimate for Lincoln County was 5,724, representing a population decrease of approximately 3.7%. The 2010 census population for Pipestone County was 9,596, while the 2018 census population for Pipestone County was 9,047, representing a population decrease of approximately 5.7%. The county seat of Lincoln County is the City of Ivanhoe,

Minnesota, located approximately 11 miles (17 kilometers) north of the Project Area, and the county seat of Pipestone County is the City of Pipestone, Minnesota, located approximately 12.5 miles (20 kilometers) southwest of the Project Area.¹⁴²

143. As indicated in the record and supported by most of the comments from the local community, the Project will positively impact the region by adding infrastructure, temporary and permanent jobs, increasing the counties' tax base, and providing lease payments to Project participants. The communities near the Project are also expected to receive positive economic benefits as construction will necessitate the need for numerous temporary and full-time positions. Approximately 200 construction and 7 to 12 full-time operations and maintenance jobs are expected as part of the Project. BRW plans to use local contractors and suppliers, where feasible, for portions of construction which will contribute to the overall economy of the region. Purchase of products to construct and operate the facilities such as fuel, equipment, services, and supplies will benefit businesses in the counties as well as the state.¹⁴³

144. Wind energy infrastructure in the Project Area will provide long-term positive economic benefits to local landowners, the state, and the local economy of southwestern Minnesota. Landowners in the Project Area will benefit from annual lease payments and, in accordance with state and county law, BRW will pay applicable property tax and production taxes on the land and energy production to local governments. For example, the Project will pay a Wind Energy Production Tax to the local units of government of \$0.0012 per kWh of electricity produced. This would result in an annual Wind Energy Production Tax of \$500,000 to \$600,000 paid to Lincoln County once the Project is operational.¹⁴⁴

145. The Project is not anticipated to significantly change the demographics of the Project Area or Lincoln and Pipestone Counties.¹⁴⁵ Further, the construction of the Project will not displace residents or change the demographics of the Project Area.

146. The Project's demographic and socioeconomic impacts are expected to be beneficial.

B. Land-Based Economies

147. Land use within the Project Area is primarily cultivated cropland, accounting for approximately 13,462 acres of cultivated land or about 79.7% of the Project Area. An additional 2,255.4 acres or approximately 13.4% of the Project Area is grassland/herbaceous habitat. According to the 2012 USDA Agricultural Census Report, more than 80% of the land in Pipestone County (approximately 290,940 acres) was used for agriculture on approximately 699 farms. Corn, soybeans, and forage crops are the primary crops grown in Pipestone County, while swine and cattle are the predominant livestock raised in the county. Market value of agricultural products sold in the County for

¹⁴² Ex. 216 – Revised Application for Site Permit at 20 (August 12, 2019).

¹⁴³ *Id.* at 82.

¹⁴⁴ *Id.* at 82-83.

¹⁴⁵ *Id.* at 21.

2012 was approximately \$198.6 million, with crop markets at approximately \$135.2 million and livestock markets at approximately \$63.4 million. Approximately 59.1% of the Project Area is classified as prime farmland, while 26.3% is classified as prime farmland, if drained. Additionally, 5.9% of land within the Project Area is not prime farmland and 8.0% is considered farmland of statewide importance.¹⁴⁶

148. The Project is not expected to significantly impact agricultural land use or the general character of the area. While an average 0.75 acres of land per turbine will be taken out of agricultural production for the life of the Project to accommodate the turbine pad, access roads, and ancillary facilities, the landowners may continue to plant crops near, and graze livestock up to, the gravel roadway around each turbine pad. The placement of turbines in agricultural fields is suggested in the U.S. Fish and Wildlife Service (USFWS) Land-Based Wind Energy Guidelines. The primary impact to active agricultural land will be the reduction of crop production on a total of approximately 37 acres of farmland in the Project Area. During construction, agricultural practices may be interrupted in areas that are typically farmed and construction activities may result in the temporary reduction in access to those areas and damage to drain tiles. This economic impact is offset by BRW through lease payments agreed to by the landowner. Large-scale environmental impacts to agriculture or agricultural lands are not anticipated with the placement of turbines, access roads, and ancillary facilities in agricultural fields.¹⁴⁷ Further, the record shows that the presence of the Project will not significantly impact the agricultural land use.

C. Recreation and Tourism

149. Lincoln County and Pipestone County offer tourism and recreational opportunities throughout the year. In 2017, annual leisure and hospitality expenditure in Lincoln County was approximately \$6.2 million, which equated to about 137 tourism-related jobs in the County. Generally, tourism in Lincoln County focuses on promoting the area's cultural history as well as outdoor recreational activities. Lincoln County offers tourism draws such as the Lincoln County Pioneer Museum, the Heritage Center, and the Hole-in-the-Mountain Prairie, while local community events include the Opera House Spring Play and the Steak Fry at the Legion Hall.¹⁴⁸

150. Pipestone County offers tourism and recreational opportunities throughout the year. In 2015, annual leisure and hospitality expenditure in Pipestone County was approximately \$11.7 million, which equated to about 318 tourism-related jobs in the county. Generally, tourism in Pipestone County focuses on promoting the area's cultural history as well as outdoor recreational activities. Pipestone County offers tourism draws such as the Pipestone National Monument, the Pipestone County Museum, historic district walking tours, and Split Rock Creek State Park, while local community events include Pipestone Ghost Walks, the Watertower Festival, and Pipestone Civil War Days.¹⁴⁹

¹⁴⁶ *Id.* at 77.

¹⁴⁷ *Id.* at 77-78.

¹⁴⁸ *Id.* at 80.

¹⁴⁹ *Id.* at 81.

151. There are 46 WMAs, 10 Waterfowl Protection Areas, 1 Scenic and Natural Area, 2 State Aquatic Management Areas, 31 Walk-In Access (WIA) Program parcels, 5 county parks, 1 city park, and 3 snowmobile trails located within 10 miles of the Project Area. Two WMAs, one snowmobile trail, and one WIA occur within the Project boundary. These public resources provide recreational and tourism opportunities including biking, camping, wildlife watching, hunting, fishing and snowmobiling.¹⁵⁰

152. The Project facilities are expected to be located mostly on private lands, and, therefore, relatively few, if any, direct impacts are anticipated on existing recreational facilities and tourism activities. Proposed setbacks from recreational facilities, public roads, and non-leased properties will minimize any indirect impacts. Potential impacts will be mostly visual in nature, as the Project may alter the viewshed from public lands within and around the Project Area. However, turbine structures are already a feature type within the viewshed of the Project Area. Therefore, the Project is not anticipated to have a negative effect on area tourism.¹⁵¹

153. Applicant maintains, and the record suggests, that few or no direct impacts to recreational activities or tourism are anticipated as a result of the Project.¹⁵²

D. Land Use

154. Lincoln County's Comprehensive Plan and Pipestone County's Comprehensive Plan (including the County's Water Plan) serve as a land use planning tool with the intent to guide the direction of community future growth. The plans include an overview of existing county-wide land use, cities, and townships, as well as future land use, demographic analysis, housing trends, economic development, and environmental characteristics.¹⁵³

155. The Project is consistent with Lincoln County's Comprehensive Plan and the Pipestone County's Comprehensive Plan goals to conserve farmland and natural resources, support economic and sustainable development, and provide a positive benefit to its citizens. BRW maintains, and the record suggests, that the proposed Project will be compatible with the rural, agricultural character of Lincoln County.¹⁵⁴

156. To regulate land use, the Lincoln County Zoning Ordinance establishes five separate zoning districts: Flood Plain Management District; Urban Expansion District; Rural Preservation Management District; Shoreland Management District(s); and the Business and Industry District. All five of these districts are present in the Project Area. The Project is primarily located within the Rural Preservation Management District of Lincoln County, and only in the Agriculture District of Pipestone County. No Project Infrastructure is located within Pipestone County. BRW has sited all Project infrastructure

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *Id.*

¹⁵³ *Id.* at 23.

¹⁵⁴ *Id.* at 24.

out of incorporated areas and Urban Expansion Districts to minimize potential impacts on future urban growth. The Project will be compatible with the rural, agricultural character of Lincoln County and Pipestone County and the goals and policies regarding urban growth set forth in Lincoln County's comprehensive plan.¹⁵⁵

157. Two Conservation Reserve Enhancement Program (CREP) easements and one Permanent Wetland Preserves (PWP) Program easement are located in the Project Area. The CREP property within the northern half of Project Area covers a total of 0.14 acres, with an additional 20.7 acres extending outside of the Project Area to the east. No Reinvest in Minnesota properties are present in the Project Area. BRW is continuing to work to obtain information on any Conservation Reserve Program (CRP) easements that may exist within the Project Area. BRW will attempt to avoid and preserve CRP easements to the maximum extent practicable if a landowner is found to have such an easement on their property.¹⁵⁶

158. The locations of the CREP and PWP easements have been incorporated into Project planning so that these locations will be avoided and not disturbed by Project activities. No Project infrastructure or construction easements will be located in CREP or PWP areas. CRP easements will be located in coordination with participating landowners. If CRP easements are determined to be present, the locations will be incorporated into Project planning as it relates to turbine and road layout, and any other associated construction activities and these lands will be avoided to the maximum extent practicable. If the Project requires the placement of permanent infrastructure within CRP land, the BRW has committed to working with the landowner to remove the land from the CRP program and commits to cover the costs of any penalties incurred due to the removal of the easement from the program.¹⁵⁷

E. Noise

159. The Project is subject to sound level requirements in Minn. R. ch. 7030 for Noise Pollution Control. These rules are enforced by MPCA through the use of Noise Area Classifications (NAC) that are defined in subpart 2 of Minn. R. 7030.0050 in terms of land use. The noise standards for each NAC are defined in subpart 2 of Minn. R. 7030.0040 (2019).

160. Sound levels are measured and quantified using the logarithmic decibel (dB) scale. A sound level meter is used to measure sound. It contains "weighting networks" (e.g., A-, C-, Z-weightings) to adjust the frequency response of the instrument. The most commonly used weighting network is A-weighting because it most closely approximates how the human ear responds to sound at various frequencies. The A-weighting network is the accepted scale used for community sound level measurements; therefore, sounds are frequently reported as detected with a sound level meter using this weighting. These sound levels are reported in decibels designated as "dBA".

¹⁵⁵ *Id.* at 25-27.

¹⁵⁶ *Id.* at 27-28.

¹⁵⁷ *Id.* at 28.

161. An ambient sound level survey was conducted to characterize the current acoustical environment in the community surrounding and within the Project Area. Ambient sound levels were measured at five locations for approximately nine days based on a preliminary wind turbine layout.¹⁵⁸

162. The sound impacts associated with the proposed wind turbines were predicted using the Cadna/A sound level calculation software developed by DataKustik GmbH. A total of 411 receptors in proximity to the Project Area were input into the Cadna/A model. These receptors were modeled as discrete points at a height of 1.5 meters above ground level to mimic the ears of a typical standing person.¹⁵⁹ A total of 45 Project-related wind turbines (40 proposed + 5 alternates) of which 6 are proposed to be GE 2.52 MW wind turbines and 39 are proposed to be GE 2.82 wind turbines. Select GE 2.82 MW wind turbines (Turbines 8, 17, 19, 20, 21, 29, 33, 36, 38, and Alt5) are proposed to run under a NRO. All wind turbines are proposed to have LNTE blades that limit noise generation.¹⁶⁰

163. The highest predicted worst-case Project Only L₅₀ sound level at a modeling receptor is 47 dBA. L₅₀ is the sound level exceeded 50 percent of the time. It is the median level observed during the measurement period. The highest modeled Project Only L₅₀ sound level at a non-participant receptor is still 45 dBA. The highest modeled L₅₀ sound level from the Project + existing non-Project (i.e., Ruthton Wind Turbines) + Future Non-Project (i.e., Lake Benton Wind II) scenario was 52 dBA and occurred at one participating location (receptor 44). The second highest modeled L₅₀ sound level from the Project + Ruthton Wind Turbines + Lake Benton Wind II scenario is 48 dBA and occurs at two locations: non-participating receptor 42; and participating receptor 64.¹⁶¹

164. Compliance with MPCA noise standards will be accomplished, in part, by BRW including in its design a 1,400-foot setback from residences. Also, consistent with the 3 rotor distance (3 RD) and 5 rotor distance (5 RD) setback requirement, properties not participating in the Project are to have turbines set back at least 1,251 feet (382 meters) (3 RD) from their property in non-prevailing wind directions and at least 2,085 feet (636 meters) (5 RD) from their property in prevailing wind directions for the GE 2.82 MW turbine model. For the GE 2.52 MW turbine model, properties not participating in the Project are to have turbines set back at least 1,147 feet (349.5 meters) (3 RD) from their property in non-prevailing wind directions and at least 1,911 feet (582.5 meters) (5 RD) from their property in prevailing wind directions.¹⁶²

165. BRW's modeling of existing noise, which was conducted with third party datasets, indicates the one receptor exceeds the MPCA limit of 50 dBA. The Project Only sound level at this receptor is 40 dBA.¹⁶³

¹⁵⁸ *Id.* at 31.

¹⁵⁹ *Id.* at 32-33.

¹⁶⁰ Ex. 232 – Second Site Permit Application Amendment at 12-13 (June 5, 2020).

¹⁶¹ *Id.* at 13-14.

¹⁶² *Id.* at 14.

¹⁶³ Ex. 216 – Revised Application for Site Permit at 33-34 (August 12, 2019).

166. As Mr. Lampeter testified at the July 22, 2020 Public Hearing, to help meet the sound standard, the Project turbines will use LNTE blades, and 10 turbines will run in NRO mode. Also, the sound modelling employed by BRW uses a 0.5 ground factor, which is commonly employed for sound modelling and serves as a conservative, but realistic, sound modelling assumption. Similarly, the usage of a 2 dBA uncertainty factor, as BRW has done in its modelling, is a realistic and reliable assumption to guide the sound modelling. BRW's expectation is that these assumptions will yield accurate results in the post-construction sound modelling.¹⁶⁴ While there was no direct response to Ms. Overland's contentions regarding 0.0 being the appropriate ground factor, it is difficult, outside of a contested case hearing, to test Ms. Overland's hypotheses. Moreover, while wind turbines have been operating in this region for many years, only one resident expressed concern with noise from the Project and the majority of residents supported the Project without raising noise as a concern. Additionally, the DSP requires the project to comply with the noise standards established by the MPCA and turbines will be removed from service if necessary to comply with the noise standards.¹⁶⁵

167. The Project meets the MPCA state noise standards. The Project was designed to minimize the sound levels due to the wind turbines at the homes in the community, while also meeting the other constraints of the project design and regulatory requirements.¹⁶⁶

168. The record demonstrates that BRW has minimized impacts from noise. Further, the DSP contains adequate conditions to monitor and mitigate sound from the Project. Section 4.2 requires that "wind turbine towers shall not be located closer than 1,000 feet from all residences or the distance required to comply with the noise standards pursuant to Minn. R. 7030.0040, established by the MPCA, whichever is greater."¹⁶⁷ Section 4.3 requires turbines to be placed in appropriate locations to ensure compliance with noise standards set forth in Minnesota Rules, chapter 7030. Finally, Section 7.4 of the DSP requires the Permittee to conduct post-construction noise monitoring. The study will determine the noise levels at different frequencies and at various distances from the turbines at various wind directions and speeds.¹⁶⁸

F. Visual Impacts

169. Aesthetic quality and appeal of a region generally derive from the terrain, natural features (e.g., lakes, rivers, ponds, etc.), native flora, and cultural features. Individual observers will have differing opinions on the aesthetic appeal of a region and impacts that may alter the quality. Those likely to be viewing the proposed Project include permanent observers (residents) and temporary observers (motorists, tourists, or recreationalists passing by or using the area intermittently). Residents within and in the vicinity of the Project Area are expected to have a higher sensitivity to the potential

¹⁶⁴ Hearing Tr. at 27-31 (eDocket No. [20208-165631-01](#)).

¹⁶⁵ Ex. 107 – DOC-EERA Preliminary Draft Site Permit (eDocket No. [20201-159562-03](#))

¹⁶⁶ Ex. 216 – Revised Application for Site Permit at 36 (August 12, 2019).

¹⁶⁷ Ex. 107 – DOC-EERA Preliminary Draft Site Permit (eDocket No. [20201-159562-03](#)).

