

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

In the Matter of the Application of Nobles 2
Power Partners, LLC for a Certificate of
Need for the up to 260 MW Nobles 2 Wind
Project and Associated Facilities in Nobles
County, Minnesota

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In the Matter of the Application of Nobles 2 Power Partners, LLC for a Certificate of Need for the up to 260 MW Nobles 2 Wind Project and Associated Facilities in Nobles County, Minnesota

**SUMMARY OF PUBLIC TESTIMONY,
FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND RECOMMENDATION**

In the Matter of the Application of Nobles 2 Power Partners, LLC for a Site Permit for the up to 260 MW Nobles 2 Wind Project and Associated Facilities in Nobles County, Minnesota

This matter was assigned to Administrative Law Judge Jessica A. Palmer-Denig to conduct a public hearing and provide a summary of public testimony on the Certificate of Need (MPUC Docket No. CN-16-289) and Site Permit (MPUC Docket No. WS-17-597) Applications of Nobles 2 Power Partners, LLC (Nobles 2 or Applicant) for an up to 260 megawatt (MW) wind energy conversion system and associated facilities in Nobles County, Minnesota (the Project). The Minnesota Public Utilities Commission (MPUC or Commission) also requested that the Administrative Law Judge prepare Findings of Fact, Conclusions of Law, and Recommendations on the merits of the Site Permit Application and provide recommendations, if any, on conditions and provisions for the proposed site permit.

Joint public hearings on the Site Permit and Certificate of Need Applications for the Project were held on June 20, 2018, at 1:00 p.m. and 6:00 p.m., in Wilmont, Minnesota in Nobles County. The record remained open for the receipt of public comments until July 11, 2018. On July 11, 2018, and July 25, 2018, Applicant and the Department of Commerce-Energy Environmental Review and Analysis Unit (DOC-EERA) filed post-hearing submissions. The Office of Administrative Hearings' record closed upon the filing of the last post-hearing submission on July 25, 2018.

Jeremy P. Duehr, Fredrikson & Byron, P.A., 200 South Sixth Street, Suite 4000, Minneapolis, Minnesota 55402, Scott Seier, Vice President of Strategic Development and Acquisitions, Justin Vala, Director of Engineering and the Technical Lead for Tenaska's Wind Program, and Joseph Finocchiaro, Director of Environmental Programs of Tenaska, Inc. appeared on behalf of Nobles 2 Power Partners, LLC.

David Birkholz and Jamie MacAlister, Environmental Review Managers, 445 Minnesota Street, Suite 1500, St. Paul, MN 55101 appeared on behalf of the DOC-EERA.

Michael Kaluzniak, Minnesota Public Utilities Commission Staff (Staff), 121 Seventh Place East, Suite 350, St. Paul, MN 55101, participated in this matter on behalf of the Staff.

STATEMENT OF THE ISSUE

Has Applicant satisfied the criteria established in Minn. Stat. ch. 216F (2018) and Minn. R. ch. 7854 (2017) for a site permit for its proposed wind energy conversion system of up to 260 MW in Nobles County, Minnesota?

SUMMARY OF RECOMMENDATION

The Administrative Law Judge concludes that Applicant 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 evidence in the hearing record, the Administrative Law Judge makes the following:

FINDINGS OF FACT

I. The Applicant

1. Nobles 2 Power Partners, LLC, is a wholly owned subsidiary of Tenaska Wind Holdings II, LLC. Tenaska Wind Holdings II, LLC is an affiliate of Tenaska, Inc. (Tenaska).¹

2. Tenaska is based in Omaha, Nebraska. Tenaska and its affiliates have developed 10,000 megawatts MW of natural gas-fueled and renewable power generating facilities and currently manage operations for 7,000 MW of power generating facilities.² Tenaska presently has wind development projects across the Midwest.³

3. Nobles 2 does not have ownership or financial interests in any other large wind energy conversion systems (LWECS) in Minnesota.⁴

II. Site Permit Application and Related Procedural Background

4. On October 13, 2017, Nobles 2 filed a Site Permit Application (SP Application) with the Commission for the Project.⁵

¹ Exhibit (Ex.) Nobles-7 at 1 (Revised Site Permit (SP) Application).

² *Id.* at 2.

³ *Id.*

⁴ *Id.* at 6.

5. On October 26, 2017, the Commission issued a Notice of Comment Period on SP Application Completeness, with the initial comment period closing on November 16, 2017, and the reply comment period closing November 27, 2017. The Notice requested comments on whether the SP Application was complete within the meaning of the Commission's rules; whether any contested issues of fact existed; whether the SP Application should be referred to the Office of Administrative Hearings for a contested case proceeding; and whether there are other issues or concerns.⁶

6. On November 16, 2017, DOC-EERA filed comments recommending that the Commission accept the SP Application as complete. DOC-EERA recommended that the SP Application be processed jointly with Applicant's Application for a Certificate of Need (CN Application). DOC-EERA also recommended the Commission make a determination concerning Applicant's use of trade secret data, due to concerns about whether disclosure of certain data claimed to be trade secret data would be in the public interest.⁷

7. On November 27, 2017, Nobles 2 filed reply comments agreeing with the DOC-EERA's recommendation that the SP Application and Certificate of Need Application be processed jointly. Nobles 2 acknowledged the DOC-EERA's comments on certain cost data marked as trade secret in the SP Application and agreed to file a revised SP Application including, as public, cost data previously withheld as trade secret.⁸

8. On December 1, 2017, Nobles 2 filed a Revised SP Application that included the cost information it previously withheld.⁹

9. On December 1, 2017, the Commission issued a Notice of Commission Meeting scheduling a meeting for December 14, 2017, to address whether to accept the SP Application as substantially complete and whether the Commission should direct the use of the informal review process.¹⁰

10. On December 14, 2017, the Commission met to consider the items identified in the Notice of Commission Meeting.¹¹ The Commission voted to: accept the SP Application as substantially complete; request that an administrative law judge from the Office of Administrative Hearings (OAH) preside over the public hearing; vary Minn. R. 7854.0600, subp. 1, and Minn. R. 7854.0800, subp. 1, to extend the timelines

⁵ Site Permit Application (Oct. 13, 2017) (eDocket No. 201710-136496-07); Ex. Nobles-4 (Appendices, Maps and Affidavit of Service to Site Permit Application).

⁶ NOTICE OF COMMENT PERIOD (Oct. 26, 2017) (eDocket No. 201710-136852-01).

⁷ Comments and Recommendations of the DOC-EERA (Nov. 16, 2017) (eDocket No. 201711-137456-01(SP)).

⁸ Ex. Nobles-6 (Reply Comments).

⁹ Ex. Nobles-7 at 96 (Revised SP Application); Site Permit Application at 96 (Oct. 13, 2017) (eDocket No. 201710-136496-07).

¹⁰ NOTICE OF COMMISSION MEETING (Dec. 1, 2017) (eDocket No. 201712-137848-05).