¹⁶⁸ *Id.*

aesthetic impacts than temporary observers as they will look at the Project more frequently than those individuals periodically passing through the area.¹⁶⁹

170. No new transmission lines are proposed for the Project.¹⁷⁰

171. The general topography of the Project Area is described as undulating, rolling relief with approximate elevations between 1,742 and 1,982 feet (531 and 604 meters) above mean sea level. The Project Area generally has higher elevations in the central and northwestern sections, with lower elevations in the northeast, southeast, and southwest. Agricultural fields, farmsteads, grasslands, and rolling topography visually dominate the Project Area. The landscape can generally be classified as rural open space.¹⁷¹

172. There are currently no wind turbines within the Project Area. However, the Lake Benton II Wind Farm and the Ruthton Wind Farm are located within one mile of the Project Area. A total of 2 turbines from Lake Benton II and a total of 24 turbines from Ruthton Wind Farm are located within 1 mile of the Project Area. These existing wind facilities contain turbines of various heights and RD. An additional 8 wind farms are located within 10 miles (16.1 kilometers) of the Project Area.¹⁷²

173. The towers will not be illuminated except as required by the FAA as reflected in Section 5.3.28 of the DSP. The FAA requires obstruction lighting or marking of structures over 200 feet above mean sea level because they have the potential to obstruct air navigation.¹⁷³

174. Visual impacts may also be noticeable to users of public lands and public snowmobile trails within and in the vicinity of the Project Area. However, the Project will not be introducing a new feature type to the landscape because existing wind turbines and other power related infrastructure are prevalent within and in the vicinity of the Project Area.¹⁷⁴

175. A study of the Project's impact regarding shadow flicker was conducted using WindPRO, a sophisticated modeling software program. The study created detailed shadow flicker maps across the entire Project area and at specific locations using shadow receptors. The study used discrete modeling points, including sensitive receptors, such as mobile homes, residential, and industrial areas. The WindPRO modeling was refined by incorporating sunshine probabilities and wind turbine operational estimates by wind direction over the course of a year. A 31-year hourly time series for wind speed and wind direction at 90 meters above ground level was used to calculate the typical annual number of operational hours per wind direction sector. Based on this dataset, the wind turbines

¹⁶⁹ Ex. 216 – Revised Application for Site Permit at 37 (August 12, 2019).

¹⁷⁰ *Id.* at 38.

¹⁷¹ *Id.* at 37.

¹⁷² *Id.* at 37-38.

¹⁷³ *Id.* at 39.

¹⁷⁴ *Id.*

would operate 98% of the year. “Expected,” and less realistic “worst-case” scenarios were also run.¹⁷⁵

176. The predicted expected annual shadow flicker duration for the Project ranged from 0 hours, 0 minutes per year to 42 hours, 11 minutes per year. The maximum modeled expected annual flicker at a non-participating receptor (receptor 154) is 28 hours, 51 minutes. The majority of the receptors (295) were predicted to experience no annual shadow flicker. Sixty-seven locations were predicted to experience some shadow flicker but less than 10 hours per year. The modeling results showed that 40 locations would be expected to have 10 to 30 hours of shadow flicker per year. Nine receptors are expected to have over 30 hours of flicker per year. The modeled worst-case annual shadow flicker duration ranged from 0 hours, 0 minutes per year to 124 hours, 40 minutes per year. The maximum flicker was at a receptor with pending participation. The maximum predicted annual flicker at a participating receptor was 42 hours, 11 minutes.¹⁷⁶

177. The DSP appropriately addresses shadow flicker. Section 7.2 of the DSP requires the BRW to provide the Commission with data on shadow flicker for each residence of non-participating landowners and participating landowners within and outside of the Project boundary potentially subject to turbine shadow flicker exposure. The data will include the modeling results, assumptions made, and the anticipated level of exposure from turbine shadow flicker for each residence. BRW will also be required to provide documentation on its efforts to avoid, minimize, and mitigate shadow flicker exposure.¹⁷⁷

G. Public Services and Infrastructure

178. The Project is located in rural southwestern Minnesota. A network of roads and utilities provide access, electricity, water supply, and telephone service to rural residences, farmsteads, small industry, and unincorporated areas.¹⁷⁸

179. Existing road infrastructure within the Project Area consists primarily of county and township roads that typically follow section lines, as well as farmstead driveways and farming access roads. The primary route through the Project Area is County State Aid Highway (CSAH) 6 that travels north and south, and CSAH 9 and U.S. Highway 14, which travel east and west. Though not in the Project Area, U.S. Highway 75 and State Highway 23 are the main access routes into the Project and to nearby communities. The county roads and township roads used to access the proposed Project access roads and turbine locations are either two-lane paved roads or gravel roads.¹⁷⁹

¹⁷⁵ *Id.* at 40-41.

¹⁷⁶ Ex. 232 – Second Site Permit Application Amendment at 15-16 (June 5, 2020).

¹⁷⁷ Ex. 107 – DOC-EERA Preliminary Draft Site Permit (eDocket No. [20201-159562-03](#)).

¹⁷⁸ Ex. 216 – Revised Application for Site Permit at 44 (August 12, 2019).

¹⁷⁹ *Id.* at 45.

180. Trunk Highway (TH) 75 has the highest average annual daily traffic (AADT) count with 2,400 vehicles per day, while the lowest traffic volume was County Road 117 with 45 vehicles per day. AADT data was not available for several roads within the Project Area; however, with the exception of TH 75, the AADT data ranged from 30 to 1,250 vehicles per day. Therefore, it can be inferred that roads lacking AADT data would likely support similar traffic, or potentially less traffic, per day.¹⁸⁰

181. Construction traffic is expected to generate approximately 500 trips per day during peak construction. Local roads can accommodate this additional traffic as the functional capacity of a two-lane paved rural highway is in excess of 5,000 vehicles per day. However, some minor, short-term traffic delays within and near the Project site may occur during turbine and equipment delivery and construction activities.¹⁸¹

182. MnDOT's recommended that the Commission consider the following site permit conditions: (1) that the proposed access road for turbine number 11 be from County Road 6 versus US 14, or for the BRW to utilize an existing access road from US 14; (2) that the following plans be submitted in a timely manner for proper review – (i) a crossing plan for the crane path affecting US 14 (ii) a traffic control plan; and (iii) a detour plan for temporary closures of any trunk highway.¹⁸² The concerns noted in MnDOT's comments are addressed by DSP language in section 5.3.13 (Public Roads).¹⁸³

183. In particular, Section 5.3.13 of the DSP provides that BRW will identify all state, county, or township roads that will be used for the project. It 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. This Section further requires that prior to the use of such roads, BRW shall make satisfactory arrangements (approved permits, written authorizations, road use agreements, development agreements, etc.) with the appropriate state, county, or township governmental body having jurisdiction over roads to be used for construction of the Project. These arrangements will address, among other issues, maintenance and repair of roads that may be subject to increased impacts due to transportation of equipment and project components.¹⁸⁴

184. Telephone service in the Project Area is provided to farmsteads, rural residences, and businesses by Alltel Corporation and AT&T Mobility Spectrum. One cellular tower was discovered within the Project Area and 11 cellular towers were discovered within 25 kilometers (15.5 miles) of the Project Area.¹⁸⁵

185. No microwave towers were identified in the Project Area. Seven microwave links were identified near the Project Area and four were found to intersect the Project

¹⁸⁰ *Id.*

¹⁸¹ *Id.* at 49-50.

¹⁸² Ex. 700 – Comments (December 20, 2019) (eDocket No. [201912-158512-01](#)).

¹⁸³ Ex. 107 – DOC-EERA Preliminary Draft Site Permit (eDocket No. [20201-159562-03](#)).

¹⁸⁴ *Id.*

¹⁸⁵ Ex. 216 – Revised Application for Site Permit at 46 (August 12, 2019).

Area. The identified microwave links are owned and operated by State of Minnesota, Minnesota Valley Television Improvement Corporation, and Subarctic Media, LLC.¹⁸⁶

186. A Project beam path study was conducted by NextEra Analytics. As part of the study, NextEra Analytics calculated Worst Case Fresnel Zones (WCFZ). The WCFZ for the identified microwave links were calculated, and the appropriate turbine offset was applied by BRW to minimize any harmful impact. The WCFZs are determined by the 2nd Fresnel zone radius obtained at the midpoint of the microwave link. Utilization of the WCFZ and including an offset to account for the turbine blade length has enabled Project turbines to be sited such that impacts to identified microwave beam paths are avoided.¹⁸⁷

187. No active AM or FM radio towers are within the Project Area. One AM tower and one FM tower were identified within 25 kilometers (15.5 miles) of the Project Area. The AM tower has the call sign KLOH and the FM tower has the call sign KARZ.¹⁸⁸

188. There are 17 licensed television towers within 100 kilometers (62.1 miles) of the Project Area, including one that is within 50 kilometers (31.1 miles) of the Project Area and likely to be broadcasting to the region. Most of the television towers within 100 miles (161 kilometers) of the Project Area are low power stations or translator stations that have a limited range and are not anticipated to experience reception degradation. Two full power stations (call signs KDLT-TV and KSMN) have a possibility of experiencing reception degradation if the Project is in line-of-sight. These towers are located 79.9 kilometers (49.6 miles) and 38.9 kilometers (24.2 miles) from the Project.¹⁸⁹ In the unlikely event that TV interference is reported following Project construction, BRW will work with affected residents or businesses to determine the cause of interference and, when necessary, reestablish TV reception and service in a timely manner.¹⁹⁰

189. The Project is not anticipated to impact telephone or internet services. Underground utilities, if any, will be located using a utility locate service, and collection line locations will be coordinated with local telecommunications providers to ensure proper route identification per Minnesota's Gopher State One Call Marking System, and to ensure that there will be no impact to existing telephone lines or other underground utilities. Harmful interference associated with cellular towers is not likely, as cellular transitions or packet switching occurs when a cellular link becomes unavailable.¹⁹¹

190. In addition, Section 5.3.17 of the DSP requires that the Project not interfere with telecommunications and that prior to the pre-construction meeting, BRW submit to the Commission an assessment of television and radio signal reception, microwave signal patterns, and telecommunications in the project area.

¹⁸⁶ *Id.* at 46-47.

¹⁸⁷ *Id.* at 47.

¹⁸⁸ *Id.*

¹⁸⁹ *Id.* at 48.

¹⁹⁰ *Id.* at 53.

¹⁹¹ *Id.* at 50.

191. Public services within the Project Area are provided by the Lincoln County Sheriff, Lincoln County Ambulance, Tyler Ambulance, Holland Fire Department, Ruthton Volunteer Fire Department, and the Lake Wilson Fire Department. A communications center within the Lincoln County Sheriff's Office in the City of Ivanhoe dispatches all 911 calls for the county, including for fire, medical and police emergencies.¹⁹² During operation, BRW commits and the record supports that, the Project will not interfere with emergency services.¹⁹³

H. Public Health and Safety

192. Public health and safety issues associated with the Project are primarily related to turbine operation (including noise and shadow flicker), electromagnetic fields (EMF), stray voltage, and aviation.¹⁹⁴

193. Potential safety and security impacts associated with the construction of the Project include human emergencies and accidents, natural hazards, hazardous materials incidents, and traffic accidents. Potential safety and security impacts associated with the operation of the Project, though rare, include danger of falling ice, unauthorized access to electrical and mechanical components of turbines, and turbine malfunction or collapse. The Project complies with all required setbacks, and each turbine will be regularly inspected and maintained in good repair and condition. In addition to proactive maintenance, modern turbine technology has reduced these potential operational risks to insignificant rates.¹⁹⁵

194. Each turbine can be accessed through a lockable steel door at the base of the tower, through which the nacelle and turbine blades can be accessed. Inside each tower, platforms are accessible via ladder or lift which are equipped with fall arresting safety systems.¹⁹⁶

195. Based upon current research regarding EMFs, and the separation distances being maintained between transformers, turbines, and collector lines from public access and occupied residences, EMFs associated with the Project Area are not expected to have an impact on public health and safety. Electrical equipment will be grounded per American National Standards Institute and National Electrical Safety Code guidelines to ensure safety and reliability.¹⁹⁷

196. Correctly connecting and grounding electrical equipment will prevent potential issues related to "stray voltage." Stray voltage is typically not associated with underground electric collector lines, which connect to the Project substation and are not

¹⁹² *Id.* at 74.

¹⁹³ *Id.*

¹⁹⁴ *Id.* at 68-72.

¹⁹⁵ *Id.* at 74.

¹⁹⁶ *Id.* at 13.

¹⁹⁷ *Id.* at 71.

tapped or diverted for other uses. Therefore, stray voltage is not expected to have an impact on public health and safety.¹⁹⁸

197. There are no registered public airports located within the Project Area. The closest registered airport is the Tyler Municipal Airport located approximately 2.1 miles (3.4 kilometers) away from the northeastern extent of the Project Area. No active aviation towers within the Project Area have been identified. Aviation towers provide radio communications related to air traffic. Four aviation towers are located within 15.5 miles of the Project Area.¹⁹⁹ FAA Determinations of No Hazard will be obtained for any tower location prior to installation and any location will have appropriate lighting and marking as required by the FAA.²⁰⁰ During the proceeding, BRW modified the wind turbine technology and layout within the original 17,609-acre Project Area to address a FAA, DoD, and USAF concern that the originally proposed wind turbine array may impact a CARSR.²⁰¹

198. Several requirements of the DSP will mitigate any impacts to public health and safety. For instance, Section 5.3.26 of the DSP requires that BRW provide educational materials to landowners adjacent to the site and, upon request, to interested persons about the Project and any restrictions or dangers associated with the Project. BRW will provide any necessary safety measures such as warning signs and gates for traffic control or to restrict public access. BRW will also submit the location of all underground facilities, as defined in Minn. Stat. § 216D.01, subd. 11 (2020), to Gopher State One Call following the completion of construction at the site.²⁰²

199. Section 10.10 of the DSP also BRW to prepare an Emergency Response Plan in consultation with the emergency responders having jurisdiction over the facility prior to Project construction. A copy of the plan, along with any comments from emergency responders, will be filed with the Commission at least 14 days prior to the pre-construction meeting and a revised plan, if any, at least 14 days prior to the pre-operation meeting. BRW will as provide as a compliance filing confirmation that the Emergency Response Plan was provided to the emergency responders and Public Safety Answering Points (PSAP) with jurisdiction over the facility prior to commencement of construction. Finally, BRW will register the facility address or other location indicators acceptable to the emergency responders and PSAP having jurisdiction over the facility.²⁰³

200. The record demonstrates that BRW has taken steps to minimize and mitigate impacts to public safety and aviation. In light of these mitigation measures and the requirements of the DSP, it is not anticipated, and the record supports, that the construction and operation of the Project will have a significant impact on public health and safety or aviation.

¹⁹⁸ *Id.*

¹⁹⁹ *Id.* at 72.

²⁰⁰ *Id.* at 18.

²⁰¹ Ex. 226 – Site Permit Application Amendment at 1 (February 21, 2020).

²⁰² Ex. 107 – DOC-EERA Preliminary Draft Site Permit (eDocket No. [20201-159562-03](#)).

²⁰³ *Id.*

I. Hazardous Materials

201. Potentially hazardous materials associated with the Project Area would likely include petroleum products (diesel fuel, gasoline, propane, heating oil, lubricants, and maintenance chemicals), pesticides, and herbicides used in prior or ongoing agriculture related activities. Contaminants associated with asbestos and lead-based paint may be present due to the age of many of the farmsteads within the Project Area. Polychlorinated biphenyls associated with pad-mounted and pole-mounted transformers may also be present.²⁰⁴

202. Prior to construction, the BRW will conduct an ASTM International–conforming Phase I Environmental Site Assessment to identify and avoid existing recognized environmental conditions (RECs) within the Project Area, particularly associated with facilities identified by the MPCA database. Information from the Phase I Environmental Site Assessment will be used to identify and avoid, if necessary, any identified RECs. If RECs cannot be avoided, appropriate remediation, if required, will be conducted to avoid potential concerns associated with RECs. Any wastes generated during any phase of the Project will be handled and disposed of in accordance with Minnesota Rule Chapter 7045, local rules and regulations, and the site specific Spill Prevention, Control, and Countermeasure Plan.²⁰⁵

203. Further, Section 5.3.23 of the DSP requires that all waste and scrap that is the product of construction shall be removed from the site and all premises on which construction activities were conducted and properly disposed of upon completion of each task. In addition, Section 5.3.24 of the DSP requires BRW to take all appropriate precautions against pollution of the environment and makes BRW responsible for compliance with all laws applicable to the generation, storage, transportation clean up, and disposal of all wastes generated during construction and restoration of the site.²⁰⁶

204. The record demonstrates that BRW has taken steps to avoid and minimize potential impacts. Further, the DSP contains adequate conditions to monitor and mitigate potential impacts from solid and hazardous wastes.

J. Soils and Topography

205. The Project Area is largely comprised of five soil complexes: Barnes-Buse complexes; Kranzburg-Brookings complexes; Singaas-Oak Lake complexes; Parnell consociations; and Lakepark consociations. These soils are generally composed of silt loam to clay loam soils that are moderately dark in color and occur on level to steep slopes. These soils are generally deep, poorly drained to well drained, and are formed from loess, glacial till, and lacustrine deposits on glacial till.²⁰⁷

²⁰⁴ Ex. 216 – Revised Application for Site Permit at 76 (August 12, 2019).

²⁰⁵ *Id.* at 76-77.

²⁰⁶ Ex. 107 – DOC-EERA Preliminary Draft Site Permit (eDocket No. [20201-159562-03](#)).

²⁰⁷ *Id.* at 84.

206. The concrete turbine foundations will require up to approximately 2,400 cubic yards of excavation depending on soil requirements and turbine size. It is anticipated that the freestanding tubular wind turbine towers will be erected on reinforced concrete spread footing foundations. The bearing surface of the foundation will be at a depth up to approximately 12 feet (approximately 4 meters), with a total width of up to approximately 68 feet (approximately 21 meters). The tubular steel tower will be connected to the concrete foundation through a base plate and high strength anchor bolts embedded in the concrete foundation. Approximately 35 tons of steel will be required in the rebar design of the foundation for structural support.²⁰⁸

207. The underground electrical collector and communication systems will connect each turbine to the proposed substation. Approximately 28 miles of underground collection line will be installed.²⁰⁹ A Storm Water Pollution Prevention Plan (SWPPP) and National Pollutant Discharge Elimination System (NPDES) permit will be obtained prior to construction. BRW will employ BMPs to ensure that excavated material is contained, exposed soil is protected, restored material is stabilized and disturbed areas are re-vegetated with non-invasive species. Significant adverse Project-related impacts to wetlands are not anticipated because of design considerations and the implementation of stormwater BMPs. Compensatory mitigation may be required if certain state or federal impact thresholds are surpassed. Currently, compensatory mitigation is not anticipated for the development of the Project.²¹⁰

208. The general topography of the Project Area is described as undulating, rolling relief with approximate elevations between 1,742 and 1,982 feet (531 and 604 meters) above mean sea level. The Project Area generally has higher elevations in the central and northwestern sections with lower elevations in the northeast, southeast, and southwest.²¹¹

209. Some limited, localized impacts to the topography within the Project Area will come from the construction of turbine pad sites, access roads, and associated Project facilities. Anticipated impacts, however, will be minor in nature as construction of these features will not require significant excavation or fill for foundations or road bases.²¹²

K. Groundwater Resources

210. Groundwater resources are not abundant or widely distributed within this portion of the state because of lower precipitation rates and the quaternary and bedrock geology present in this region. The limited groundwater resources in this region have prompted the establishment of an extensive network of water pipelines which transport groundwater from a few select areas with productive groundwater wells to the majority of the region.²¹³

²⁰⁸ *Id.* at 127.

²⁰⁹ Ex. 232 – Second Site Permit Application Amendment at 12 (June 5, 2020).

²¹⁰ Ex. 216 – Revised Application for Site Permit at 93 (August 12, 2019).

²¹¹ *Id.* at 37, 83.

²¹² *Id.* at 83.

²¹³ *Id.* at 85.

211. Major impacts to groundwater resources and wells are not expected from Project related activities due to BRW's abundance of water-related setbacks and the minimal water-related needs of the Project. A well will be installed to fulfill the O&M building water requirements.²¹⁴

L. Surface Water and Floodplain Resources

212. Buffalo Ridge (a glacial moraine) divides the Project Area into two primary drainage basins:

(1) The southwestern portion of the Project Area generally drains south and west. This area is located within the Lower Big Sioux River Watershed, which is part of the Big Sioux River Watershed, which is part of the Missouri River Basin.

(2) The central and northeastern portions of the Project Area generally drain north and east. This area is located within the Redwood River Watershed, which is part of the Minnesota River Watershed, which is part of the Mississippi River Basin.²¹⁵

The Project Area contains approximately 24.7 acres of National Hydrography Dataset waters.²¹⁶

213. The MnDNR Commissioner may formally designate lakes for wildlife management under the authority of Minn. Stat. § 97A.101, subd. 2(a) (2020), after notice and a hearing. There are no MnDNR designated wildlife lakes within the Project Area. There are also no identified outstanding resource value waters or trout streams within the Project Area.²¹⁷

214. Surface waters will remain largely unimpacted because the Project will be designed to avoid or minimize adverse impacts to surface waters. Permanent dewatering will not occur, though the possibility exists that temporary dewatering of turbine foundations and collection lines will occur as needed. Temporary or permanent impacts to surface water runoff may be associated with crane paths, access roads, turbine pads, subsurface electrical collector lines, the substation, and the O&M facility.²¹⁸

215. Significant adverse Project-related impacts to surface waters or floodplains are not anticipated because of design considerations and the implementation of stormwater BMPs.²¹⁹

²¹⁴ *Id.* at 86.

²¹⁵ *Id.*

²¹⁶ *Id.* at 87.

²¹⁷ *Id.* at 88.

²¹⁸ *Id.*

²¹⁹ *Id.* at 90.

M. Wetlands

216. The Project Area contains both isolated wetlands and wetlands associated with watercourses scattered across the Project Area. The Project Area is dominated by freshwater emergent wetlands with some mapped emergent, shrub/scrub, and forested wetlands. According to the MnDNR update to the USFWS National Wetland Inventory (NWI) database, the Project Area contains approximately 848.2 acres of mapped NWI wetlands and open waterbodies (4.9% of the Project Area).²²⁰

217. BMPs will be employed by BRW to ensure that excavated material is contained, exposed soil is protected, restored material is stabilized, and disturbed areas are re-vegetated with non-invasive species. Significant adverse Project-related impacts to wetlands are not anticipated because of design considerations and the implementation of stormwater BMPs.²²¹

218. Further, Section 4.6 of the DSP requires that wind turbines and associated facilities not be placed in public waters wetlands, except that electric collector or feeder lines may cross or be placed in public waters or wetlands subject to applicable permits and approvals. Further, wetland and water resources disturbed by construction will be restored to pre-construction conditions, in accordance with applicable permits and landowner agreements.²²²

N. Vegetation

219. The Project Area contains approximately 13,462 acres of cultivated land or about 79.7% of the Project Area. In addition to cultivated lands, agricultural regions typically also include idle lands, pastures and grasslands. The Project Area contains approximately 213.3 acres of pastures, or approximately 1.3% of the Project Area, and approximately 2,255.4 acres of grassland/herbaceous habitat, or approximately 13.4% of the Project Area. The remaining land cover type within the Project Area consists primarily of developed/disturbed space.²²³

220. Four native plant communities are located within the Project Area, two of which are ranked as imperiled, Dry Hill Prairie and Mesic Prairie.²²⁴

221. MnDNR has mapped 39 native prairies within the Project Area. The Dry Hill Prairie (Southern) prairie type makes up the majority of the native prairie areas at approximately 223.1 acres (90.3 hectares) within the project area. Two prairies are classified as Basswood - Bur Oak - (Green Ash) Forest, accounting for approximately 24.8 acres (10 hectares) of the Project Area. The MnDNR describes this prairie type as forest dominated by basswood, bur oak, or green ash, with northern red oak abundant, with shrub layer, occurring on well drained clay soils formed in bedrock sediments, with

²²⁰ *Id.* at 91.

²²¹ *Id.* at 93.

²²² Ex. 107 – DOC-EERA Preliminary Draft Site Permit (eDocket No. [20201-159562-03](#)).

²²³ Ex. 216 – Revised Application for Site Permit at 94 (August 12, 2019); Figure 10, Land Cover Map.

²²⁴ *Id.* at 95.

a hummocky landscape. Two prairies are classified as Mesic Prairie (Southern), and are characterized as grass dominated, forb rich, and occurring on somewhat poorly drained to well-drained loamy soils. This prairie type accounts for approximately 4.4 acres (1.8 hectares) of the Project Area. One prairie is classified as Seepage Meadow/Carr, Tussock Sedge Subtype, accounting for approximately 1.9 acres (0.8 hectares) of the Project Area. The MNDNR describes this prairie type as meadow dominated, with sedge species diversity, and groundwater seepage present.²²⁵

222. Approximately 0.2% of the total Project Area will be permanently converted to sites for wind turbines or other Project infrastructure.²²⁶ Vegetation will be removed during construction and installation of Project infrastructure to allow for construction of turbine pads, access roads, substation, and O&M facilities. BRW will design the site to place the majority of Project infrastructure in agricultural fields.²²⁷

223. BRW commits in its Site Permit Application to avoid Sites of Biodiversity Significance that are ranked as high or outstanding.²²⁸ BRW also states that should Project infrastructure be planned in areas ranked moderate or below, BRW will coordinate with MnDNR regarding potential impacts to these areas. BRW further commits to avoid Mapped Native Plant Communities to the extent practical, and where Project infrastructure is planned in these areas, field verification as to whether these areas exhibit native plant communities has occurred and will continue as project details are developed. BRW states that, though the project has been designed to avoid impacts to Native Plant Communities, should infrastructure be planned in areas mapped as Native Plant Communities, it will be coordinated with MnDNR. If the location of Project infrastructure shifts within the Project Area, BRW will attempt to avoid impacts to Native Plant Communities and will coordinate with MNDNR as appropriate.²²⁹ BRW estimates no permanent impacts to Native Plant Communities.²³⁰

224. Further, Section 4.7 of the DSP provides that Project facilities will not be placed in native prairie unless addressed in a Prairie Protection and Management Plan, and shall not be located in areas enrolled in the Native Prairie Bank Program. This section further requires BRW to prepare a Prairie Protection and Management Plan in consultation with MnDNR if native prairie is identified within the site boundaries. The plan will address steps that will be 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 BRW, MnDNR, and the Commission.²³¹

225. Additionally, BRW has agreed to avoid impacts to conservation land such as WMAs and will ensure that turbine locations are not placed less than five rotor

²²⁵ *Id.* at 96.

²²⁶ Ex. 232 – Second Site Permit Application Amendment at 18 (June 5, 2020).

²²⁷ Ex. 216 – Revised Application for Site Permit at 97 (August 12, 2019).

²²⁸ *Id.* at 96.

²²⁹ *Id.* at 97.

²³⁰ *Id.*; Table 8.18.2.

²³¹ Ex. 216 – Revised Application for Site Permit at 93 (August 12, 2019).

diameters on the prevailing wind directions and three rotor diameters on the non-prevailing wind directions from the perimeter of the WMAs as required by Section 4.1 of the DSP.²³²

226. TNC noted in its comments that the Project represents a significant intensification of development, involving new towers and turbines that are closer to native prairie and TNC's Preserve boundary than in the past.²³³ BRW responds that no Project infrastructure is planned in native prairie and only one turbine is planned in non-native grassland that is currently used for pasture. All other turbines are sited in cultivated row crop fields. Also, as previously noted, a Prairie Protection and Management Plan will be developed by BRW in coordination with MnDNR to determine best management practices for protecting grasslands during construction.²³⁴

227. TNC also noted in its comments that locations proposed for turbines 22-25, 27, 28, 33, and 37 would have harmful impacts on native prairie, on conservation lands, and on wildlife, especially grassland birds that utilize that habitat.²³⁵ Addressing TNC's concerns regarding native prairie, but not the project's potential negative impact on grassland birds, BRW responded that all the identified turbines are sited within row crops, with the exception of Turbine 22, which is located within non-native grassland proximate to the previous wind turbine access road.²³⁶

228. The record demonstrates that BRW utilized previously disturbed areas for turbine siting, thereby minimizing further habitat fragmentation for native prairie habitat and the wildlife.²³⁷ TNC in its August 18, 2020, submission withdrew its previous comments that the Commission delay its processing of BRW's applications in order to allow for further evaluation. Specifically, TNC stated in its letter that it "do[es] not intend to pursue further action on this project through the PUC process."

229. The record demonstrates that BRW has committed to taking steps to avoid and minimize impacts to vegetation. While the DSP conditions to monitor and mitigate the Project's potential impacts on vegetation are minimal, the record indicates that almost all of the land being used for the project was previously disturbed agricultural land and none is native prairie.

O. Wildlife

230. Large electric generation projects have the potential to impact various types of wildlife. Habitats in a project's environmental setting provide forage and shelter for various mammals, reptiles, amphibians, birds and insects, both resident and migratory.²³⁸

²³² *Id.* at 98.

²³³ Comments of The Nature Conservancy (July 28, 2020) (eDocket No. [20207-165432-01](#)).

²³⁴ Comments of BRW (August 21, 2020).

²³⁵ Comments of The Nature Conservancy (July 28, 2020) (eDocket No. [20207-165432-01](#)).

²³⁶ *Id.*

²³⁷ Comments of BRW (August 21, 2020).

²³⁸ Ex. 232 – Second Site Permit Application Amendment at 38 (June 5, 2020).

231. Approximately 19.6 percent of the project area is within one of the six segments of the Prairie Coteau Important Bird Areas.²³⁹ In addition, the range of the project is greatly expanded from the earlier Buffalo Ridge wind project. Moreover, as TNC indicates and its maps illustrate, 9 turbines are scattered throughout an IBA. This area previously held only 5 turbines which were clustered close together.²⁴⁰

232. In its current project proposal, BRW sited the turbines in cultivated fields and designed the infrastructure to avoid or minimize impacts on the native plant communities, grasslands, wetlands and streams. BRW contends it has designed the project to avoid or minimize impacts on avian species of concerns.²⁴¹

233. A modified Tier 1 and Tier 2 site assessment was completed for the Project Area during preparation of the comprehensive Wildlife Conservation Strategy (WCS) and it serves Minnesota's requirement for an Avian and Bat Protection Plan (ABPP). Information for documenting responses to the Tier 1 and Tier 2 questions in the WCS/ABPP was gathered through MnDNR and USFWS database research, and other publicly available resources. Tier 1 questions help to determine potential environmental risk at the landscape scale, while Tier 2 questions help to determine potential environmental risk at the project scale. Specific Tier 2 site visits were not conducted, and BRW relied on observations during the Tier 3 studies and one site visit to evaluate the presence or absence of native grasslands.²⁴²

234. Aerial surveys were conducted from a helicopter to identify raptor and eagle stick nests within and near the Project Area. Three successive years of aerial raptors nest surveys were collected during 2017-2019 within and near the Project Area. For the 2017 aerial raptor nest survey effort, raptor nests were surveyed within one mile (1.6 kilometers), and eagle nests within 10 miles of the Project Area. A total of 25 raptor nests were recorded during 2017 aerial surveys, and no bald eagle nests were located within the Project Area. Two occupied, active bald eagle nests were located 1.5 and 8.0 miles outside the Project Area and within the surveyed 10-mile buffer. Other nests observed during the aerial survey included four occupied, active red-tailed hawk (*Buteo jamaicensis*) nests, two occupied, active great horned owl (*Bubo virginianus*) nests, and 17 unoccupied, inactive nests of unknown raptor species. No unoccupied, inactive nests were consistent in size and shape with an eagle nest.²⁴³

235. For the 2018 aerial raptor nest survey effort, raptor nests were surveyed within one mile (1.6 kilometers), and eagle nests within five miles (8.0 kilometers) of the Project Area. A total of 31 raptor nests were recorded, of which one occupied, active bald eagle nest was located 1.5 miles (2.4 kilometers) from the 2019 proposed Project Area, north of Lake Benton. Other raptor nests observed during aerial surveys included 4 occupied, active red-tailed hawk nests, 1 occupied, active great horned owl nest, and

²³⁹ Revised Environmental Report at 39 (June 23, 2020) (eDocket No. [20206-164214-01](#)).

²⁴⁰ TNC Comments July 28, 2020 (eDocket No. [20207-165432-01](#)).

²⁴¹ Revised Environmental Report at 39 (June 23, 2020) (eDocket No. [20206-164214-01](#)).

²⁴² Ex. 216 – Revised Application for Site Permit at 99 (August 12, 2019).