¹¹ MINUTES – DECEMBER 14, 2017 AGENDA (May 30, 2018) (eDocket No. 20185-143440-03).

contained in those rules; grant Applicant's request for a variance to Minn. R. 7854.0600, subp. 3; and addressed various other administrative matters.¹²

11. On December 28, 2017, Applicant filed updated maps 2A and 2B, which reflect the addition of landowners participating in the Project via wind rights easements.¹³

12. On January 4, 2018, the Commission issued an Order Accepting Application, Establishing Procedural Framework, and Varying Rules.¹⁴

13. On January 25, 2018, the Commission issued a Notice of Public Information and Environmental Report Scoping Meeting scheduling a meeting on February 15, 2018, in Wilmont, Minnesota and announcing that written comments would be accepted through March 2, 2018.¹⁵ On February 12, 2018, the Commission issued a Notice Rescheduling the Public Information and Environmental Report Scoping Meeting for February 28, 2018, in Wilmont, Minnesota and announcing that written comments would be accepted through March 20, 2018.¹⁶

14. A notice regarding the rescheduled Public Information and Environmental Report Scoping Meeting was sent by direct mail to landowners and government officials and was also published in the *Daily Globe* and *Nobles County Review*.¹⁷ Nobles 2 also placed copies of the SP Application and CN Application in the Nobles County Public Library, Worthington Location.¹⁸

15. On February 28, 2018, the Commission and DOC-EERA Staff held a public meeting in Wilmont, Minnesota to solicit comments on the scope of the Environmental Report and Draft Site Permit.¹⁹

16. On March 21, 2018, the Administrative Law Judge issued a Notice of Prehearing Conference setting a prehearing conference to take place on April 19, 2018.²⁰

17. On March 29, 2018, the DOC-EERA filed its Environmental Report Scoping Decision.²¹ On April 6, 2018, the DOC-EERA filed a Notice of Environmental Report Scoping Decision.²²

¹² *Id.* at 4-6.

¹³ Ex. Nobles-8 (Revised Map 2A and Map 2B).

¹⁴ ORDER ACCEPTING APPLICATION, ESTABLISHING PROCEDURAL FRAMEWORK, AND VARYING RULES (Jan. 4, 2018) (eDocket No. 20181-138632-01).

¹⁵ NOTICE OF PUBLIC INFORMATION AND ENVIRONMENTAL REPORT SCOPING MEETING (Jan. 25, 2018) (eDocket No. 20181-139331-02).

¹⁶ Ex. EERA-1 (Notice of Rescheduled Public Information and Scoping Meeting).

¹⁷ Ex. Nobles-10 (Cover Letter with Affidavit of Mailing, Letter to Landowners and Affidavits of Publication).

¹⁸ *Id.*

¹⁹ Ex. EERA-3 (Public Record of Information and Scoping Meeting).

²⁰ NOTICE OF PREHEARING CONFERENCE (Mar. 21, 2018) (eDocket No. 20183-141210-01).

²¹ Ex. EERA-4 (Environmental Report Scoping Decision).

18. On April 16, 2018, the DOC-EERA filed comments and recommendations on a Draft Site Permit, as well as a Preliminary Draft Site Permit.²³

19. On April 19, 2018, the Administrative Law Judge held a prehearing conference at the Commission, and on April 20, 2018, the Administrative Law Judge issued a Scheduling Order setting forth the procedural schedule for the proceedings.²⁴

20. On May 4, 2018, the Commission issued a Notice of Commission Meeting scheduling a meeting on May 17, 2018, to consider whether to issue a preliminary Draft Site Permit for the Project.²⁵

21. On May 25, 2018, the Commission issued an Order issuing the Draft Site Permit, attaching a copy of the Draft Site Permit to the Order. The Order also requested that DOC-EERA make a supplemental filing containing an evaluation and description of the disposition of certain issues raised by state agencies, Nobles County, and in public comments.²⁶

22. On May 29, 2018, the Commission issued a Notice of Joint Public Hearings and Draft Site Permit Availability.²⁷ The Notice provided: (a) the location and date of the public hearing; (b) a description of the proposed Project; (c) a deadline for public comments on the Application and Draft Site Permit; (d) a description of the Commission's Site Permit review process; and (e) identification of the public advisor. The Notice indicated that the hearing would address the SP Application and CN Application. Topics for public comment included: (1) should the Commission issue a Certificate of Need and Site Permit for the Project; (2) is the proposed Project needed and in the public interest; (3) what are the costs and benefits of the proposed project; (4) what are the human and environmental impacts of the Project; and (5) any other project-related issues or concerns.²⁸ The Notice was published in the *Nobles County Review* and the *Daily Globe* newspapers on June 6, 2018.²⁹

23. On June 8, 2018, the DOC-EERA filed its Supplemental Response to Public Comments, as requested by the Commission.³⁰

24. On June 15, 2018, Nobles 2 filed the direct testimony of Justin Vala, Scott Seier, and Joseph Finocchiaro.³¹

²² Notice of Environmental Report Scoping Decision (Apr. 6, 2018) (eDocket No. 20184-141729-01).

²³ Ex. EERA-5 (Comments and Recommendations on Draft Site Permit).

²⁴ SCHEDULING ORDER (Apr. 20, 2018) (eDocket No. 20184-142156-01).

²⁵ NOTICE OF COMMISSION MEETING-MAY 17, 2018 AGENDA (May 4, 2018) (eDocket No. 20185-142761-03).

²⁶ ORDER (May 25, 2018) (eDocket No. 20185-143331-01).

²⁷ NOTICE OF JOINT PUBLIC HEARINGS AND DRAFT SITE PERMIT AVAILABILITY (May 29, 2018) (eDocket No. 20185-143368-01).

²⁸ *Id.*

²⁹ Ex. Nobles-15 (Affidavits of Publication).

³⁰ Ex. EERA-11 (Supplemental Comments).

³¹ Ex. Nobles-12 (Seier Direct); Ex. Nobles-13 (Vala Direct); Ex. Nobles-14 (Finocchiaro Direct).

25. On June 20, 2018, the Administrative Law Judge presided over joint public hearings on the SP Application and the CN Application for the Project in Wilmont, Minnesota. Approximately 34 members of the public attended the public hearings held at 1:00 p.m. and 6:00 p.m. on June 20, 2018.³² Commission Staff, DOC-EERA Staff, and representatives from Nobles 2 were present. Justin Vala, Scott Seier, and Joseph Finocchiaro spoke on behalf of Nobles 2.³³ Approximately 10 members of the public spoke at the hearings.³⁴

26. In addition, several written comments were received before the close of the initial comment period on July 11, 2018.³⁵

27. One comment was received on July 19, 2018, after the close of the comment period.³⁶ The comment was dated June 10, 2018.³⁷ Notwithstanding that this comment was received after the comment period ended, the Administrative Law Judge has considered this comment in connection with this recommendation.

28. On July 11, 2018, Nobles 2 submitted Proposed Findings of Fact, Conclusions of Law, and Recommendations.³⁸

29. On July 25, 2018, the DOC-EERA filed its Comments and Recommendations, along with its suggested edits to Nobles 2's Proposed Findings of Fact, Conclusions of Law, and Recommendations.³⁹ The DOC-EERA agreed with many of Nobles 2's proposed findings of fact.⁴⁰

30. On July 25, 2018, Nobles 2 filed post-hearing comments responding to comments received regarding the Project.⁴¹ Nobles 2's post-hearing comments

³² Public Hearing Sign-In Sheets – 1 p.m. Hearing on June 20, 2018 (eDocket No. 20186-144257-01); Public Hearing Sign-In Sheets – 6 p.m. Hearing on June 20, 2018 (eDocket No. 20186-144257-03).

³³ Public Hearing Transcript (Tr.) (Vol. I) (June 20, 2018 1:00 PM); Public Hearing Tr. (Vol. II) (June 20, 2018, 6:00 p.m.).

³⁴ Public Hearing Sign-In Sheets – 1 p.m. Hearing on June 20, 2018 (eDocket No. 20186-144257-01); Public Hearing Sign-In Sheets – 6 p.m. Hearing on June 20, 2018 (eDocket No. 20186-144257-03).