²⁴³ *Id.* at 102.

24 unoccupied, inactive nests of unknown raptor species. No unoccupied, inactive nests were consistent in size and shape with an eagle nest.²⁴⁴

236. For the 2019 aerial raptor nest survey effort, raptor nests were surveyed within one mile, and eagle nests within five miles, of the Project Area. One occupied, active bald eagle nest was documented 1.5 miles north from the Project Area across Lake Benton, with the eagle nest at the same location as in the 2017 and 2018 surveys. No bald eagle nests, or large nests consistent in size and shape for an eagle, were identified within the proposed Project Area.²⁴⁵

237. Other wildlife likely to utilize the Project Area include white-tailed deer, raccoon, coyote, red and gray fox, Virginia opossum, gray squirrel, fox squirrel, thirteen-lined ground squirrel, striped skunk, short-tailed weasel, and badger.²⁴⁶

238. The USFWS provides distribution lists of federally listed threatened, endangered, and candidate species on a county-by-county basis. The USFWS county list indicates that Lincoln and Pipestone Counties are within the range (i.e., has documented records, harbors critical habitat, and/or has the potential to harbor critical habitat for the designated species) of certain federally listed threatened species. Specifically, the northern long-eared bat, the western prairie fringed orchid (*Platanthera praeclara*), and two butterflies, the Poweshiek's skipperling and the Dakota skipper. The area also potentially is home to the federally listed endangered Topeka shiner, a fish. In the state of Minnesota, the western prairie fringed orchid and the Dakota skipper are designated by the state as endangered.²⁴⁷

239. No MnDNR Waterfowl Feeding and Resting Areas are located within or adjacent to the Project Area.²⁴⁸

240. Field and desktop studies indicate that wildlife usage in the Project Area is comparable to that documented at other wind energy conversion systems sited in agricultural areas of the Midwest. Impacts to wildlife and wildlife habitat are expected to be minimal because grasslands, wooded areas, shrublands, and other areas identified as important to wildlife will be avoided whenever possible. Additionally, these important wildlife features occur in relatively small amounts within the Project Area. Impacts to wildlife would primarily occur to avian and bat populations. There is a likelihood that bird and bat fatalities will occur at the Project, but these fatalities are unlikely to affect populations of most species, including species of a conservation concern. Direct impacts to birds and bats, because of Project construction and operation, are not expected to differ markedly from those reported by other previous studies in agricultural settings within Minnesota.²⁴⁹

²⁴⁴ *Id.*

²⁴⁵ *Id.*

²⁴⁶ *Id.*

²⁴⁷ *Id.* at 105.

²⁴⁸ *Id.* at 112.

²⁴⁹ *Id.* at 112-13.

241. Further, the DSP provides protection of wildlife resources, specifically avian and bat protection. Section 7.5.1 of the DSP requires BRW to utilize a qualified third party to conduct two full years of avian and bat fatality monitoring following the commencement of commercial operation. Monitoring activities and results will be coordinated directly with MnDNR, USFWS, and the Commission. Detailed monitoring protocols, agency coordination, and any avoidance and minimization measures shall be detailed in the project's ABPP as required by the DSP.²⁵⁰

242. Section 7.5 of the DSP also includes requirements to maintain an updated ABPP in coordination with MnDNR, USFWS, and the Commission, and submit quarterly and immediate incident reports. The ABPP includes standards for minimizing impacts to avian and bat species during construction and operation of wind energy projects. It has been developed in a manner that is consistent with the guidelines and recommendations of the USFWS Wind Energy Guidelines.²⁵¹

243. Any large energy project will have some negative impact on flora and wildlife, including insects, birds, and bats. As TNC's comments illustrate, it can be difficult to balance the, sometimes harmonious and sometimes conflicting, goals of developing renewable energy and preserving natural ecosystems. The record demonstrates that BRW has taken steps to minimize and mitigate impacts to wildlife. It is not anticipated that the construction and operation of the Project will have a significant impact on wildlife given these steps and the requirements of the DSP.

P. Rare and Unique Natural Resources

244. Large electric generation facilities have the potential to negatively impact rare and unique natural resources. The majority of the rare and unique natural features identified during MnDNR's NHIS data review for the project area is butterflies and vascular plants. These are primarily concentrated in the western edge of the project area in association with existing state-owned WMA properties, TNC's Hole-In-The Mountain Prairie, and grassland dominated areas.²⁵²

245. The USFWS provides distribution lists of federally listed threatened, endangered, and candidate species on a county-by-county basis. The USFWS county list indicates that Lincoln and Pipestone Counties are within the range (i.e., has documented records, harbors critical habitat, or has the potential to harbor critical habitat for the designated species) of the federally listed threatened northern long-eared bat, western prairie fringed orchid (*Platanthera praeclara*), Poweshiek's skipperling, and Dakota skipper, and the federally listed endangered Topeka shiner. In the state of Minnesota, the

²⁵⁰ Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#));
Comments of DOC-EERA with DSP Modifications (Sept. 4, 2020) (eDocket No. [20209-166418-01](#)).

²⁵¹ Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#));
Comments of DOC-EERA with DSP Modifications (Sept. 4, 2020) (eDocket No. [20209-166418-01](#)).

²⁵² Ex. 113 – Environmental Report (Text) at 51-53 (June 23, 2020) (eDocket No. [20206-164214-01](#)).

western prairie fringed orchid and the Dakota skipper are designated by the state as endangered.²⁵³

246. Results from the MnDNR NHIS database review for the Project Area indicated 129 element occurrence records (EOR) of 27 different types of rare plants or animals within 1 mile of the Project Area. Seventy-four percent of EORs were outside the specified 2.5-mile Project boundary. The mapped occurrences include 11 records of 9 vertebrate species, with only 2 species, Blanding's turtle and Richardson's ground squirrel, within the Project Area. Among invertebrates, there are 49 records from among 8 invertebrate species, with 69% of EORs outside the Project Area. Among the 10 plant species, there are 40 EORs, with 78% outside the Project Area. The NHIS maintains that it is not an exhaustive inventory, and thus does not represent all occurrences of rare features within the state. In addition, ecologically significant features for which the NHIS has no records may exist within the Project Area.²⁵⁴ MnDNR has mapped rare and unique native plant communities as part of its NHIS database. These native plant communities have the potential to provide habitat for rare species of flora and fauna.²⁵⁵

247. The impetus for the listing of the northern long-eared bat by USFWS was primarily due to the threat posed by the white-nose syndrome (WNS), a fungal disease that has affected several bat populations. The decision to list the bat as threatened with a 4(d) rule provides protection to address conservation needs of this bat species. For areas in the United States where WNS affects bat populations, the conservation measures provided in the 4(d) rule exempt "take" (defined under the ESA as harming, harassing, or killing of protected species) as a result from certain activities. The USFWS consider all Minnesota counties to be a part of the WNS zone as of June 30, 2017, and thus the Project Area is within the WNS zone. The 4(d) rule applies to the Project Area, but would only affect the project in terms of tree clearing restrictions if a roost tree was confirmed within the Project. The closest known northern long-eared bat roost tree to the Project Area is approximately 140 miles to the northeast in Carver and Scott Counties.²⁵⁶

248. The current layout attempts to minimize impacts to avian species and their habitats by concentrating activity in agricultural lands. By siting the turbines in cultivated fields and designing the associated infrastructure to avoid or minimize impacts on the native plant communities, grasslands, wetlands, and streams, BRW has designed the Project facilities to avoid and minimize impacts on avian grassland species of concern, including direct (mortality) and indirect (displacement, habitat loss, and fragmentation) impacts.²⁵⁷

249. The majority of identified rare and unique natural features flagged during the MnDNR's NHIS data review for the Project Area are of grassland-associated invertebrates (butterflies) and vascular plants concentrated in the eastern edge of the Project Area in association with existing state-owned WMA properties, and TNC's Hole-

²⁵³ Ex. 216 – Revised Application for Site Permit at 105 (August 12, 2019).

²⁵⁴ *Id.* at 108.

²⁵⁵ *Id.* at 111.

²⁵⁶ *Id.* at 105-06.

²⁵⁷ *Id.* at 113.

In-The-Mountain Prairie, and grassland dominated areas. Proactive avoidance of native grassland habitat and public lands within the Project Area has been suggested by the MnDNR to the greatest extent practicable. Furthermore, limiting impacts to native grassland and wetland areas during the construction and siting process will reduce the potential impacts for these rare and unique natural features.²⁵⁸

250. MnDNR noted in its July 31, 2020, comments that TNC had recommended relocating turbines to avoid harmful impacts to native prairie, conservation lands, and wildlife within the IBAs and TNC's Hole-in-the-Mountain Prairie Preserve. MnDNR acknowledged that TNC's recommendation to relocate turbines farther from the Hole-in-the-Mountain Prairie Preserve could benefit wildlife as well as the recreational experiences of visitors to nearby Hole-in-the-Mountain WMA.²⁵⁹ The overlap of the IBA with the Project boundary, however, does not indicate actual land use within that area; in fact, the IBA area within the Project boundary is over 80% cultivated row crops or other development. Also, eight of the nine Project turbines that overlap the IBA are located in cultivated row crops, while the ninth turbine is located in non-native grassland along an access road used for the previous Buffalo Ridge wind project. These nine turbines, even though technically within the IBA, were sited with a focus on utilizing disturbed areas to the maximum extent possible in order to minimize environmental impacts. The IBA designation was intended to protect birds in the rich and diverse grassland bird community found to the west of the Project boundary on TNC lands.²⁶⁰

251. While noting that some of its concerns still stand, TNC withdrew its request that the Commission delay the certificate of need and site permit for the project. TNC acknowledged the difficulty of and numerous constraints involved in relocating turbines and towers at this stage of the process. TNC has been in discussions with BRW, is committed to working collaboratively with BRW, and is focusing on the compatibility of the mutual operations, especially regarding prescribed fire on its lands essential to maintaining native prairie. TNC stated that it does not intend to pursue further action on the project through the PUC process.²⁶¹

252. Sections 4.6, 4.7, 7.1, and 7.5 of the DSP, as modified, identify conditions to monitor and mitigate the Project's potential impacts on rare and unique natural resources including wildlife.²⁶²

Q. Cultural and Archaeological Resources

253. The majority of the Project Area is located in the Prairie Lakes archaeological sub-region, with a small portion of the northeast corner occurring within the Southwest Riverine archaeological sub-region. The Prairie Lakes Archaeological Region covers most of southwestern and south central Minnesota and includes a small

²⁵⁸ *Id.* at 114.

²⁵⁹ Comments of MnDNR (July 31, 2020) (eDocket No. [20207-165490-01](#)).

²⁶⁰ Comments of BRW (August 21, 2020).

²⁶¹ Comments of TNC (Aug. 18, 2020) (eDocket No. [20208-166057-01](#)).

²⁶² Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#));
Comments of DOC-EERA with DSP Modifications (Sept. 4, 2020) (eDocket No. [20209-166418-01](#)).

portion of northeast Pipestone County. Archaeological resources are predominantly concentrated along Lake Benton and its associated drainages in this area; specifically, resources would be expected near water sources on terraces, bluffs, and hilltops. However, archaeological resources have been documented in all kinds of landforms within the region.²⁶³

254. In February 2019, BRW met with the State Historic Preservation Office (SHPO) and Minnesota Office of the State Archaeologist (OSA) to gather cultural resources records related to the Project Area. A Phase Ia cultural resources literature review (literature review) was conducted for the Project Area as well as one mile surrounding the Project Area. The literature review did not identify historic properties listed on the National Register of Historic Places (NRHP), Minnesota State Historic Sites Network, or the Minnesota State Register of Historic Places located within the Project Area.²⁶⁴

255. The literature review identified 2 NRHP listed architectural resources, 18 other architectural resources, 12 archeological sites, and 6 site leads documented within the area evaluated. The two NRHP architectural inventory resources are the Ernest Osbeck House and the Lake Benton Opera House and Kimball Building, both of which are located outside of the Project Area in the City of Lake Benton, Minnesota. The Ernest Osbeck House is listed on the NRHP under Criteria B and C and is significant for its association with Ernest Osbeck, grocery merchant and commercial and social developer, and as one of the most prominent residential structures in the City of Lake Benton. The Lake Benton Opera House and Kimball Building are listed on the NRHP under Criterion A and are significant as well-preserved structures that played a central role in the cultural and commercial development in the community of Lake Benton.²⁶⁵

256. Two architectural resources are located within the northwest corner of the Project Area. The resources are highway segments, and the inventory forms do not provide date of construction or the NRHP eligibility evaluation. One other architectural resource within the Project Area was identified as a historic precast concrete box bridge and exists within Hope Township. The remainder of the other architectural resources are outside of the Project Area but are located within a mile of the Project Area. A large portion of these are located in the City of Lake Benton. Further, these resources have not been evaluated for the NRHP.²⁶⁶

257. The literature review identified four previously recorded archaeological sites and one site lead within the Project Area. The four sites are isolated finds of single pieces of lithic debitage. The site lead is considered an undetermined site type. There are ten previously documented archaeological sites and five archaeological site leads within one mile of the Project Area. The eight sites include seven prehistoric period archaeological sites and one historic period archaeological site. Three of these sites have not been

²⁶³ Ex. 216 – Revised Application for Site Permit at 54 (August 12, 2019).

²⁶⁴ *Id.* at 54.

²⁶⁵ *Id.* at 54-55.

²⁶⁶ *Id.* at 55.

formally evaluated for the NRHP, three sites have been deemed eligible for the NRHP, and two sites have been investigated and recommended as not eligible for the NRHP. The five archaeological site leads include four undetermined sites and one prehistoric mound group site. All five site leads have not been formally evaluated for the NRHP.²⁶⁷

258. Prior to initiating archaeological surveys, BRW conducted micrositeing to identify suitable locations for facility components. BRW invited several Native American tribes in the area to participate in micrositeing and subsequent archaeological surveys and various tribes participated including Spirit Lake Tribe, Yankton Sioux Tribe, Upper Sioux Community, Rosebud Sioux Tribe, and Lower Sioux Indian Community. BRW will coordinate with the participating tribes to ensure that any tribal concerns are addressed. Coordination with tribes is expected throughout the duration of the Project.²⁶⁸

259. BRW will attempt to avoid impacts to previously recorded archaeological resources that are considered significant and to any discovered significant archaeological, architectural, or Native American sensitive resources during all phases of the Project. If significant archaeological resources are identified, the integrity and significance of the resource(s) will be assessed in terms of the potential for NRHP eligibility. If the identified resource(s) are determined to be significant and cannot be avoided by the Project, further investigation and mitigation of the resource may be needed and will be coordinated with the tribes, SHPO, and OSA. While avoidance of archaeological resources would be the preferred option, mitigation of impacts to NRHP-eligible archaeological resources may be necessary. The results of this investigation or mitigation will be described and documented on a case-by-case basis by compilation into a report, or reports, and shared with the tribes, SHPO, and OSA. BRW will develop and implement an Unanticipated Discoveries Plan to be followed if cultural resources or human remains are inadvertently discovered to ensure that the appropriate authorities (SHPO and OSA, as applicable) are involved quickly and in accordance with local and state regulations.²⁶⁹

260. The DSP also adequately addresses archeological and historical resources. Section 5.3.16 of the DSP requires BRW to make every effort to avoid impacts to identified archaeological and historic resources. If a resource is encountered, BRW is required to contact and consult with SHPO and OSA. Where feasible, avoidance of the resource is required. Where not feasible, mitigation must include an effort to minimize Project impacts consistent with SHPO and the State Archaeologist's requirements. In addition, before construction, workers will be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties are found. If human remains are found during construction, BRW is required by the DSP to immediately halt construction at such location and promptly notify local law enforcement and the State Archaeologist. Construction at such location shall not proceed until authorized by local law enforcement or the State Archaeologist.

²⁶⁷ *Id.* at 56.

²⁶⁸ *Id.* at 58.

²⁶⁹ *Id.* at 59.

261. With these avoidance and mitigation measures in place and requirements of the DSP, impacts on cultural and archeological resources are expected to be minimal.

XI. SITE PERMIT CONDITIONS

A. February 26, 2020 DSP Conditions

262. The DSP issued on February 26, 2020, includes a number of proposed permit conditions, some of which have been discussed above. Many of these conditions were established as part of the site permit proceedings or other wind turbine projects permitted by the Commission. The record reflects that comments received by the Commission have been considered in development of the DSP for this Project.