³⁵ See, e.g., Public Comments Batch 1 (June 12, 2018) (eDocket No. 20186-143743-01); Public Comments Batch 2 (June 21, 2018) (eDocket No. 20186-144033-01); Public Comments Batch 3 (June 20, 2018) (eDocket No. 20186-144014-02); Comment by Minnesota State Energy Center of Excellence (July 2, 2018) (eDocket No. 20187-144443-02); Comment by State Senator Julie Rosen (July 2, 2018) (eDocket No. 20187-144440-02); Comment by Mankato Building & Construction Trades Council (Mankato Building Trades) (July 11, 2018) (eDockets No. 2018-7-144729-01); Comment by Minnesota Department of Natural Resources (MnDNR) (July 11, 2018) (eDocket No. 20187-144723-01).

³⁶ Comment of State Senator Bill Weber and State Representative Joe Schomacker (July 19, 2018) (eDocket No. 20187-145043-01).

³⁷ *Id.*

³⁸ Nobles 2 Power Partners LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations (July 11, 2018) (eDocket No. 20187-144725-02).

³⁹ DOC-EERA Comments and Recommendations, EERA Edits of Nobles 2 Power Partners LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations (July 25, 2018) (eDocket No. 20187-145216-01).

⁴⁰ *Id.*

⁴¹ Nobles 2 Power Partners, LLC's Post-Hearing Comments (July 25, 2018) (eDocket No. 20187-145201-02).

addressed concerns raised by the MnDNR, and indicated Nobles 2 would comply with MnDNR's comments, discussed below, regarding native prairie protection and revision of Nobles 2's Bird and Bat Conservation Strategy.⁴² On the same date, Nobles 2 filed its Revised Bird and Bat Conservation Strategy (BBCS).⁴³

III. Certificate of Need Application and Related Procedural Background

31. On April 5, 2016, Nobles 2 filed a Request for Exemption from Certain Certificate of Need Application Content Requirements with the Commission requesting exemptions from certain Certificate of Need data requirements.⁴⁴

32. On May 15, 2016, the Department of Commerce-Division of Energy Resources (DOC-DER) filed comments analyzing Nobles 2's exemption requests.⁴⁵

33. On May 25, 2016, the Commission issued an order granting exemptions from some of the information requirements under Minn. R. ch. 7849.⁴⁶

34. On October 13, 2017, Nobles 2 filed a CN Application for the Project along with a summary of filing.⁴⁷

35. On October 23, 2017, the DOC-DER filed comments and recommendations on the CN Application, recommending that the Commission find the application complete and recommending that the Commission use its comment process to evaluate the matter.⁴⁸

36. On October 26, 2017, the Commission issued a Notice of Comment Period regarding the completeness of the CN Application, asking for comments regarding whether the CN Application contained required information and whether the Commission should find it complete, the procedural treatment the Commission should direct for review of the matter, and any other issues or concerns. Initial comments were accepted through November 16, 2017, and reply comments through November 27, 2017.⁴⁹

37. On November 27, 2017, Nobles 2 provided reply comments expressing agreement with the DOC-DER's recommendations that the Commission find the

⁴² *Id.*

⁴³ Revised Bird and Bat Conservation Strategy (July 25, 2018) (eDocket No. 20187-145201-03); Revised Bird and Bat Conservation Strategy Part 2 (July 25, 2018) (eDocket No. 20187-145201-04).

⁴⁴ Ex. Nobles-1 (Request for Exemption).

⁴⁵ DOC-DER Comments (Apr. 15, 2018) (eDocket No. 20164-120137-01).

⁴⁶ ORDER (May 25, 2016) (eDocket No. 20165-121609-01).

⁴⁷ Ex. Nobles-2 (CN Application, Appendices, Figures, Affidavit of Service, and Summary of Filing); Ex. Nobles-3 (Trade Secret Appendices A and C to CN Application).

⁴⁸ DOC-DER Comments (Oct. 23, 2017) (eDocket No. 201710-136692-01).

⁴⁹ NOTICE OF COMMENT PERIOD (Oct. 26, 2017) (eDocket No. 201710-136851-01).

application complete and review the application using the Commission's informal comment and reply process.⁵⁰

38. On December 1, 2017, the Commission issued a Notice of Commission Meeting scheduling a meeting on December 14, 2017, to consider whether to accept the Application as complete, and whether to direct the use of the informal review process.⁵¹

39. On December 14, 2017, the Commission voted to accept the CN Application as complete; direct that the CN Application be reviewed using the informal review process; declare that the public hearing for the CN Application proceeding would be held jointly with the public hearing for the SP Application in docket IP-6964/WS17-597; and to vary Minn. R. 7849.0200, subp. 5, and Minn. R. 7849.1400, subp. 3, to extend the timelines contained in those rules.⁵²

40. On January 4, 2018, the Commission issued an Order Accepting Application, Directing Use of Informal Review Process, and Varying Timeframes. The Order requested that the Administrative Law Judge summarize comments from the public hearing related to the question of the need for the Project.⁵³

41. On January 25, 2018, the Commission issued a Notice of Public Information and Environmental Report Scoping Meeting scheduling a meeting on February 15, 2018, in Wilmont, Minnesota, and announcing that written comments would be accepted through March 2, 2018.⁵⁴ The meeting was rescheduled, and on February 12, 2018, the Commission issued a Notice Rescheduling the Public Information and Environmental Report Scoping Meeting for February 28, 2018, in Wilmont, Minnesota and announcing that written comments would be accepted through March 20, 2018.⁵⁵

42. On March 29, 2018, DOC-EERA filed the Environmental Report Scoping Decision.⁵⁶ On April 6, 2018, DOC-EERA filed a Notice of Environmental Report Scoping Decision.⁵⁷

43. On April 4, 2018, Nobles 2 notified the Commission that it had complied with the notice requirements of Minn. R. parts 7854.0900 and 7849.1400, by providing direct mail notice and newspaper publication relating to the Notice Rescheduling Public Information and Environmental Report Scoping Meeting. Nobles 2 filed an Affidavit of Mailing related to documents sent to landowners and government officials and the

⁵⁰ Ex. Nobles-6 (Reply Comments).

⁵¹ NOTICE OF COMMISSION MEETING (Dec. 1, 2017) (eDocket No. 201712-137848-03).

⁵² MINUTES – DECEMBER 14, 2017 AGENDA (May 30, 2018) (eDocket No. 20185-143440-06).

⁵³ ORDER ACCEPTING APPLICATION, DIRECTING USE OF INFORMAL REVIEW PROCESS, AND VARYING TIMEFRAMES (Jan. 4, 2018) (eDocket No. 20181-138636-01).

⁵⁴ NOTICE OF PUBLIC INFORMATION AND ENVIRONMENTAL REPORT SCOPING MEETING (Jan. 25, 2018) (eDocket No. 20181-139331-01)

⁵⁵ Ex. EERA-1 (Notice of Rescheduled Public Information and Scoping Meeting).

⁵⁶ Ex. EERA-4 (Environmental Report Scoping Decision).

⁵⁷ Notice of Environmental Report Scoping Decision (Apr. 6, 2018) (eDocket No. 20184-141729-01).

service list. Nobles 2 also documented that it published the Notice Rescheduling Public Information and Environmental Report Scoping Meeting in the *Nobles County Review* and the *Daily Globe*.⁵⁸

44. On May 10, 2018, the Commission issued a Notice of Comment Period establishing that initial written comments would be accepted until July 2, 2018, and that reply comments could be submitted until July 11, 2018. The Commission directed that comments should address whether any contested issues of fact existed with respect to the representations made in the CN Application; whether the Commission should grant a certificate of need for the Project; and whether there were any other issues or concerns related to this matter.⁵⁹

45. On May 29, 2018, the Commission issued a Notice of Joint Public Hearings and Draft Site Permit Availability.⁶⁰ The Notice provided: (a) the location and date of the public hearing; (b) a description of the proposed Project; (c) a deadline for public comments; (d) a description of the Commission's site permit review process; and (e) identification of the public advisor. The Notice indicated that the hearing would address the SP and CN Applications. Topics for public comment included: (1) should the Commission issue a Certificate of Need and Site Permit for the Project; (2) is the proposed Project needed and in the public interest; (3) what are the costs and benefits of the proposed Project; (4) what are the human and environmental impacts of the Project; and (5) any other project-related issues or concerns.⁶¹

46. The Notice of Joint Public Hearings and Draft Site Permit Availability was published in the *Nobles County Review* and the *Daily Globe* newspapers on June 6, 2018.⁶²

47. On May 31, 2018, the DOC-EERA issued the Environmental Report (ER) for the Project.⁶³ A Notice of Availability of Environmental Report,⁶⁴ was mailed to persons requesting notice and public agencies with authority to permit or approve the Project.⁶⁵ Notice of the availability of the ER was also published in the *EQB Monitor*.⁶⁶

48. On June 27, 2018, the DOC-DER submitted comments analyzing the Project and recommending that the Commission determine that Nobles 2 has shown that: 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; a more reasonable and prudent

⁵⁸ Ex. Nobles-10 (Cover Letter with Affidavit of Mailing, Letter to Landowners, and Affidavits of Publication).

⁵⁹ NOTICE OF COMMENT PERIOD (May 10, 2018) (eDocket No. 20185-142927-01).

⁶⁰ NOTICE OF JOINT PUBLIC HEARINGS AND DRAFT SITE PERMIT AVAILABILITY (May 29, 2018) (eDocket No. 20185-143368-01).

⁶¹ *Id.*

⁶² Ex. Nobles-15 (Affidavits of Publication).

⁶³ Ex. EERA-6 (ER).

⁶⁴ Ex. EERA-8 (Notice of Availability of Environmental Report).

⁶⁵ Ex. EERA-8 (Certificate of Service); Ex. EERA-9 (Affidavit of Service by Mail).

⁶⁶ Ex. EERA-10 (EQB Monitor Notice of Environmental Report Availability).

alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record; and 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. DOC-DER recommended that if the Commission finds, after consideration of the Environmental Report, that the proposed facility “will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health,” the Commission should issue a CN for the Project.⁶⁷

49. On June 20, 2018, joint public hearings on the SP Application and the CN Application were held in Wilmont, Minnesota.

IV. General Description of the Project

50. The proposed Project consists of between 65 and 82 wind turbines, depending on the configuration selected, yielding a total nameplate capacity of up to 260 MW in Nobles County, Minnesota. The proposed Project also includes associated facilities.⁶⁸

51. Nobles 2 is considering turbine models with nameplate capacities ranging from 2.0 MW to 4.2 MW. Nobles 2 selected the Vestas V136-3.6 MW as the primary wind turbine model for the Project.⁶⁹ If Nobles 2 determines that the technology is economical and commercially proven, however, Nobles 2 may elect to utilize Vestas V136-3.45 MW, V136-4.0 MW, or V136-4.2 MW turbines instead.⁷⁰ The Project will also include 10 to 21 Vestas V110-2.0 MW wind turbines in order to qualify for the Production Tax Credit (PTC).⁷¹ Nobles 2 will determine the final number of Vestas V110-2.0 MW turbines to be installed based upon PTC requirements, turbine availability, and other economic considerations.⁷² As result, the number of turbines installed could range from 65 to 82.⁷³ For the primary configuration (64 V136-3.6 and 10 V110-2.0 turbines), Nobles 2 proposed a total of 12 alternate turbines, for a total of 86 turbine sites.⁷⁴

52. Nobles states that Vestas, the wind turbine manufacturer, has indicated that it offers the V136-3.6 MW turbine with a larger generator and other changes that increase the nameplate capacity to 4.0 or 4.2 MW, without increasing the size of the

⁶⁷ DOC-DER Comments at 17 (June 27, 2018) (eDocket No. 20186-144230-01).

⁶⁸ Ex. Nobles-7 at 5-6 (Revised SP Application).

⁶⁹ *Id.* at 5.

⁷⁰ *Id.*

⁷¹ Nobles 2 purchased Vestas V110-2.0 MW turbines as a “safe harbor” to qualify for the PTC and, accordingly, will need to incorporate at least ten (10) Vestas V110-2.0 MW turbines into the Project to satisfy PTC requirements. Nobles 2 will use the V110-2.0 MW turbine in combination with the V136-3.6 MW turbine. *Id.* at 6.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

turbine.⁷⁵ Nobles 2 is evaluating the potential use of these turbines. Nobles 2 may use these turbines if they are commercially available prior to construction and if the cost of such turbines does not exceed the benefits realized by increasing the nameplate capacity of turbines (for example, the Project could be constructed with fewer turbine sites).⁷⁶

53. The turbines Nobles 2 is considering are three bladed, active yaw, and active aerodynamic control regulated wind turbine generators with power/torque control capabilities.⁷⁷ The wind turbines consist of a nacelle, hub, blades, tower, and foundation.⁷⁸ The rotor consists of three blades mounted to a rotor hub.⁷⁹ The hub is attached to the nacelle, which houses the gearbox, generator, brake, cooling system, and other electrical and mechanical systems.⁸⁰ Generator step-up transformers are located within the nacelle.⁸¹ Each turbine is equipped with a wind speed and direction sensor that communicates to the turbine's control system to signal when sufficient winds are present for operation.⁸² Turbines feature variable-speed control and independent blade pitch to enhance aerodynamic efficiency.⁸³

54. The turbine models under consideration have hub heights ranging from 80 meters to 82 meters, have rotor diameters (RD) ranging from 110 meters to 136 meters, and will be secured by a concrete foundation, the above-ground portion of which will be approximately 16 feet wide at the tower base.⁸⁴

55. All proposed turbine models will be equipped with Supervisory Control and Data Acquisition (SCADA) communication technology to control and monitor the Project.⁸⁵ The SCADA communications system permits automatic, independent operation and remote supervision of each turbine and the wind facility as a whole, allowing continuous and simultaneous control of the wind turbines.⁸⁶

56. The Project also includes construction and/or operation of the following associated facilities:

- a. gravel access roads and improvements to existing roads;
- b. underground and/or aboveground electrical collector lines and feeder lines;

⁷⁵ *Id.*

⁷⁶ *Id.* at 6.

⁷⁷ *Id.* at 8.

⁷⁸ Ex. EERA-6 at 5 (ER).

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ Ex. Nobles-7 at 10 (Revised SP Application).

⁸² *Id.* at 9.

⁸³ *Id.*

⁸⁴ *Id.*; Ex. EERA-6 at 5 (ER).

⁸⁵ Ex. Nobles-7 at 9, 95 (Revised SP Application).

⁸⁶ *Id.*

- c. an operations and maintenance (O&M) facility;
- d. a Project substation facility and interconnection facility;
- e. up to six permanent meteorological (MET) towers; and
- f. a temporary batch plant and staging/laydown area for construction of the Project.⁸⁷

57. The physical Point of Interconnection (POI) for the Project, which is the location where the electricity generated by the Project enters the transmission grid, is anticipated to be the Xcel Nobles-Fenton 115kV transmission line, located in close proximity to the planned Project substation.⁸⁸ As a result, Nobles 2 does not plan to construct additional transmission lines for the Project.⁸⁹

58. The Project will include a wind access buffer of five RDs in the prevailing wind direction, and three RDs in the non-prevailing wind direction, from other turbines, non-participating parcels, and state and federal conservation lands; a noise setback meeting the noise standards in Minn. R. ch. 7030; and a minimum setback of 1,600 feet from residences and 1 times the turbine height from road rights-of-way.⁹⁰

59. Nobles 2 estimates the total installed capital cost of the Project will be between \$350 million and \$400 million, including wind turbines, associated electrical and communications systems, and site facilities.⁹¹ The final installed capital cost of the Project depends on site conditions, including ease of access, geologic and hydrologic conditions, and the final turbine layout.⁹² Nobles 2 estimates that annual ongoing operating and maintenance costs will average \$10 million per year (calculated in real 2019 dollars) over 20 years.⁹³

V. Site Location and Characteristics

60. The Project will be constructed in Nobles County, in southwestern Minnesota, and in and around Leota, Wilmont, Bloom, Lismore, Larkin, and Summit Lake Townships.⁹⁴

61. The Project area includes 42,547 acres, or 66 square miles, of mostly agricultural land.⁹⁵ As of June 8, 2018, Nobles 2 had secured approximately 33,991

⁸⁷ *Id.* at 5, 10-12.