263. DOC-EERA proposed special conditions to the DSP based on comments received from Leslie Wigton and MASWCD.²⁷⁰ In the DSP, those two proposed conditions read as follows:

6.1 Leslie Wigton Property

The Permittee shall work with Mr. Leslie Wigton of Lake Benton, MN to locate and/or relocate the proposed underground collection cables in such a manner that shall: 1) avoid the potential for interference on the existing drain tiles or proposed modifications or additions to future drain tiles that Mr. Wigton can provide prior to construction; and 2) avoid harm or damage to lands and grasses established and maintained for wildlife. The Permittee shall file documentation describing how harm or damage to existing or proposed drain tiles and lands and grasses established for wildlife will be avoided or describe any agreement reached by the Permittee and Mr. Wigton. This documentation shall be filed at least two weeks prior to the pre-construction meeting (Section 10.1).

6.2 Soil and Water Conservation District (SWCD) and Landowner Review of Plans

The Permittee shall provide the local SWCD and participating landowners with the opportunity to review and comment on detailed access road plans, and all other infrastructure plans and designs in order to minimize the potential to pond and divert water creating gully erosion or the potential to cause damage or failure to existing conservation practices, such as terrace(s), sediment control basin(s) or diversion(s) prior to finalization and installation. The Permittee shall file documentation verifying compliance at least two weeks prior to the pre-construction meeting.

²⁷⁰ Ex. 106 – DOC EERA Comments and Recommendations on Preliminary Draft Site Permit at 11-14 (January 24, 2020) (eDocket No. [20201-159562-02](#)).

264. On August 21, 2020, BRW indicated in its comments that it is agreeable to proposed special conditions 6.1 and 6.2.²⁷¹

B. August 3, 2020 DOC-EERA Recommended Conditions

265. On August 3, 2020, DOC-EERA made updates and modifications to the DSP, and included additional recommended Site Permit Conditions.²⁷²

266. With regard to ADLS, DOC-EERA recommended adoption of the additional language underlined below for Condition 5.3.28:²⁷³

5.3.28 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.

The Permittee shall install and employ an FAA-approved lighting mitigation system. Such a system shall use aircraft detection (aircraft detection lighting system, ADLS), dimming (light intensity dimming solution, LIDS) or other FAA-approved mitigation method. The Permittee shall describe the lighting mitigation system used for the project in its site plan.

267. On August 21, 2020, BRW indicated in its comments that it was agreeable to this additional language proposed for Site Permit Condition 5.3.28.²⁷⁴

268. With regard to the “Other Permits and Regulations” compliance filing included in the DSP, DOC-EERA recommended adoption of the additional language underlined below for condition 5.6.2:²⁷⁵

5.6.2 Other Permits and Regulations

The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the project and comply with the conditions of those permits unless those permits conflict with or are preempted by federal or state permits and regulations. At least 14 days prior to the preconstruction meeting, the Permittee shall submit a filing with a detailed status update of all permits, authorizations, and approvals that have been applied for specific to the project. The detailed status update shall include the permitting agency or authority, the name of the permit,

²⁷¹ Comments of BRW (August 21, 2020).

²⁷² Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#)).

²⁷³ *Id.*

²⁷⁴ Comments of BRW (August 21, 2020).

²⁷⁵ Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#)).

authorization, or approval being sought, contact person and contact information for the permitting agency or authority, brief description of why the permit, authorization, or approval is needed, application submittal date, and the date the permit, authorization, or approval was issued or is anticipated to be issued.

The Permittee shall demonstrate that it has obtained all necessary permits, authorizations, and approvals by filing an affidavit stating as such, prior to commencing project construction.

The Permittee shall provide a copy of any such permits, authorizations, and approvals upon Commission request. 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.

A list of the permits known to be required is included in the permit application. The Permittee shall submit a copy of such permits to the Commission upon request.

269. On August 21, 2020, BRW indicated in its comments that it was agreeable to this additional language proposed for Site Permit Condition 5.6.2.²⁷⁶

270. DOC-EERA also proposed new language for the “Operational Phase Fatality Monitoring” and “Avian and Bat Protection Plan” conditions, which under DOC-EERA’s modified DSP, read as follows:²⁷⁷

7.6 Operational Phase Fatality Monitoring

The Permittee shall utilize a qualified third party to conduct a minimum of two full years of avian and bat fatality monitoring following the commencement of the operational phase of the project. Monitoring activities and results will be coordinated directly with MN DNR, USFWS, and the Commission. Detailed monitoring protocols, agency coordination, and any avoidance and minimization measures will be detailed in the project’s ABPP.

7.9 Avian and Bat Protection Plan

The Permittee shall comply with the provisions of the most recently filed and accepted version of the Avian and Bat Protection Plan (ABPP). The initial version of the ABPP submitted for this project as part of the Month, Day, Year Site Permit Application, and all necessary revisions that occur during the permit issuance process will be incorporated into a Permit Version. The Permit Version of the ABPP will be filed with the Commission 14 days before

²⁷⁶ Comments of BRW (August 21, 2020).

²⁷⁷ Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#)).

the preconstruction meeting, and revision will include any updates associated with the final construction plans and site plans.

The ABPP must 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 ABPP shall also include formal and incidental post-construction fatality monitoring, training, wildlife handling, documentation (e.g., photographs), and reporting protocols for each phase of the project.

The Permittee shall, by the 15th of March following each complete or partial calendar year of operation, file with the Commission an annual report detailing findings of its annual audit of ABPP practices. The annual report shall include summarized and raw data of bird and bat fatalities and injuries and shall include bird and bat fatality estimates for the project using agreed upon estimators from the prior calendar year. The annual report shall also identify any deficiencies or recommended changes in the operation of the project or in the ABPP to reduce avian and bat fatalities and shall provide a schedule for implementing the corrective or modified actions. The Permittee shall provide a copy of the report to the Department of Commerce – Energy Environmental Review and Analysis, Minnesota Department of Natural Resources and to the U.S. Fish and Wildlife Service (FWS) at the time of filing with the Commission.

271. On August 21, 2020, BRW indicated in its comments that it was agreeable to this additional language proposed for these two conditions.²⁷⁸

272. With regard to the “Immediate Incident Reports” condition included in the DSP, DOC-EERA recommended adoption of modified language, struck through or underlined below, for Condition 7.12:²⁷⁹

7.12 Immediate Incident Reports

The Permittee shall notify the Commission, Department of Commerce Energy Environmental Review and Analysis staff (DOC EERA), the FWS, and the DNR within 24 hours of the discovery of any of the following:

(a) five or more dead or injured birds or bats, at an individual turbine location, within a five-day reporting period;

(b) Twenty or more dead or injured birds or bats, across the entire site, within a five-day reporting period;

²⁷⁸ Comments of BRW (August 21, 2020).

²⁷⁹ Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#)).

(c) one or more dead or injured state threatened, endangered, or species of special concern; federally listed species, including species proposed for listing; or

(d) one or more dead or federally listed species, including species proposed for listing; or one or more dead or injured bald or golden eagle(s).

(e) one or more dead or injured bald or golden eagle(s).

273. On August 21, 2020, BRW indicated in its comments that it was agreeable to these modifications to Site Permit Condition 7.12.²⁸⁰

274. DOC-EERA also proposed a replacement decommissioning condition for Condition 11.1, which read as follows:²⁸¹

11.1 Decommissioning Plan

The Permittee shall comply with the provisions of the most recently filed and accepted Decommissioning Plan. The initial version of the Decommissioning Plan was submitted for this project as part of the July 17 and August 9, Site Permit Applications. The Permittee shall file an updated decommissioning plan, incorporating comments and information from the permit issuance process and any updates associated with the final construction plans, with the Commission 14 days before the preconstruction meeting. The decommissioning plan shall be updated every five years following the commercial operation date.

The plan shall provide information identifying all surety and financial securities established for decommissioning and site restoration of the project in accordance with the requirements of Minn. R. 7854.0500, subp. 13. The decommissioning plan shall provide an itemized breakdown of costs of decommissioning all project components, which shall include labor and equipment. The plan shall identify cost estimates for the removal of turbines, turbine foundations, underground collection cables, access roads, crane pads, substations, and other project components. The plan may also include anticipated costs for the replacement of turbines or repowering the project by upgrading equipment.

The Permittee shall also submit the decommissioning plan to the local unit of government having direct zoning authority over the area in which the project is located. 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

²⁸⁰ Comments of BRW (August 21, 2020).

²⁸¹ Comments of DOC-EERA (August 3, 2020) (eDocket No. [20208-165565-01](#)).

Commission may at any time request the Permittee to file a report with the Commission describing how the Permittee is fulfilling this obligation.

275. On August 21, 2020, BRW indicated in its comments that it was agreeable to these modifications to Site Permit Condition 11.1.²⁸²

276. Based upon the record and agreement of DOC-EERA and BRW, the proposed changes to the DSP are reasonable.

277. Based on the foregoing Findings of Fact and the record in this proceeding, the Administrative Law Judge respectfully recommends that the Commission adopt of the following:

CONCLUSIONS OF LAW

1. Any of the foregoing Findings of Fact more properly designated as Conclusions of Law are hereby adopted as such.

2. The Commission has jurisdiction over the Application pursuant to Minn. Stat. § 216F.04.

3. The BRW, EERA, and the Commission have complied with all applicable procedural requirements for obtaining an amended Site Permit under chapter 216F of the Minnesota Statutes and chapter 7854 of the Minnesota Rules, including publishing the application notice in a newspaper of general circulation in Pipestone County; mailing the notice and application to the county board, each city council, and each township board in Pipestone County, where the Project is to be located; and holding a public informational meeting and comment period. Minn. R. 7854.0500; Minn. R. 7854.0900.

4. The Draft Site Permit, as modified by DOC-EERA through September 4, 2020, contains a number of important mitigation measures and other reasonable conditions.

5. The Site Permit for the Project should be conditioned in a number of respects, including those mitigation measures and other reasonable conditions included in the Draft Site Permit as modified by DOC-EERA through September 4, 2020

6. The Project, with the Draft Site Permit conditions revised as set forth above, satisfies the site permit criteria for an LWECs under Minnesota Statutes §§ 216F.03 and 216E.03, subd. 7, and meets all other applicable legal requirements.

7. The Project, with the permit conditions discussed above and included in the Draft Site Permit, does not present a potential for significant adverse environmental effects as those terms are used in the Minnesota Environmental Rights Act and the Minnesota Environmental Policy Act.

²⁸² Comments of BRW (August 21, 2020).

8. The Administrative Law Judge was authorized to hold the July 22, 2020, hearing remotely due to the COVID-19 pandemic, with such authority having been assured through Executive Order No. 20-58 (2020). The Order authorized the Commission to hold in-person meetings, hearings, or other gatherings by telephone and other electronic means in accordance with Minnesota Statutes 2019, section 13D.021.

9. Any of the foregoing Conclusions of Law which are more properly designated Findings of Fact are hereby adopted as such.

Based on the Findings of Fact and Conclusions of Law contained herein and the entire record of this proceeding, the ALJ hereby makes the following recommendation:

RECOMMENDATION

Issuance of a Site Permit to Buffalo Ridge Wind, LLC to construct and operate the up to 108.9 MW Buffalo Ridge Wind Project in Lincoln and Pipestone Counties, and that the issued Site Permit contain the conditions as set forth in the foregoing Findings of Fact and Conclusions of Law.

Dated: October 1, 2020



BARBARA J. CASE
Administrative Law Judge

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**SITE PERMIT FOR A
LARGE WIND ENERGY CONVERSION SYSTEM**

**IN
LINCOLN AND PIPESTONE COUNTIES**

**ISSUED TO
BUFFALO RIDGE WIND, LLC**

PUC DOCKET NO. IP-7006/WS-19-394

In accordance with the requirements of Minnesota Statutes Chapter 216F and Minnesota Rules Chapter 7854 this site permit is hereby issued to:

BUFFALO RIDGE WIND, LLC

The Permittee is authorized by this site permit to construct and operate a Large Wind Energy Conversion System of up to 108.7 megawatts (MW) consisting of up to 40 turbines. The Large Wind Energy Conversion System and associated facilities shall be built within the site identified in this permit and as portrayed on the site maps and in compliance with the conditions specified in this permit.

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

Approved and adopted this 5th day of January, 2021

BY ORDER OF THE COMMISSION



Will Seuffert,
Executive Secretary

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ATTACHMENTS

Attachment 1 – Complaint Handling Procedures for Permitted Energy Facilities

Attachment 2 – Compliance Filing Procedure for Permitted Energy Facilities

Attachment 3 – Site Map

1 SITE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this site permit to Buffalo Ridge Wind, LLC (Permittee) pursuant to Minnesota Statutes Chapter 216F and Minnesota Rules Chapter 7854. This permit authorizes the Permittee to construct and operate the Buffalo Ridge Wind Project, an up to 108.7 megawatt (MW) nameplate capacity Large Wind Energy Conversion System (LWECS) and associated facilities in Lincoln and Pipestone County, Minnesota. The LWECS and associated facilities shall be built within the site identified in this permit and as identified in the attached site maps, hereby incorporated into this document.

1.1 Preemption

Pursuant to Minn. Stat. § 216F.07, this permit shall be the sole site approval required for the location, construction, and operation 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.

2 PROJECT DESCRIPTION

The project is comprised of a total of 45 wind turbines sites (40 proposed wind turbines sites, plus five alternate sites) for a capacity of 108.7 MW. A maximum of 40 turbines are proposed for construction. As proposed, the project will use 36 GE 2.82 MW wind turbine generators (WTGs) and four GE 2.52 MW WTGs. Five alternate sites are included to provide flexibility in the event constructability issues are encountered.

The turbines at hub height will be 292 feet (89 meters). The rotor diameter for the turbines is 417 feet (127.2 meters). The project collector substation will connect to the existing Buffalo Ridge Substation via a 115 kV transmission jumper (less than 1,500 feet in length) that will cross existing transmission lines owned by Northern States Power Company. The Project will also include installation of one permanent meteorological (MET) tower. All of the turbines will utilize low-noise trailing edge (LNTE) serrations on the turbine blades to reduce sound impacts. LNTE serrations will be the same color as the turbine blades and cover approximately 20-30 percent of the trailing edge of the outboard blade length.

2.1 Associated Facilities

Associated facilities include the following: underground collection and feeder lines (approximately 30 miles of 34.5 kV collector lines), temporary access roadways up to 45 feet in width for crane movement and equipment delivery, permanent all-weather gravel access roads

16 feet in width (approximately 20 miles,) one MET tower, temporary staging/laydown construction area (15 acres), turbine construction area for each turbine (approximately five acres), an operation and maintenance (O&M) facility (two acres), and an aircraft detection lighting system.

2.2 Project Location

The project is located in southern Lincoln County and northern Pipestone County between the cities of Lake Benton on the west and Tyler on the east. The project is bounded by Highway 14 on the north, Highway 23 on the east, and Highway 75 on the west. The project is located in the following:

County	Township Name	Township	Range	Sections
Lincoln	Lake Benton	109	45	10, 11, 13-16, 20-23, 26-29, 32-36
Lincoln	Hope	109	44	31
Pipestone	Fountain Prairie	108	45	3

3 DESIGNATED SITE

The site designated by the Commission for the Buffalo Ridge Wind Project is the site depicted on the site maps attached to this permit. The project area encompasses approximately 17,610 acres. Upon completion, the project will occupy no more than 60 acres of land converted to wind turbines and associated facilities approved by this permit. Within the project boundary, the LWECs and associated facilities shall be located on lands for which the Permittee has obtained wind rights.

3.1 Turbine Layout

The preliminary wind turbine and associated facility layouts are shown on the site maps attached to this permit. The preliminary layout represents the approximate location of wind turbines and associated facilities within the project boundary and identifies a layout that seeks to minimize the overall potential human and environmental impacts of the project, 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 make minor adjustments to the preliminary layout to accommodate requests by landowners, local government units, federal and state agency requirements, and unforeseen conditions encountered during the detailed engineering and design process. Any modification to the location of a wind turbine and associated facility depicted in the preliminary layout shall be done in such a manner to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 10.3.

4 SETBACKS AND SITE LAYOUT RESTRICTIONS

4.1 Wind Access Buffer

Wind turbine towers shall not be placed less than five rotor diameters on the prevailing wind directions and three rotor diameters 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 1,000 feet from all residences or the distance required to comply with the noise standards pursuant to Minn. R. 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, at all times, comply with noise standards established by the MPCA as of the date of this permit 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 closer than 250 feet from the edge of the nearest public road right-of-way.