⁸⁸ *Id.* at 5.

⁸⁹ *Id.* at 11.

⁹⁰ *Id.* at 7.

⁹¹ *Id.* at 96.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.* at 4. At one time the proposed Project area included land within Murray County, Minnesota, but that land is no longer within the boundaries for the Project. *Id.* at 13.

⁹⁵ *Id.* at 4-5.

acres under leases or wind easements for the Project.⁹⁶ The Project's aboveground facilities will occupy less than one percent of the Project area.⁹⁷

62. The Project area is in a rural and agricultural region.⁹⁸ The population of Nobles County is 21,729.⁹⁹ Wilmont Township, where the Project will be centered, has a population of 187 and a population density of 5.27 people per square mile.¹⁰⁰ The townships within the area of the Project have a combined total population of 1,441.¹⁰¹

VI. Wind Resource Considerations

63. Nobles 2 selected this location for the Project because the area lies within a gap that had not yet been developed for other wind farms along the Buffalo Ridge, with good wind resources.¹⁰²

64. Based on the National Renewable Energy Laboratory's Wind Integration National Dataset, predicted long-term mean annual wind speeds near the Project Area at 80 meters above ground-level range from 7.5 to 8.5 meters per second (m/s).¹⁰³

65. Nobles 2 began a wind resource assessment in 2014.¹⁰⁴ The first temporary MET tower monitoring weather data in the Project Area was installed in October 2014, and operated for 18 months, until April 2016.¹⁰⁵ Nobles 2 installed five additional MET towers at the site in 2016.¹⁰⁶ The average annual wind speed is estimated to be 8.52 m/s at an 80-meter hub height.¹⁰⁷

66. Wind speeds are subject to some seasonal variation, with the highest wind speeds in April at 9.6 m/s and lowest in August at 6.9 m/s.¹⁰⁸ The prevailing wind directions in the Project Area are generally from the northwest in the winter and the south in the summer.¹⁰⁹

67. Nobles 2 estimates that the Project will have an annual average production of between approximately 930,000 and 1,100,000 MW hours, depending on turbine model and type used.¹¹⁰ The estimate net capacity factor is between

⁹⁶ Ex. Nobles-12 at 6 (Seier Direct).

⁹⁷ Ex. Nobles-7 at 5 (Revised SP Application).

⁹⁸ Ex. EERA-6 at 50 (ER).

⁹⁹ *Id.*

¹⁰⁰ *Id.* at 51.

¹⁰¹ *Id.*

¹⁰² Ex. 12 at 3 (Seier Direct); Public Hearing Tr. (Vol. I) at 45 (June 20, 2018) (Seier).

¹⁰³ Ex. Nobles-7 at 80 (Revised SP Application).

¹⁰⁴ *Id.* at 81.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 82.

¹⁰⁹ *Id.* at 87.

¹¹⁰ *Id.* at 96.

approximately 42.5 percent and 47 percent.¹¹¹ Nobles 2 will analyze energy projections further after the final design and layout of the Project has been completed.¹¹²

VII. Wind Rights and Easement/Lease Agreements

68. Nobles 2 has obtained sufficient land lease and wind easements/setback easement agreements to build the Project.¹¹³ The secured easement agreements ensure access for construction and operation of the Project and the obligations and responsibilities of landowners and Nobles 2 during the implementation and operation of the Project.¹¹⁴

69. Nobles 2 has secured leases or wind easements on approximately 33,991 acres, of the approximately 42,550 acres within the Project area, or 80 percent of the Project area.¹¹⁵ The Project lease agreements provide for lease terms up to 380 months.¹¹⁶

70. Project facilities will be sited on leased land, and the current leasehold is sufficient to accommodate the proposed up to 260 MW Project, including the proposed facilities, required buffers, and turbine placement flexibility needed to avoid natural resources, homes, and other sensitive features.¹¹⁷

71. The Project layout closely adheres to the wind energy conversion facility siting criteria outlined in the Commission's Order Establishing General Wind Permit Standards, Docket No. E,G999/M-07-1102, applicable local government ordinances, discussions with the Minnesota Department of Natural Resources (MnDNR), U.S. Fish and Wildlife Service (USFWS), and industry standard siting practices. Turbine siting and spacing is further dictated by the selected turbine model, setback requirements, proximity to existing residences, interconnection with available transmission, and proximity to natural resources.¹¹⁸

VIII. Project Schedule

72. Nobles 2 anticipates construction of the Project will begin as early as the third quarter of 2018.¹¹⁹ Nobles 2 anticipates constructing the Project on a schedule that results in an in-service date of the third or fourth quarter of 2019.¹²⁰

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.* at 5.

¹¹⁴ *Id.* at 13.

¹¹⁵ Ex. Nobles-12 at 6 (Seier Direct).

¹¹⁶ *Id.*

¹¹⁷ *Id.*; Ex. Nobles-7 at 5, 12-13 (Revised SP Application).

¹¹⁸ Ex. Nobles-7 at 7 (Revised SP Application).

¹¹⁹ *Id.* at 1.

¹²⁰ *Id.* at 5.

IX. Permittee

73. The Permittee for the Project is Nobles 2.

74. Nobles 2 anticipates overseeing and managing all aspects of Project execution, including, but not limited to, design, solicitation and award of construction contracts; construction; construction monitoring and oversight; third party quality assurance; final commissioning and acceptance; and operations and maintenance activities once the Project commences commercial operations. Nobles 2 intends to be the long-term owner and operator of the Project, but indicates that it reserves the right to sell or assign the Project to another qualified entity before, during, or after the Project's construction.¹²¹

75. On May 10, 2017, Nobles 2 entered into a Power Purchase Agreement (PPA) with Minnesota Power (MP) for up to 250 MW of the energy to be generated by the Project.¹²² Nobles 2 requests approval to construct up to 10 MW of additional nameplate capacity to, in part, account for the terms of the PPA with MP, which defines Installed Capacity as 247 to 253 MWs and also to provide a hedge against expected and unexpected disruptions in turbine availability.¹²³

X. Summary of Public Comments

A. Public Information and Environmental Scoping Meeting

76. A public information and environmental scoping meeting was held on February 28, 2018, at the Wilmont Community Center in Wilmont, Minnesota.

77. Mike Kaluzniak, staff member for the Commission, was the moderator for the meeting and presented information on the Commission's process.¹²⁴ Scott Seier with Nobles 2 Power Partners presented information on the Project.¹²⁵ Jamie MacAlister explained the Department's role in the process.¹²⁶

78. Approximately 75 people attended the public information and environmental scoping meeting.¹²⁷ Five people asked questions and/or made comments on the record during the meeting.¹²⁸

79. Nate O'Reilly asked how Tenaska would ensure that construction jobs created by the Project were filled by Minnesota workers. Mr. O'Reilly is concerned that many developers and contractors have used a largely out-of-state work force on other wind projects. Mr. O'Reilly requested that Tenaska make a commitment to hiring

¹²¹ *Id.* at 1, n.1.

¹²² *See id.* at 2.

¹²³ *Id.* at 2, n.3.