4.5 Public Lands

Wind turbines and associated facilities including foundations, access roads, underground cable, and transformers, shall not be located in publicly-owned lands that have been designated for recreational or conservation purposes, including, but not limited to, Waterfowl Production Areas, State Wildlife Management Areas, Scientific and Natural Areas or county parks, except in the event that the public entity owning those lands enters into a land lease and easement with the Permittee. Wind turbine 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 shown on the public water inventory maps prescribed by Minnesota Statutes Chapter 103G, 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), and local units of government as implementers of the Minnesota Wetlands Conservation Act.

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 Minn. Stat. § 84.02, subd. 5, unless addressed in a prairie protection and management plan and shall not be located in areas enrolled in the Native Prairie Bank Program. Construction activities, as defined in Minn. Stat. § 216E.01, shall not impact native prairie unless addressed in a Prairie Protection and Management Plan.

The Permittee shall prepare a Prairie Protection and Management Plan in consultation with the DNR if native prairie, as defined in Minn. Stat. § 84.02, subd. 5, is identified within the site boundaries. The Permittee shall file the plan 30 days prior to submitting the site plan required by Section 10.3 of this permit. The plan shall address steps that will be 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, the DNR, and the Commission.

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.

4.9 Wind Turbine Towers

Structures for wind turbines shall be self-supporting tubular towers. The towers may be up to 292 feet (89 meters) above grade measured at hub height. The wind turbine specifications in the table below were provided in the Permittee's July 17, 2019, site permit application and revised August 12, 2019, site permit application.

Design Feature	GE 2.82 WTG	GE 2.52 WTG
Generating Capacity	2.82 MW	2.52 MW
Total Height (ground to fully extended blade tip)	499 feet (152 m)	499 feet (152 m)
Hub Height	292 feet (89 m)	292 feet (89 m)
Rotor Diameter	417 feet (127 m)	417 feet (127 m)

4.10 Turbine Spacing

The turbine towers shall be constructed within the site boundary as shown on the site maps. The turbine towers shall be spaced no closer than three rotor diameters in the non-prevailing wind directions and five rotor diameters on the prevailing wind directions. If required, 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 private and public airports (as defined in Minn. R. 8800.0100, subp. 24(a) and 24(b)) in Minnesota, adjacent states, or provinces. The Permittee shall apply the minimum obstruction clearance for private airports pursuant to Minn. R. 8800.1900, subp. 5. Setbacks or other limitations shall be followed in accordance with the Minnesota Department of Transportation (MnDOT), Department of Aviation, and the FAA. The Permittee shall notify owners of all known airports within six miles of the project of the project's anticipated construction start date at least 14 days prior to the pre-construction meeting.

4.13 Footprint Minimization

The Permittee shall design and construct the LW ECS so as to minimize the amount of land that is impacted by the LW ECS. Associated facilities in the vicinity of turbines such as electrical/electronic boxes, 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.

5 GENERAL CONDITIONS

The Permittee shall comply with the following conditions during construction and operation of the LW ECS and associated facilities over the life of this permit.

5.1 Permit Distribution

Within 30 days of permit issuance, the Permittee shall send a copy of the permit and the complaint procedures to any regional development commission, county auditor and environmental office, and city and township clerk in which any part of the site is located.

Within 30 days of permit issuance, the Permittee shall provide all affected landowners with a copy of this permit and the complaint procedures. In no case shall the landowner receive this site

permit and complaint procedures less than five days prior to the start of construction on their property. An affected landowner is any landowner or designee that is within or adjacent to the permitted site.

5.2 Access to Property

The Permittee shall contact landowners prior to entering private property or conducting maintenance within the project site unless otherwise negotiated with the affected landowner.

5.3 Construction and Operation Practices

The Permittee shall comply with the construction practices, operation and maintenance practices, and material specifications described in the July 17, 2019, site permit application and subsequent revisions (August 9, 2019; February 21, 2020; and June 5, 2020) and the record of the proceedings unless this permit establishes a different requirement in which case this permit shall prevail.

5.3.1 Field Representative

The Permittee shall designate a field representative responsible for overseeing compliance with the conditions of this permit during construction of the project. This person shall be accessible by telephone or other means during normal business hours throughout site preparation, construction, cleanup, and restoration.

The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the field representative 14 days prior to the pre-construction meeting. The Permittee shall provide the field representative's contact information to affected landowners, residents, local government units and other interested persons 14 days prior to the pre-construction meeting. The Permittee may change the field representative at any time upon notice to the Commission, affected landowners, local government units and other interested persons.

5.3.2 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 the project. This person shall be accessible by telephone or other means during normal business hours for the life of this permit.

The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the site manager 14 days prior to the pre-operation meeting for the facility. The Permittee shall provide the site manager's contact information to affected landowners, residents, local government units and other interested persons 14 days prior to the pre-operation meeting for the facility. The Permittee may change the site manager at any time upon notice to the Commission, affected landowners, local government units and other interested persons.

5.3.3 Employee Training and Education of Permit Terms and Conditions

The Permittee shall inform and educate all employees, contractors, and other persons involved in the construction and ongoing operation of the LWECS of the terms and conditions of this permit.

5.3.4 Public Services and Public Utilities

During construction, the Permittee shall minimize any disruption to public services and public utilities. To the extent disruptions to public services or public utilities occur these will be temporary, and the Permittee will restore service promptly. Where any impacts to utilities have the potential to occur the Permittee will work with both landowners and local agencies to determine the most appropriate mitigation measures if not already considered as part of this permit.

5.3.5 Topsoil Protection

The Permittee shall implement measures to protect and segregate topsoil from subsoil on all lands unless otherwise negotiated with the affected landowner.

5.3.6 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. Soil decompaction measures shall be utilized on all lands utilized for project construction and travelled on by cranes, heavy equipment, and heavy trucks; even when soil compaction minimization measures are used.

5.3.7 Soil Erosion and Sediment Control

The Permittee shall implement those erosion prevention and sediment control practices recommended by the MPCA Construction Stormwater Program. If construction of the facility

disturbs more than one acre of land, or is sited in an area designated by the MPCA as having potential for impacts to water resources, the Permittee shall obtain a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit from the MPCA that provides for the development of a Stormwater Pollution Prevention Plan (SWPPP) that describes methods to control erosion and runoff.

The Permittee shall implement reasonable measures to minimize erosion and sedimentation during construction and shall employ perimeter sediment controls, protect exposed soil by promptly planting, seeding, using erosion control blankets and turf reinforcement mats, stabilizing slopes, protecting storm drain inlets, protecting soil stockpiles, and controlling vehicle tracking. Contours shall be graded as required so that all surfaces provide for proper drainage, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation and prevent erosion. All areas disturbed during construction of the facilities shall be returned to pre-construction conditions.

5.3.8 Wetlands and Water Resources

Construction in wetland areas shall occur during frozen ground conditions to minimize impacts, to the extent feasible. When construction during winter is not possible, wooden or composite mats shall be used to protect wetland vegetation. Soil excavated from the wetlands and riparian areas shall be contained and managed in accordance with all applicable wetland permits. Wetlands and riparian areas shall be accessed using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts.

Wetland and water resource areas disturbed by construction activities shall be restored to pre-construction conditions in accordance with the requirements of applicable state and federal permits or laws and landowner agreements. All requirements of the U.S. Army Corps of Engineers, Minnesota Department of Natural Resources, Minnesota Board of Water and Soil Resources and local units of government shall be met.

5.3.9 Vegetation Removal

The Permittee shall disturb or clear vegetation on the project site only to the extent necessary to assure suitable access for construction, and for safe operation and maintenance of the project. The Permittee shall minimize the number of trees removed in selecting the site layout specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences, and other vegetation, to the extent that such actions do not violate sound engineering principles.

5.3.10 Application of Pesticides

The Permittee shall restrict pesticide use to those pesticides and methods of application approved by the Minnesota Department of Agriculture (MDA), DNR, and the U.S. Environmental Protection Agency (EPA). Selective foliage or basal application shall be used when practicable. All pesticides shall be applied in a safe and cautious manner so as not to damage adjacent properties including crops, orchards, tree farms, apiaries, or gardens. The Permittee shall contact the landowner or designee to obtain approval for the use of pesticide at least 14 days prior to any application on their property. The landowner may request that there be no application of pesticides on any part of the site within the landowner's property. The Permittee shall provide notice of pesticide application to affected landowners and known beekeepers operating apiaries within three miles of the project site at least 14 days prior to such application.

5.3.11 Invasive Species

The Permittee shall employ best management practices to avoid the potential introduction and spread of invasive species on lands disturbed by project construction activities. The Permittee shall develop an Invasive Species Prevention Plan to prevent the introduction and spread of invasive species on lands disturbed by project construction activities and file with the Commission 14 days prior to the pre-construction meeting.

5.3.12 Noxious Weeds

The Permittee shall take all reasonable precautions against the spread of noxious weeds during all phases of construction. When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the Permittee shall select site appropriate seed certified to be free of noxious weeds. The Permittee shall consult with landowners on the selection and use of seed for replanting. To the extent possible, the Permittee shall use native seed mixes.

5.3.13 Public Roads

At least 14 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 (approved permits, written authorizations, road use agreements, development agreements, etc.) 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 may be subject to increased impacts due to transportation of equipment and project components. The Permittee shall notify the Commission of such arrangements upon request.

5.3.14 Turbine Access Roads

The Permittee shall construct the least number of turbine access roads necessary to safely and efficiently operate the project and satisfy landowner requests. Access roads shall be low profile roads so that farming equipment can cross them and shall be covered with Class 5 gravel or similar material.

Access roads shall not be constructed across streams and drainage ditches without required permits and approvals. When access roads are constructed across streams, drainage ways, or drainage ditches, the access roads shall be designed and constructed in a manner so runoff from the upper portions of the watershed can readily flow to the lower portion of the watershed. Any access roads that are constructed across streams or drainage ditches shall be designed and constructed in a manner that maintains existing fish passage. Access roads that are constructed across grassed waterways, which provide drainage for surface waters that are ephemeral in nature, are not required to maintain or provide fish passage. Access roads shall be constructed in accordance with all necessary township, county or state road requirements and permits.

5.3.15 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.

5.3.16 Archaeological and Historic Resources

The Permittee shall make every effort to avoid impacts to identified archaeological and historic resources when constructing the facility. In the event that a resource is encountered, the Permittee shall consult with the State Historic Preservation Office (SHPO) and the State Archaeologist. Where feasible, avoidance of the resource is required. Where not feasible, mitigation must include an effort to minimize project impacts on the resource consistent with

SHPO and State Archaeologist requirements.

Prior to 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 human remains are encountered during construction, the Permittee shall immediately halt construction at such location and promptly notify local law enforcement and the State Archaeologist. Construction at such location shall not proceed until authorized by local law enforcement and the State Archaeologist.

5.3.17 Interference

At least 14 days prior to the pre-construction meeting, the Permittee shall submit to the Commission 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 (FCC) 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.

5.3.18 Livestock Protection

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

5.3.19 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. When the Permittee installs a gate where electric fences are present, the Permittee shall provide for continuity in the electric fence circuit.

5.3.20 Drainage Tiles

The Permittee shall take into account, avoid, promptly repair or replace all drainage tiles broken or damaged during all phases of project's life unless otherwise negotiated with the affected landowner.

5.3.21 Equipment Storage

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

5.3.22 Restoration

The Permittee shall, as soon as practical following construction of each turbine, restore the areas affected by construction to the condition that existed immediately before construction began, to the extent possible. The time period to complete restoration may be no longer than 12 months after the completion of construction, unless otherwise negotiated with the affected landowner. Restoration shall be compatible with the safe operation, maintenance and inspection of the project. Within 60 days after completion of all restoration activities, the Permittee shall advise the Commission in writing of the completion of such activities.

5.3.23 Cleanup

All waste and scrap that is the product of construction shall be removed from the site and all premises on which construction activities were conducted and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

5.3.24 Pollution and Hazardous Waste

All appropriate precautions to protect against pollution of the environment shall be taken by the Permittee. The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean up and disposal of all wastes generated during construction, site restoration, and operation of the facility.

5.3.25 Damages

The Permittee shall fairly restore or compensate landowners for damage to crops, fences, private roads and lanes, landscaping, drain tile, or other damages sustained during

construction.

5.3.26 Public Safety

The Permittee shall provide educational materials to landowners adjacent to the site 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 Minn. Stat. § 216D.01, subd. 11, to Gopher State One Call following the completion of construction at the site.

5.3.27 Tower Identification

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

5.3.28 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.

The Permittee shall install and employ an FAA-approved lighting mitigation system. Such a system shall use aircraft detection (aircraft detection lighting system, ADLS), dimming (light intensity dimming solution, LIDS) or other FAA-approved mitigation method. The Permittee shall describe the lighting mitigation system used for the project in its site plan.

5.4 Communication Cables

The Permittee shall place all communication and supervisory control and data acquisition cables underground and within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner.

5.5 Electrical Collector and Feeder Lines

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.

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. Any overhead or underground 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 10.3.

5.6 Other Requirements

5.6.1 Safety Codes and Design Requirements

The LW ECS and associated facilities shall be designed to meet or exceed all relevant local and state codes, Institute of Electrical and Electronics Engineers, Inc. (IEEE) standards, the National Electric Safety Code (NESC), and North American Electric Reliability Corporation (NERC) requirements. The Permittee shall report to the Commission on compliance with these standards upon request.

5.6.2 Other Permits and Regulations

The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the project and comply with the conditions of those permits unless those permits conflict with or are preempted by federal or state permits and regulations. A list of the permits known to be required for the project is included in the Permittee's site permit applications. At least 14 days prior to the pre-construction meeting, the Permittee shall submit a filing with a detailed status update of all permits, authorizations, and approvals that have been applied for specific to the project. The detailed status update shall include the permitting agency or authority, the name of the permit, authorization, or approval being sought, contact person and contact information for the permitting agency or authority, brief description of why the permit, authorization, or approval is needed, application submittal date, and the date the permit, authorization, or approval was issued or is anticipated to be issued.

The Permittee shall demonstrate that it has obtained all necessary permits, authorizations, and approvals by filing an affidavit stating as such, prior to commencing project construction. The

Permittee shall provide a copy of any such permits, authorizations, and approvals upon Commission request.

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 preempted by federal or state permits and regulations.

6 SPECIAL CONDITIONS

Special conditions shall take precedence over other conditions of this permit should there be a conflict.

6.1 Leslie Wigton Property

The Permittee shall work with Mr. Leslie Wigton of Lake Benton, Minn. to locate and/or relocate the proposed underground collection cables in such a manner that shall: 1) avoid the potential for interference on the existing drain tiles or proposed modifications or additions to future drain tiles that Mr. Wigton can provide prior to construction; and 2) avoid harm or damage to lands and grasses established and maintained for wildlife. The Permittee shall file documentation describing how harm or damage to existing or proposed drain tiles and lands and grasses established for wildlife will be avoided or describe any agreement reached by the Permittee and Mr. Wigton. This documentation shall be filed at least two weeks prior to the pre-construction meeting.

6.2 Soil and Water Conservation District (SWCD) and Landowner Review of Plans

The Permittee shall provide the local SWCD and participating landowners with the opportunity to review and comment on detailed access road, and all other infrastructure plans and designs in order to minimize the potential to pond and/or divert water creating gully erosion or the potential to cause damage or failure to existing conservation practices, such as terrace(s), sediment control basin(s), or diversion(s) prior to finalization and installation. The Permittee shall file documentation demonstrating compliance with this permit condition at least two weeks prior to the pre-construction meeting.

7 SURVEYS AND REPORTING

7.1 Biological and Natural Resource Inventories

The Permittee, in consultation with the Commission and the DNR, shall design and conduct pre-

construction desktop and field inventories of existing wildlife management areas, scientific and natural areas, recreation areas, native prairies and forests, wetlands, and any other biologically sensitive areas within the project site and assess the presence of state- or federally-listed or threatened species. The results of the inventories shall be filed with the Commission at least 30 days prior to the pre-construction meeting to confirm compliance of conditions in this permit. The Permittee shall file with the Commission, any biological surveys or studies conducted on this project, including those not required under this permit.