¹²⁴ Ex. EERA-3 at 4-8 (Public Record of Information and Scoping Meeting) (Kaluzniak).

¹²⁵ *Id.* at 8-21 (Seier).

¹²⁶ *Id.* at 21-29 (MacAlister).

¹²⁷ Ex. EERA-4 at 1 (Environmental Report Scoping Decision).

¹²⁸ Ex. EERA-3 at 29-38 (Public Record of Information and Scoping Meeting).

Minnesota workers and asked the Commission to consider the commitment as a condition of the permit.¹²⁹

80. Stacy Karels, a member of Laborers' Local 563, commented on the economic benefits that construction of the Project will have on the area, including by providing well-paying jobs.¹³⁰

81. Eric Joens, a resident of Bloom Township, noted that prior wind projects have interfered with wireless and broadband access in the community. He asked the Commission to consider the loss of cellular and broadband signal that could result from the Project. Mr. Joens also asked the Commission to consider installation of a repeater tower on the east side of Bloom Township.¹³¹

82. Lisa Onken commented that the loss of cellular and broadband signal would impact local residents who work out of home offices. Ms. Onken commented that recent efforts to increase broadband access to greater Minnesota could be compromised by the installation of wind towers. Ms. Onken also noted that her family still uses an aerial antenna for television and she does not want her reception to be impacted by wind tower development.¹³²

83. Roger Krueger indicated he supports installation of larger wind towers because they are less likely to be replaced in the future, resulting in less disruption for residents. Mr. Krueger commented that there are likely to be many construction projects in the future so construction would be a good career choice for young people in the area.¹³³

B. Written Comments Following the Public Information and Environmental Scoping Meeting

84. Following the Public Information and Environmental Scoping Meeting, comments regarding the Project were filed by individuals, companies, organizations, and government entities.¹³⁴

85. Betty Brake submitted a comment proposing an alternate route for power lines for the Project in Section 24 of Wilmont Township because the proposed lines run through 10 acres that could fill with standing water if heavy rains occur.¹³⁵

¹²⁹ *Id.* at 29-31 (O'Reilly).

¹³⁰ *Id.* at 31 (Karels).

¹³¹ *Id.* at 31-33 (Joens).

¹³² *Id.* at 34-35 (Onken).

¹³³ *Id.* at 35-38 (Krueger).

¹³⁴ The MnDNR and the Mankato Building & Construction Trades Council (Mankato Building Trades) submitted comments following the Public Information and Environmental Scoping Meeting and other comments after the public hearings. All comments by the MnDNR and Mankato Building Trades are discussed in the Other Written Comments section below.

¹³⁵ Comment of Betty Brake (Mar. 22, 2018) (eDocket No. 20183-141265-02).

86. Gerald and Linda Fuerstenberg submitted a comment expressing their concerns with the Project.¹³⁶ The Fuerstenbergs are concerned that the proposed location of the wires would land lock their property due to rules related to water runoff.¹³⁷ The Fuerstenbergs also stated that an alternative route would be shorter.¹³⁸ They also noted that a hill in Section 4 of Wilmont Township contains rare wildflowers and grasses and they asked that these not be disturbed.¹³⁹

87. Bill Loonan, Manager of Lismore Cooperative Telephone Company (LCTC), submitted a comment regarding wireless internet interference from wind turbines.¹⁴⁰ Mr. Loonan commented that LCTC was in the process of installing a fiber/wireless hybrid internet system and erecting a repeater tower in Section 5 of Summit Lake Township.¹⁴¹ Mr. Loonan stated that LCTC did not anticipate interference issues in connection with the Project, noting that LCTC has never had a complaint that could be traced back to turbine interference.¹⁴²

88. The Minnesota Department of Transportation (MnDOT) submitted a letter regarding the Project.¹⁴³ MnDOT stated that the draft site permit should include language specifying that Nobles 2 shall obtain all relevant permits or authorizations relating to electric cables or feeder cables that may be placed in a public right of way.¹⁴⁴ MnDOT raised a number of concerns about the Project, including that: road construction could potentially impact delivery of wind turbines, change the existing right-of-way in some areas, and impact hauling over oversize/overweight loads; Applicant should obtain permits for locations in which its facilities intersected with the trunk highway system; there could be impacts on MnDOT's ARMER microwave paths; and Applicant should work with MnDOT related to the Project.¹⁴⁵

89. The Minnesota Pollution Control Agency (MPCA) submitted a letter addressing matters within its regulatory responsibilities.¹⁴⁶ The MPCA noted that it seemed unlikely that there would be noise-related concerns with the Project. The MPCA stated, however, that Nobles 2 had not included L10 or L90 values or dB(C) measurements or calculations in its submissions, and the MPCA advised Nobles 2 determine whether this data was available to submit the data for public viewing.¹⁴⁷ The MPCA also noted that the Environmental Assessment Worksheet did not state whether any portion of the Project will drain to surface waters listed as impaired and did not state the number of impervious surfaces that would be created by the Project.¹⁴⁸

¹³⁶ Comment of Gerald and Linda Fuerstenberg (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹³⁷ *Id.*

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ Comment of Bill Loonan (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ Comment of MnDOT (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ Comment of the MPCA (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁴⁷ *Id.* at 15-16.

¹⁴⁸ *Id.* at 15.

Additionally, a Stormwater Pollution Prevention Plan (SWPPP) must be submitted to and approved by the MPCA.¹⁴⁹ The MPCA reminded Nobles 2 that a 50-foot natural buffer must be maintained around wetlands, water courses, and other surface waters.¹⁵⁰

90. The North Central States Regional Council of Carpenters (NCSRCC) submitted a comment regarding the Project.¹⁵¹ The NCSRCC argued that the greatest benefit to local communities from wind projects is realized when local workers are hired to build the projects.¹⁵² The NCSRCC has members specifically trained in installation and erection of wind towers.¹⁵³ The NCSRCC indicated that Nobles 2, and other wind developers, should submit a plan to hire and train local workers.¹⁵⁴

91. Gene Metz, Nobles County Commissioner, submitted a comment detailing past wind projects in Nobles County.¹⁵⁵ Mr. Metz stated that the past three large projects built in Nobles County adhered to conditions placed upon them, and Mr. Metz opined that Nobles 2 will also comply with required standards.¹⁵⁶ Mr. Metz also stated that the wind projects benefit Nobles County economically.¹⁵⁷

92. The North Star Policy Institute commented to request that the Commission require reporting requirements on the use of local and non-local construction labor during the construction phase of the Project and future wind projects in order to sufficiently assess the human and environmental impacts of wind farm projects in Minnesota.¹⁵⁸ The North Star Policy Institute stated that there is insufficient data to assess the economic impact of wind farm projects in Minnesota and a reporting requirement would ensure a better understanding of the economic impacts of renewable energy projects.¹⁵⁹

93. Bailey and Nolan Onken submitted comments urging the Commission to consider the Project's impact on internet service in the region.¹⁶⁰ Bailey Onken is a college student who takes online courses during the summer.¹⁶¹ Nolan Onken is a high school student interested in taking online college courses in the future.¹⁶² Both rely on broadband internet service to complete school work and for leisure.¹⁶³ Both stated that

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ Comment of NCSRCC (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ Comment of Gene Metz (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ Comment of North Star Policy Institute (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁵⁹ *Id.*

¹⁶⁰ Comment of Bailey Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02); Comment of Nolan Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁶¹ Comment of Bailey Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁶² Comment of Nolan Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁶³ Comment of Bailey Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02); Comment of Nolan Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02).

the Project could impact internet service and thereby disrupt their schooling and their quality of life.¹⁶⁴