7.2 Shadow Flicker

At least 14 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 within and outside of the project boundary potentially subject to turbine shadow flicker exposure. Information shall include the results of modeling used, assumptions made, and the anticipated levels of exposure from turbine shadow flicker for each residence. The Permittee shall provide documentation on its efforts to avoid, minimize and mitigate shadow flicker exposure. The results of any modeling shall be filed with the Commission at least 14 days prior to the pre-construction meeting to confirm compliance with conditions of this permit.

The Permittee shall provide a discussion detailing the communications with all the landowners with expected shadow flicker of more than 30 hours per year regarding possible mitigations and the complaint process. The results of these communications shall be filed with the Commission at least 14 days prior to the pre-construction meeting to confirm compliance.

7.3 Wake Loss Studies

At least 14 days prior to the pre-construction meeting, the Permittee shall file with the Commission the pre-construction micro-siting analysis leading to the final tower locations and an estimate of total project wake losses. As part of the annual report on project energy production required under Section 10.8 of the permit the Permittee shall file with the Commission any operational wake loss studies conducted on this project during the calendar year preceding the report.

7.4 Noise Studies

The Permittee shall file a proposed methodology for the conduct of a post-construction noise study at least 14 days prior to the pre-construction meeting. The Permittee shall

develop the post-construction noise study methodology in consultation with the Department of Commerce. The study must incorporate the Department of Commerce Noise Study Protocol 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 must conduct the post- construction noise study and file with the Commission the completed post-construction noise study within 18 months of commencing commercial operation.

The Permittee shall provide a discussion detailing the communications with the residents at receptor 44 regarding possible noise mitigations and the complaint process. The results of these communications shall be filed with the Commission at least 14 days prior to the pre-construction meeting to confirm compliance.

7.5 Avian and Bat Protection

7.5.1 Operational Phase Fatality Monitoring

The Permittee shall utilize a qualified third party to conduct a minimum of two full years of avian and bat fatality monitoring following the commencement of the operational phase of the project. Monitoring activities and results will be coordinated directly with MN DNR, USFWS, and the Commission. Detailed monitoring protocols, agency coordination, and any avoidance and minimization measures will be detailed in the project's ABPP.

7.5.2 Avian and Bat Protection Plan

The Permittee shall comply with the provisions of the most recently filed and accepted version of the Avian and Bat Protection Plan (ABPP). The initial version of the ABPP submitted for this project as part of the July 17, 2019, site permit application, and all necessary revisions that occur during the permit issuance process will be incorporated into a permit version. The permit version of the ABPP must be filed with the Commission 14 days before the pre-construction meeting, and revision must include any updates associated with the final construction plans and site plans.

The ABPP must 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 ABPP shall also include formal and incidental post-construction fatality monitoring, training, wildlife handling, documentation (e.g., photographs), and reporting protocols for each phase of the project.

The Permittee shall, by the 15th of March following each complete or partial calendar year of operation, file with the Commission an annual report detailing findings of its annual audit of ABPP practices. The annual report shall include summarized and raw data of bird and bat fatalities and injuries and shall include bird and bat fatality estimates for the project using agreed upon estimators from the prior calendar year. The annual report shall also identify any deficiencies or recommended changes in the operation of the project or in the ABPP to reduce avian and bat fatalities and shall provide a schedule for implementing the corrective or modified actions. The Permittee shall provide a copy of the report to the Department of Commerce – Energy Environmental Review and Analysis, Minnesota Department of Natural Resources and to the U.S. Fish and Wildlife Service (FWS) at the time of filing with the Commission.

7.5.3 Quarterly Incident Reports

The Permittee shall submit quarterly avian and bat reports to the Commission. Quarterly reports are due by the 15th of 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. If a dead or injured avian or bat species is found, the report shall describe the potential cause of the occurrence (if known) and the steps taken to address future occurrences. The Permittee shall provide a copy of the report to the DNR and to the FWS at the time of filing with the Commission.

7.5.4 Immediate Incident Reports

The Permittee shall notify the Commission, Department of Commerce Energy Environmental Review and Analysis staff (EERA), the FWS, and the DNR within 24 hours of the discovery of any of the following:

- (a) five or more dead or injured birds or bats, at an individual turbine location, within a five day reporting period;
- (b) twenty or more dead or injured birds or bats, across the entire facility, within a five day reporting period;
- (c) one or more dead or injured state threatened, endangered, or species of special concern;
- (d) one or more dead or injured federally listed species, including species proposed for listing; or

(e) one or more dead or injured bald or golden eagle(s).

In the event that one of the five discoveries listed above should be made, the Permittee must file with the Commission within seven days, a compliance report identifying the details of what was discovered, the turbine where the discovery was made, a detailed log of agencies and individuals contacted, and current plans being undertaken to address the issue.

7.5.5 Turbine Operational Curtailment

The Permittee shall operate all facility turbines so that all turbines are locked or feathered up to the manufacturer's standard cut-in speed from one-half hour before sunset to one-half hour after sunrise of the following day from April 1 to October 31 of each year of operation. All operating turbines at the facility must be equipped with operational software that is capable of allowing for adjustment of turbine cut-in speeds.

8 AUTHORITY TO CONSTRUCT LWECS

8.1 Wind Rights

At least 14 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 authorized by this permit. Nothing in this permit shall be construed to preclude any other person from seeking a permit to construct a wind energy conversion system 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.

8.2 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 Minn. R. 7854.1300.

8.3 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 Minn. R. 7854.1300.

9 COMPLAINT PROCEDURES

Fourteen (14) days prior to the pre-construction meeting, the Permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements of Minn. R. 7829.1500 or Minn. R. 7829.1700, and as set forth in the complaint procedures attached to this permit.

Upon request, the Permittee shall assist the Commission with the disposition of unresolved or longstanding complaints. This assistance shall include, but is not limited to, the submittal of complaint correspondence and complaint resolution efforts.

10 COMPLIANCE REQUIREMENTS

Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit. Compliance filings must be electronically filed with the Commission.

10.1 Pre-Construction Meeting

Prior to the start of any construction, the Permittee shall participate in a pre-construction meeting with the Department of Commerce and Commission staff to review pre-construction filing requirements, scheduling, and to coordinate monitoring of construction and site restoration activities. Within 14 days following the pre-construction meeting, the Permittee shall file with the Commission, a summary of the topics reviewed and discussed and a list of attendees. The Permittee shall indicate in the filing the construction start date.

10.2 Pre-Operation Meeting

At least 14 days prior to commercial operation of the facility, the Permittee shall participate in a

pre-operation meeting with the Department of Commerce and Commission staff to coordinate field monitoring of operation activities for the project. Within 14 days following the pre-operation meeting, the Permittee shall file with the Commission, a summary of the topics reviewed and discussed and a list of attendees.

10.3 Site Plan

At least 14 days prior to the pre-construction meeting, the Permittee shall provide the Commission, the Department of Commerce, the Lincoln County Environmental Office, and the Lincoln County Department of Public Works with a site plan that includes specifications and drawings for site preparation and grading; specifications and locations of all turbines and other structures to be constructed including all electrical equipment, collector and feeder lines, pollution control equipment, fencing, roads, and other associated facilities; and procedures for cleanup and restoration. The documentation shall include maps depicting the site boundary and layout in relation to that approved by this permit. 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. At the same time, the Permittee shall notify affected landowners and city and town clerks that the site plan is on file with the Commission and the Lincoln County Environmental Office and the Lincoln County Department of Public Works. 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 may not commence construction until the Commission has advised the Permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the Permittee intends to make any significant changes to its site plan or the specifications and drawings after submission to the Commission, the Permittee shall notify the Commission, the Department of Commerce, the Lincoln County Environmental Office and the Lincoln County Department of Public Works, city and town clerks, and the affected landowners at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

In the event that previously unidentified human and 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. Under these circumstances, the Permittee shall notify the Commission, the Department of Commerce, the MPCA, the DNR, the Lincoln County Department of

Environmental Services and the Lincoln County Department of Public Works, city and town clerks, and the affected landowners of any turbines that are to be relocated, and provide the previously unidentified environmental conditions and how the movement of the turbine mitigates the human and environmental impact at least five days before implementing the changes. No changes shall be made that would be in violation of any terms of this permit.

10.4 Status Reports

The Permittee shall file status reports with the Commission on progress regarding site construction. The Permittee need not report more frequently than monthly. Reports shall begin with the commencement of site construction and continue until completion of restoration. Reports shall describe construction activities and progress and activities undertaken in compliance with this permit. Reports shall include text and photographs.

10.5 Labor Statistic Reporting

The Permittee shall file quarterly reports with the Commission within 45 days of the end of the quarter regarding construction workers that participated in the construction of the project. The reports shall (a) detail the Permittee's efforts and the site contractor's efforts to hire Minnesota workers, and (b) provide an account of: (i) the gross number of hours worked by or full-time equivalent workers who are Minnesota residents, as defined in Minn. Stat. § 290.01, subd. 7; (ii) the gross number of hours worked by or full-time equivalent workers who are residents of other states, but maintain a permanent residence within 150 miles of the project; and (iii) the total gross hours worked or total full-time equivalent workers. Permittee shall work with its contractor to determine the suitable reporting metric. The report may not include personally identifiable data.

10.6 In-Service Date

At least three days before the facility is to be placed into service, the Permittee shall notify the Commission of the date on which the facility will be placed into service and the date on which construction was completed.

10.7 As-Builts

Within 90 days after completion of construction, the Permittee shall submit copies of all final as-built plans and specifications developed during the project.

10.8 GPS Data

Within 90 days after completion of construction, the Permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (e.g., ArcGIS compatible map files, GPS coordinates, associated database of characteristics) for all structures associated with the LWECS.

10.9 Project Energy Production

The Permittee shall, by February 1st following each complete or partial year of project operation, file a report with the Commission on the monthly energy production of the project including:

- (a) the installed 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.

The permittee shall file this information in a format recommended in the Department's guidance on energy production reporting. This information shall be considered public and must be filed electronically.

10.10 Wind Resource Use

The Permittee shall, by February 1st following each complete or partial calendar year of operation, file with the Commission the average monthly and average annual wind speed collected at one permanent meteorological tower during the preceding year or partial year of operation. This information shall be considered public and must be filed electronically.

10.11 Emergency Response

The Permittee shall prepare an Emergency Response Plan in consultation with the emergency responders having jurisdiction over the facility prior to project construction. The Permittee shall submit a copy of the plan, along with any comments from emergency responders, to the

Commission at least 14 days prior to the pre-construction meeting and a revised plan, if any, at least 14 days prior to the pre-operation meeting. The Permittee shall provide as a compliance filing confirmation that the Emergency Response Plan was provided to the emergency responders and Public Safety Answering Points (PSAP) with jurisdiction over the facility prior to commencement of construction. The Permittee shall obtain and register the facility address or other location indicators acceptable to the emergency responders and PSAP having jurisdiction over the facility.

10.12 Extraordinary Events

Within 24 hours of discovery 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, acts of sabotage, collector or feeder line failure, and injured worker or private person. The Permittee shall, within 30 days of the occurrence, file a report with the Commission describing the cause of the occurrence and the steps taken to avoid future occurrences.

11 DECOMMISSIONING, RESTORATION, AND ABANDONMENT

11.1 Decommissioning Plan

The Permittee shall comply with the provisions of the most recently filed and accepted decommissioning plan. The initial version of the decommissioning plan was submitted for this project as part of the July 17, 2019, and August 9, 2019, site permit applications. The Permittee shall file an updated decommissioning plan, incorporating comments and information from the permit issuance process and any updates associated with the final construction plans, with the Commission 14 days before the pre-construction meeting. The decommissioning plan shall be updated every five years following the commercial operation date.

The plan shall provide information identifying all surety and financial securities established for decommissioning and site restoration of the project in accordance with the requirements of Minn. R. 7854.0500, subp. 13. The decommissioning plan shall provide an itemized breakdown of costs of decommissioning all project components, which shall include labor and equipment. The plan shall identify cost estimates for the removal of turbines, turbine foundations, underground collection cables, access roads, crane pads, substations, and other project components. The plan may also include anticipated costs for the replacement of turbines or repowering the project by upgrading equipment.

The Permittee shall also submit the decommissioning plan to the local unit of government

having direct zoning authority over the area in which the project is located. 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.

11.2 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. 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. To the extent feasible, the Permittee shall restore and reclaim the site to pre-project conditions, including topography and topsoil conditions. All access roads shall be removed unless written approval is given by the affected landowner requesting that one or more roads, or portions thereof, be retained. All such agreements between the Permittee and the affected landowner 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 of termination.

11.3 Abandoned Turbines

The Permittee shall advise the Commission of any turbines that are abandoned prior to termination of operation of the project. The project, or any turbine within the project, shall be considered abandoned after one year without energy production and the land restored pursuant to Section 11.2 unless a plan is submitted to and approved by the Commission outlining the steps and schedule for returning the project, or any turbine within the project, to service.

12 COMMISSION AUTHORITY AFTER PERMIT ISSUANCE

12.1 Final Boundaries

After completion of construction, the Commission shall determine the need to adjust the final boundaries of the site required for this project in accordance with Minn. R. 7854.1300, subp. 1.

12.2 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.

12.3 Periodic Review

The Commission shall initiate a review of this permit and the applicable conditions at least once every five 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.

12.4 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.

12.5 More Stringent Rules

The issuance of this 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.

12.6 Right of Entry

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

- (a) To enter upon the facilities easement of the 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.
- (d) To examine and copy any documents pertaining to compliance with the conditions of this permit.

12.7 Proprietary Information

Certain information required to be filed with the Commission under this permit may constitute trade secret information or other type of proprietary information under the Data Practices Act or other law. The Permittee must satisfy requirements of applicable law to obtain the protection afforded by the law.

13 PERMIT AMENDMENT

This permit may be amended at any time by the Commission in accordance with Minn. R. 7854.1300, subp. 2. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the Permittee. The Commission may amend the conditions after affording the Permittee and interested persons such process as is required.

14 TRANSFER OF PERMIT

The Permittee may request at any time that the Commission transfer this permit to another person or entity. The Permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittee, the new permittee, and interested persons such process as is required. The Commission may impose additional conditions on any new permittee as part of the approval of the transfer.

Within 14 days of beginning operation, the Permittee shall file a notice describing its ownership structure, identifying, as applicable:

- (a) the owner(s) of the financial and governance interests of the Permittee;

- (b) the owner(s) of the majority financial and governance interests of the Permittee's owners; and
- (c) the Permittee's ultimate parent entity (meaning the entity which is not controlled by any other entity).

The Permittee shall immediately notify the Commission of:

- (a) a change in owner(s) of the majority* financial or governance interests in the Permittee;
- (b) a change in owner(s) of the majority* financial or governance interests of the Permittee's owners; or
- (c) a sale which changes the parent entity of the Permittee.

**When there are only co-equal 50/50 percent interests, any change shall be considered a change in majority interest.*

The Permittee shall notify the Commission of:

- (a) the sale of a parent entity or a majority interest in the Permittee;
- (b) the sale of a majority interest of the Permittee's owners or majority interest of the owners; or
- (c) a sale which changes the entity with ultimate control over the Permittee.

15 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;
- (c) there has been a material violation of a provision of an applicable statute, rule, or

an order of the Commission; or

- (d) the Permittee has filed a petition with the Commission requesting that the permit be revoked or terminated.

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 Minn. R. 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.

16 EXPIRATION DATE

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

ATTACHMENT 1
Complaint Handling Procedures for Permitted Energy Facilities

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

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

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 Minnesota Public Utilities Commission (Commission) under Minn. R. 7829.1500 or Minn. R. 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 or route preparation, cleanup or restoration, or other permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written complaint alleging a violation of a specific 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, remains unresolved or unsatisfactorily resolved to one or both of the parties.

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 designate a representative responsible for filing complaints to the Commission's eDocket system. This person's name, phone number and email address shall accompany all complaint submittals. The name and contact information for the representative shall be kept current in eDockets.

2. A person presenting the complaint should, to the extent possible, include the following information in their communications:
 - a. name, address, phone number, and email address;
 - b. initial date of the complaint;
 - c. tract, parcel number, or address of the complaint;
 - d. a summary of the complaint; and
 - e. whether the complaint relates to a permit violation, a construction practice issue, or other type of complaint.

3. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
 - a. docket number and project name;
 - b. name of complainant, address, phone number and email address;
 - c. precise description of property or parcel number;
 - d. name of permittee representative receiving complaint and date of receipt;
 - e. nature of complaint and the applicable permit condition(s);
 - f. summary of activities undertaken to resolve the complaint; and
 - g. a statement on the final disposition of the complaint.