94. Kraig and Kevin Onken, members of K&K Onken Farms, LLC, submitted a comment asserting that their property was wrongfully represented in the boundary lines for the Project.¹⁶⁵ They commented that K&K Onken Farms LLC did not consent to participating in the Project.¹⁶⁶ They indicated that Nobles 2 should be required to begin the notification and public hearing process again due to errors in the boundary line maps.¹⁶⁷

95. Kevin and Shelly Onken submitted a comment opposing the Project.¹⁶⁸ They listed negative effects of the Project, including decreased cellular and internet service; adverse health impact related to shadow flicker and blinking lights; decreased property values; detrimental impact on wildlife; impact on water aquifers; decommissioning; and the impact on crop dusting and emergency medical helicopter operations.¹⁶⁹ The Onkens recommended that a solar farm be installed instead of the Project.¹⁷⁰ The Onkens also recommended various mitigation measures to reduce the negative impacts of the Project, including by requiring a one mile setback, and expressed concern about impacts to wetlands and waterfowl.¹⁷¹

96. Kraig and Lisa Onken commented that they are fundamentally opposed to the Project as a whole.¹⁷² The Onkens are particularly concerned about the impact the Project will have on television, internet, and cellular service.¹⁷³ The Onkens explained that due to increasing landline prices they rely on cellular and internet service, including for access to emergency services, telecommuting, and running their hog farm.¹⁷⁴ The Onkens want assurances that the Project will not impact their cellular service at home, or in any of their fields or buildings.¹⁷⁵ They also stated that the Project would erode the rural aesthetic of the area and strain township resources.¹⁷⁶

97. Kerry Sauer opposes the Project.¹⁷⁷ Ms. Sauer was concerned about flashing lights, loss of television signal, eagle habitats, endangering crop dusters, and damage to state highways from transportation.¹⁷⁸ Ms. Sauer stated that her daughters are marathon runners, and loud noise and distracting shadows from the Project will

¹⁶⁴ Comment of Bailey Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02); Comment of Nolan Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁶⁵ Comment of K&K Onken Farms, LLC (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

¹⁶⁸ Comment of Kevin and Shelly Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² Comment of Kraig and Lisa Onken (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁷³ *Id.*

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

¹⁷⁷ Comment of Kerry Sauer (Mar. 22, 2018) (eDocket No. 20183-141265-02).

¹⁷⁸ *Id.*

impact her daughters while they run in the area.¹⁷⁹ She also indicated she is sensitive to sound and light, and current towers can be heard four miles away.¹⁸⁰

98. Andrew Hagemann, Jr. of Flynn & Riordan PLLC submitted a comment on behalf of Wynn Sohler, Goedtke Legacy Trust, Raymond Goedtke, and Peter Goedtke who collectively own the west half of Section 15-104-41 in Nobles County, with the exception of two building sites.¹⁸¹ Mr. Hagemann, Jr. stated that his clients had not given consent for their property to be included in the Project, and they did not intend to give their consent for any construction or easements related to the Project on their land.¹⁸² They asked that their property be removed from within the proposed boundary lines of the Project.¹⁸³

99. Eric Joens submitted a comment echoing the comments he made at the Public Information and Environmental Scoping Meeting.¹⁸⁴ Mr. Joens stated that his family's internet connection is dependent on clear signals from the Wilmont Water Tower and proposed wind towers #85 and #86 will interfere with his internet service.¹⁸⁵ Mr. Joens stated that a recent Nobles area wind farm project created cellular signal interference that had not yet been remedied. Mr. Joens asked the Commission not to approve the Project until the interference problem is resolved.¹⁸⁶

C. Public Hearing

100. Two public hearings took place on June 20, 2018, at the Wilmont Community Center in Wilmont, Minnesota. The first hearing started at 1:00 p.m., and the second started at 6:00 p.m.¹⁸⁷

101. Jeremy Duehr, Joe Finocchiaro, Justin Vala, and Scott Seier appeared at the public hearing on behalf of Nobles 2. David Birkholtz and Jamie MacAlister appeared on behalf of the DOC-EERA. Michael Kaluzniak participated on behalf of the Commission Staff.

102. Two exhibits were offered and accepted into evidence as part of the public hearings.¹⁸⁸

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ Comment by Andrew Hagemann, Jr. (Mar. 27, 2018) (eDocket No. 20183-141403-01).

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ Comment by Eric Joens (Mar. 27, 2018) (eDocket No. 20183-141403-01).

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

¹⁸⁷ Public Hearing Tr. (Vol. I) (June 20, 2018 1:00 PM CST); Public Hearing Tr. (Vol. II) (June 20, 2018 6:00 p.m. CST).

¹⁸⁸ Public Hearing Tr. (Vol. I) at 45 (June 20, 2018); Public Hearing Ex. A (June 27, 2018) (eDocket No. 20186-144256-01); Public Hearing Tr. (Vol. II) at 30-31 (June 20, 2018); Public Hearing Ex. B (June 27, 2018) (eDocket No. 20186-144256-03).

103. Fifteen people attended the 1:00 p.m. public hearing¹⁸⁹ and nineteen people attended the 6:00 p.m. public hearing.¹⁹⁰ All members of the public were afforded a full opportunity to make a statement on the record and/or ask questions.

104. David Moeller, an attorney with MP, voiced support for the Project. Mr. Moeller noted MP's PPA with Nobles 2. Mr. Moeller explained that MP supports the Project because it believes that the Project will create more lower-cost wind energy for MP's customers and reduce carbon emissions. Mr. Moeller emphasized that the Project will provide price certainty because MP can rely on the Project for its energy needs rather than buying power from the Midcontinent Independent System Operator market. MP also sees the Project as a way to diversify its sources of energy geographically.¹⁹¹

105. Bruce Peterson, the executive director of the Minnesota State Energy Center of Excellence (Energy Center), spoke on behalf of the Energy Center and Minnesota West Community and Technical College in support of the Project. Mr. Peterson explained that the Energy Center works with colleges across Minnesota to prepare people to work in the energy industry. Mr. Peterson emphasized that the Project plans to employ fifteen full-time employees, positions that would be great opportunities for graduates.¹⁹²

106. Gene Metz, a Nobles County commissioner, voiced his support for the Project. Mr. Metz stated that wind production has been a success for Nobles County because it doesn't require tax abatements or other concessions, and does not pollute or need large amounts of other natural resources to operate. Mr. Metz explained that the increased tax revenues have been used to improve landowners' quality of life. Mr. Metz stated he has no issues with working around wind turbines on his farm, and he has not experienced a breakdown in signal while working under turbines.¹⁹³

107. Farryl Kluis, a local resident, voiced his support for the Project because it will provide clean energy, supplement landowner incomes, lead to improvements for township roads, and provide a boost to the local economy by providing jobs. Mr. Kluis stated that he is an appraiser and has not seen any negative effect from wind turbines on agricultural land values. Mr. Kluis also explained that many of the negative consequences of wind turbines are mitigated by the distance between the wind turbines and houses.¹⁹⁴

108. Kevin Pranis, a member of the Laborers' Union of Minnesota and North Dakota, spoke in support of the Project. Mr. Pranis stated that the wind resource development provides affordable energy and thousands of career opportunities for union members. Mr. Pranis commented that he believed that the Project's demand for workers could be filled by workers from southwestern Minnesota because there are a

¹⁸⁹ 1:00 p.m. Sign-in Sheets (June 27, 2018) (eDocket No. 20186-144257-02).

¹⁹⁰ 6:00 p.m. Sign-in Sheets (June 27, 2018) (eDocket No. 20186-144257-04).

¹⁹¹ Public Hearing Tr. (Vol. I) at 39-42 (June 20, 2018) (Moeller).

¹⁹² *Id.* at 42-43 (Peterson).

¹⁹³ *Id.* at 39-45 (Metz); Public Hearing Ex. A (Metz Comments).