F. Reporting Requirements

The permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit, unless otherwise required below. 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 the Commission’s Public Advisor at 1-800-657-3782 (voice messages are acceptable) or publicadvisor.puc@state.mn.us. For e-mail reporting, the email subject line should read “PUC EFP Complaint” and include the appropriate project docket number.

Monthly Reports: During project construction, restoration, and operation, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed by the 15th of each month to Will Seuffert, Executive Secretary, Public Utilities Commission, using the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>. If no complaints were received during the preceding month, the permittee shall file a summary indicating that no complaints were received.

If a project has submitted twelve consecutive months of complaint reports with no complaints, monthly

reports can terminate by a letter to eDockets notifying the Commission of such action. If a substantial complaint is received (by the company or the Commission) following termination of the monthly complaint report, as noted above, the monthly reporting should commence for a period of one year following the most recent complaint or upon resolution of all pending complaints.

If a permittee is found to be in violation of this section, the Commission may reinstate monthly complaint reporting for the remaining permit term or enact some other commensurate requirement via notification by the Executive Secretary or some other action as decided by the Commission.

G. Complaints Received by the Commission

Complaints received directly by the Commission from aggrieved persons regarding the permit or issues related to site or route preparation, construction, cleanup, restoration, or operation and maintenance will be promptly sent to the permittee.

The permittee shall notify the Commission when the issue has been resolved. The permittee will add the complaint to the monthly reports of all complaints. If the permittee is unable to find resolution, the Commission will use the process outlined in the Unresolved Complaints Section to process the issue.

H. Commission Process for Unresolved Complaints

Complaints raising substantial and unresolved permit issues will be investigated by the Commission. Staff will notify the permittee and appropriate persons if it determines that the complaint is a substantial complaint. With respect to such complaints, the permittee and complainant shall be required to submit a written summary of the complaint and its current position on the issues to the Commission. Staff will set a deadline for comments. As necessary, the complaint will be presented to the Commission for consideration.

I. Permittee Contacts for Complaints and Complaint Reporting

Complaints may be filed by mail or email to the permittee's designated complaint representative, or to the Commission's Public Advisor at 1-800-657-3782 or publicadvisor.puc@state.mn.us. The name and contact information for the permittee's designated complaint representative shall be kept current in the Commission's eDocket system.

ATTACHMENT 2

Compliance Filing Procedures for Permitted Energy Facilities

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

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

B. Scope and Applicability

This procedure encompasses all known compliance filings required by permit.

C. Definitions

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

D. Responsibilities

1. The permittee shall file all compliance filings with Will Seuffert, Executive Secretary, Public Utilities Commission, through the eDockets system. The eDockets system is located at:
<https://www.edockets.state.mn.us/EFiling/home.jsp>

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

2. All filings must have a cover sheet that includes:
 - a. Date
 - b. Name of submitter/permittee
 - c. Type of permit (site or route)
 - d. Project location
 - e. Project docket number
 - f. Permit section under which the filing is made
 - g. Short description of the filing

3. Filings that are graphic intensive (e.g., maps, engineered drawings) must, in addition to being electronically filed, be submitted as paper copies and on CD. Paper copies and CDs should be sent to: 1) Will Seuffert, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147, and 2) Department of Commerce, Energy Environmental Review and Analysis, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

The Commission may request a paper copy of any electronically filed document.

PERMIT COMPLIANCE FILINGS¹

PERMITTEE: BUFFALO RIDGE WIND, LLC

PERMIT TYPE: LARGE WIND ENERGY CONVERSION SYSTEM

PROJECT LOCATION: LINCOLN AND PIPESTONE COUNTIES

PUC DOCKET NUMBER: IP-7006/WS-19-394

Filing Number	Permit Section	Description of Compliance Filing	Due Date
1	4.7	Prairie Protection and Management Plan	30 days prior to submitting site plan, as necessary
2	4.12	Notification to Airports	14 days prior to pre-construction meeting
3	5.1	Distribution of Permit and Complaint Procedures	Within 30 days of permit issuance
4	5.3.1	Field Representative	14 days prior to commencing construction
5	5.3.2	Site Manager	14 days prior to commercial operation
6	5.3.7	NPDES/SDS and SWPPP Permits	In accordance with the Minnesota Pollution Control Agency
7	5.3.10	Landowner Notification of Pesticide Application	14 days prior to application
8	5.3.11	Invasive Species Protection Plan	14 days prior to pre-construction meeting
9	5.3.13	Identification of Roads and Road Agreement	14 days prior to pre-construction meeting

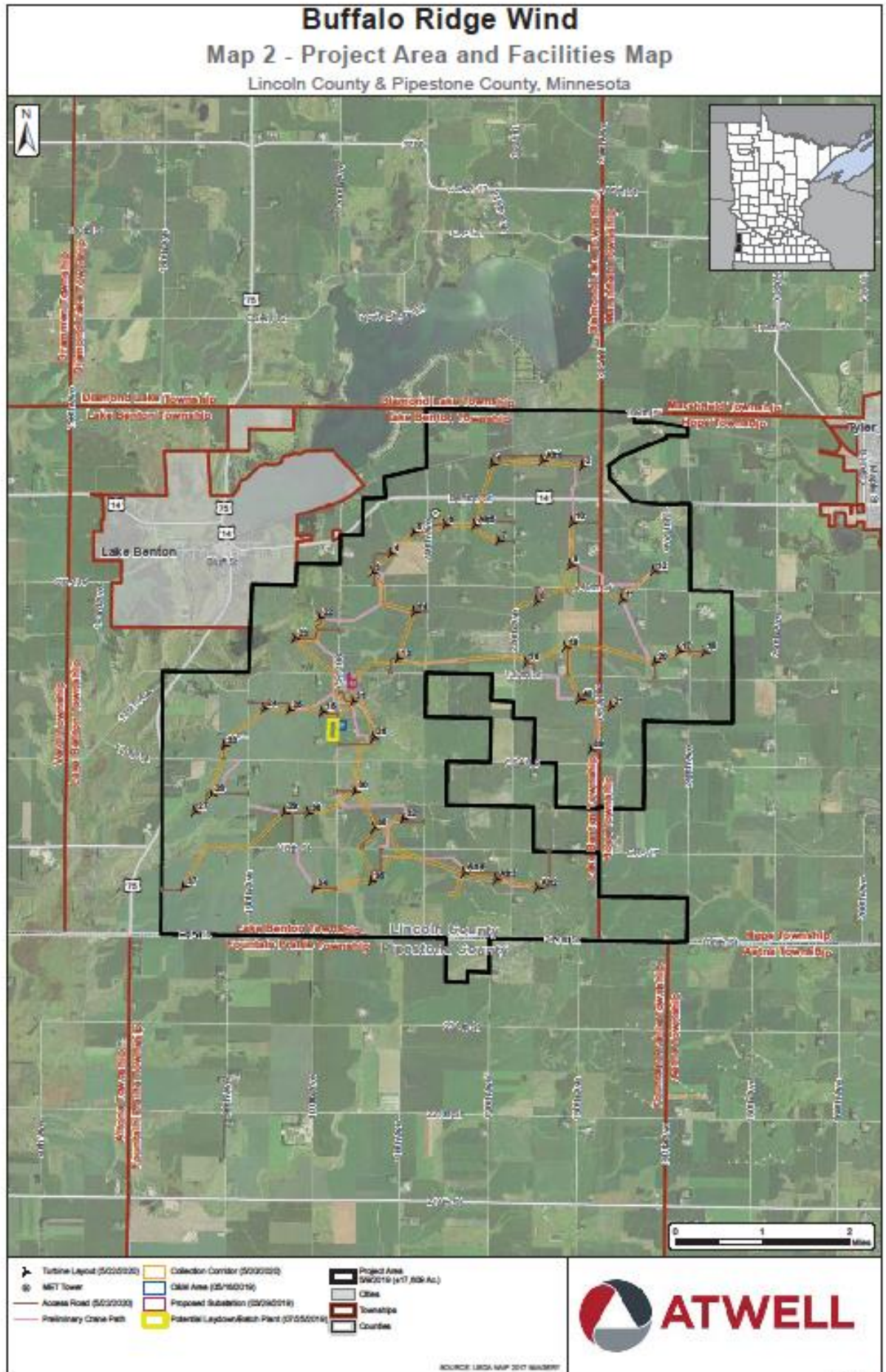
¹ This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. It is not a substitute for the permit; the language of the permit controls.

Filing Number	Permit Section	Description of Compliance Filing	Due Date
10	5.3.17	Assessment of Interference with Electronic Communications	14 days prior to pre-construction meeting
11	5.3.22	Site Restoration	60 days after completion of restoration
12	5.3.26	Public Safety / Education Materials	Upon request
13	5.6.2	Other Permits and Regulations	14 days prior to pre-construction meeting
14	6.1	Leslie Wigton Property	14 days prior to pre-construction meeting
15	6.2	SWCD Review of Plans	14 days prior to pre-construction meeting
16	7.1	Biological and Natural Resource Inventories	30 days prior to the pre-construction meeting
17	7.2	Shadow Flicker Data	14 days prior to pre-construction meeting
18	7.3	Wake Loss Studies	14 days prior to pre-construction meeting and with annual report
19	7.4	Post-Construction Noise Methodology	14 days prior to pre-construction meeting
20	7.4	Post-Construction Noise Study	Within 18 months of completion of the repowering project
21	7.5.1	Avian and Bat Fatality Monitoring Results	Upon completion of monitoring

Filing Number	Permit Section	Description of Compliance Filing	Due Date
22	7.5.2	Avian and Bat Protection Plan Audits	14 days prior to pre-construction meeting, and 15th of March each year or partial year
23	7.5.3	Quarterly Incident Reports	15th of January, April, July and October
24	7.5.4	Immediate Incident Reports	Within 24 hours of discovery and a report within 7 days
25	8.1	Demonstration of Wind Rights	14 days prior to pre-construction meeting
26	8.2	Power Purchase Agreement Notification	Within 60 days of the expiration of the PPA
27	9.0	Complaint Procedures	14 days prior to pre-construction meeting
28	10.1	Pre-Construction Meeting Summary	Within 14 days following the meeting
29	10.2	Pre-Operation Meeting	14 days prior to commercial operation
30	10.3	Site Plan	14 days prior to pre-construction meeting
31	10.4	Construction Status Reports	Monthly
32	10.5	Labor Statistic Reporting	Within 45 days of the end of each quarter
33	10.6	Notice of In-Service Date	3 days before facility is placed into service

Filing Number	Permit Section	Description of Compliance Filing	Due Date
34	10.7	As-Builts	Within 90 days of completion of construction
35	10.8	GPS Data	Within 90 days of completion of construction
36	10.9	Project Energy Production	February 1st of each year
37	10.10	Wind Resource Use	February 1st of each year
38	10.11	Emergency Response Plan	14 days prior to pre-construction meeting
39	10.12	Extraordinary Event	Within 24 hours of discovery
40	11.1	Decommissioning Plan	14 days prior to pre-construction meeting
41	14	Ownership Structure	Within 14 days of beginning operation

ATTACHMENT 3
Site Map



CERTIFICATE OF SERVICE

I, Nancy Jia, hereby certify that I have this day, served a true and correct copy of the following document to all persons at the addresses indicated below or on the attached list by electronic filing, electronic mail, courier, interoffice mail or by depositing the same enveloped with postage paid in the United States mail at St. Paul, Minnesota.

Minnesota Public Utilities Commission
ORDER GRANTING CERTIFICATE OF NEED AND ISSUING SITE PERMIT

Docket Number

IP-7006/CN-19-309

IP-7006/WS-19-394

Dated this **5th** day of **January 2021**

/s/ Nancy Jia

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Barbara	Case	barbara.case@state.mn.us	Office of Administrative Hearings	600 N. Robert St. St. Paul, Mn. 55101	Electronic Service	No	OFF_SL_19-309_19-309
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-309_19-309
Kate	Fairman	kate.frantz@state.mn.us	Department of Natural Resources	Box 32 500 Lafayette Rd St. Paul, MN 551554032	Electronic Service	No	OFF_SL_19-309_19-309
Annie	Felix Gerth	annie.felix-gerth@state.mn.us		Board of Water & Soil Resources 520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	OFF_SL_19-309_19-309
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_19-309_19-309
Kari	Howe	kari.howe@state.mn.us	DEED	332 Minnesota St, #E200 1ST National Bank Bldg St. Paul, MN 55101	Electronic Service	No	OFF_SL_19-309_19-309
Roger	Johnson	rljohnson@702com.net		815 11th Street N Breckenridge, MN 56520	Electronic Service	No	OFF_SL_19-309_19-309
STACY	KOTCH EGSTAD	Stacy.Kotch@state.mn.us	MINNESOTA DEPARTMENT OF TRANSPORTATION	395 John Ireland Blvd. St. Paul, MN 55155	Electronic Service	No	OFF_SL_19-309_19-309
Ray	Kirsch	Raymond.Kirsch@state.mn.us	Department of Commerce	85 7th Place E Ste 500 St. Paul, MN 55101	Electronic Service	No	OFF_SL_19-309_19-309
Karen	Kromar	karen.kromar@state.mn.us	MN Pollution Control Agency	520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	OFF_SL_19-309_19-309

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Susan	Medhaug	Susan.medhaug@state.mn.us	Department of Commerce	Suite 280, 85 Seventh Place East St. Paul, MN 551012198	Electronic Service	No	OFF_SL_19-309_19-309
Brian	Meloy	brian.meloy@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-309_19-309
Brian J	Murphy	Brian.J.Murphy@nee.com	Nextera Energy Resources, LLC	700 Universe Blvd LAW-JB Juno Beach, FL 33408	Electronic Service	No	OFF_SL_19-309_19-309
Kevin	Pranis	kpranis@liunagro.com	Laborers' District Council of MN and ND	81 E Little Canada Road St. Paul, Minnesota 55117	Electronic Service	No	OFF_SL_19-309_19-309
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_19-309_19-309
Stephan	Roos	stephan.roos@state.mn.us	MN Department of Agriculture	625 Robert St N Saint Paul, MN 55155-2538	Electronic Service	No	OFF_SL_19-309_19-309
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-309_19-309
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	7400 Lyndale Ave S Ste 190 Richfield, MN 55423	Electronic Service	Yes	OFF_SL_19-309_19-309
Cynthia	Warzecha	cynthia.warzecha@state.mn.us	Minnesota Department of Natural Resources	500 Lafayette Road Box 25 St. Paul, Minnesota 55155-4040	Electronic Service	No	OFF_SL_19-309_19-309

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Barbara	Case	barbara.case@state.mn.us	Office of Administrative Hearings	600 N. Robert St. St. Paul, Mn. 55101	Electronic Service	No	OFF_SL_19-394_Official
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-394_Official
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_19-394_Official
Danell	Herzig	danell.herzig@nexteraenergy.com	NextEra Energy Resources, LLC	700 Universe Blvd Juno Beach, FL 33408	Electronic Service	No	OFF_SL_19-394_Official
STACY	KOTCH EGSTAD	Stacy.Kotch@state.mn.us	MINNESOTA DEPARTMENT OF TRANSPORTATION	395 John Ireland Blvd. St. Paul, MN 55155	Electronic Service	No	OFF_SL_19-394_Official
Karen	Kromar	karen.kromar@state.mn.us	MN Pollution Control Agency	520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	OFF_SL_19-394_Official
Brian	Meloy	brian.meloy@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-394_Official
Brian J	Murphy	Brian.J.Murphy@nee.com	Nextera Energy Resources, LLC	700 Universe Blvd LAW-JB Juno Beach, FL 33408	Electronic Service	No	OFF_SL_19-394_Official
Carol A.	Overland	overland@legalelectric.org	Legalelectric - Overland Law Office	1110 West Avenue Red Wing, MN 55066	Electronic Service	No	OFF_SL_19-394_Official
Kevin	Pranis	kpranis@liunagroc.com	Laborers' District Council of MN and ND	81 E Little Canada Road St. Paul, Minnesota 55117	Electronic Service	No	OFF_SL_19-394_Official

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Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-394_Official
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	7400 Lyndale Ave S Ste 190 Richfield, MN 55423	Electronic Service	Yes	OFF_SL_19-394_Official
Cynthia	Warzecha	cynthia.warzecha@state.mn.us	Minnesota Department of Natural Resources	500 Lafayette Road Box 25 St. Paul, Minnesota 55155-4040	Electronic Service	No	OFF_SL_19-394_Official