¹⁹⁴ Public Hearing Tr. (Vol. I) at 46-48 (June 20, 2018) (Kluis).

large number of experienced workers in the area from recent projects. Mr. Pranis indicated his union is committed to training and supplying workers for these projects.¹⁹⁵

109. Nate O'Reilly, a member of Ironworkers Local 512, spoke in favor of the Project. Mr. O'Reilly stated that local hiring requirements can help provide jobs for rural communities that are losing jobs. Mr. O'Reilly urged the Commission to add a condition that Tenaska is required to pay prevailing wage to ensure a level playing field for workers.¹⁹⁶

110. Dale Moerke, a field staff member of the West Area Council with the AFL-CIO, commented in favor of a local jobs requirement because infrastructure projects give opportunities to local residents and provide economic benefits to local communities.¹⁹⁷

111. Lucas Franco, Research Manager in Minnesota and North Dakota for the Laborers' International Union of North America (Laborers' Union), spoke in support of the project. Mr. Franco highlighted findings from a recent study he co-authored issued by the North Star Policy Institute on the economic impacts of hiring local and nonlocal workers on wind farm projects in southern Minnesota. Among the conclusions Mr. Franco noted were that local workers contribute more to the regional economy than nonlocal workers because local workers spend the money they earn locally.¹⁹⁸

112. Abraham Algadi, Executive Director of the Worthington Regional Town Development, commented in support of the Project and the long term benefits that training local workers will have on the local economy.¹⁹⁹

D. SpeakUp Comments

113. No member of the public submitted written comments using the SpeakUp platform on the Commission's website.²⁰⁰

E. Other Written Comments

114. Thirty-seven identical letters were submitted, signed by 43 landowners, voicing support for the Project. The letters stated that the Project will benefit the community and that the Nobles 2 had addressed their concerns.²⁰¹

¹⁹⁵ *Id.* at 49-54 (Pranis); Public Hearing Tr. (Vol. II) at 33 (June 20, 2018) (Pranis).

¹⁹⁶ Public Hearing Tr. (Vol. I) at 54-57 (June 20, 2018) (O'Reilly).

¹⁹⁷ *Id.* at 57-58 (Moerke).

¹⁹⁸ Public Hearing Tr. (Vol. II) at 27-30 (June 20, 2018) (Franco); Public Hearing Ex. B (North Star Policy Institute Report).

¹⁹⁹ *Id.* at 31-32.

²⁰⁰ Speakup Comments (July 13, 2018) (eDocket No. 20187-144823-01); Speakup Comments (July 13, 2018) (eDocket No. 20187-144830-01); Speakup Comments (Dec. 4, 2017) (eDocket No. 20172-137941-01).

²⁰¹ Public Comments Batch 1 (June 12, 2018) (eDocket No. 20186-143743-02); Public Comments Batch 2 (June 20, 2018) (eDocket No. 20186-144033-02); Public Comments Batch 3 (June 20, 2018) (eDocket No. 20186-144014-01).

115. Minnesota State Senators Julie Rosen and Bill Weber, and Minnesota State Representative Joe Schomacker, submitted comments in support of the Project.²⁰² They highlighted that the Project is expected to bring \$1.1 million in tax revenue each year to local governments and \$1.5 million in lease payments each year for property owners.²⁰³ These officials also stated that the Project will provide opportunities for local workers and companies.²⁰⁴

116. Bruce Peterson, Executive Director of the Energy Center, filed a comment in support of the Project.²⁰⁵ Mr. Peterson noted that southwestern Minnesota has several operating wind farms, so the Project is not a new issue for the area.²⁰⁶ Mr. Peterson stated that the Energy Center works with colleges in Minnesota to prepare students for jobs in the wind industry.²⁰⁷ Mr. Peterson commented the jobs created by the Project and similar projects will support the local economy and reliable electricity.²⁰⁸ Mr. Peterson urged the Commission to grant the CN Application and SP Application.²⁰⁹

117. Mankato Building Trades filed two formal comments in support of the Project.²¹⁰ The organization urged the Commission to incorporate into the site permit any commitments made by Nobles 2 or Tenaska related to local hiring and safety. Mankato Building Trades also indicated that Nobles 2 should be required to submit quarterly reports showing the number of Minnesota and out-of-state workers on the Project, to optionally include a count of workers who live within 100 miles of the Project.²¹¹ It argued that the reporting requirement serves the Commission's objectives under the law.²¹² Mankato Building Trades requested that the Administrative Law Judge recommend that a permit condition related to reporting on local hiring be adopted and asked that findings from the North Star Policy Institute Report and the Minnesota Department of Employment and Economic Development be incorporated into the recommendation.²¹³ The organization further noted that unions affiliated with wind power delivered approximately 500,000 hours of skills training to more than 20,000

²⁰² Comment by Senator Julie Rosen (July 2, 2018) (eDocket No. 20187-144440-01); Comment by Senator Bill Weber and Representative Joe Schomacker (July 19, 2018) (eDocket No. 20187-145043-01).

²⁰³ Comment by Senator Julie Rosen (July 2, 2018) (eDocket No. 20187-144440-01); Comment by Senator Bill Weber and Representative Joe Schomacker (July 19, 2018) (eDocket No. 20187-145043-01).

²⁰⁴ Comment by Bill Weber and Joe Schomacker (July 19, 2018) (eDocket No. 20187-145043-02); Comment by Julie Rosen (July 2, 2018) (eDocket No. 20187-144440-02).

²⁰⁵ Comment by Bruce Peterson (July 2, 2018) (eDocket No. 20187-144443-01).

²⁰⁶ *Id.*

²⁰⁷ *Id.*

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ Comment by Mankato Building Trades (July 11, 2018) (eDocket No. 20187-144729-01); Comment by Mankato Building Trades (Mar. 20, 2018) (eDocket No. 20183-141217-02).

²¹¹ Comment by Mankato Building Trades (Mar. 20, 2018) (eDocket No. 20183-141217-02).

²¹² Comment by Mankato Building Trades (July 11, 2018) (eDocket No. 20187-144729-01).

²¹³ *Id.*; see also Public Hearing Ex. B (eDocket No. 20186-144256-03).

Minnesota members; and, that there is a large pool of skilled workers available to work on wind projects.²¹⁴

118. The MnDNR submitted two letters during this matter.²¹⁵ In a comment filed March 20, 2018, the MnDNR recommended that meteorological towers associated with the Project should be free-standing; noted an error in the designation of two Wildlife Management Areas (WMAs); and urged that turbines be set back an additional 200 feet from WMAs to account for future repowering.²¹⁶ With respect to avian and bat risks, certain turbines should be relocated in order for the Project to receive a low risk designation, but if turbines were not moved, post-construction fatality monitoring would require inclusion of three turbines near WMAs to determine if higher fatalities were occurring in that area.²¹⁷ The MnDNR also urged that turbine locations near the Swessinger WMA be moved further away; bat passes per detector night should be detailed because it showed moderate risk to bats; MnDNR would need to review the location of an active great heron rookery; data points on native plant community rankings should be considered; and the Project should avoid or be set back from grassland habitat and a condition should be imposed requiring all ground disturbance of native prairie to be avoided unless approved by the DOC-EERA and MnDNR.²¹⁸

119. In its July 11, 2018, comment, the MnDNR stated no further review of the blue heron rookery was necessary due to its location 10.9 miles from the nearest turbine.²¹⁹ The MnDNR noted testimony of Joseph Finocchiaro indicating that Nobles 2 is willing to revise its post-construction monitoring protocol, and the MnDNR encouraged Nobles 2 to modify the BBCS to reflect a moderate risk level and changes in the monitoring protocol.²²⁰ The MnDNR also noted that Nobles 2 should develop a prairie protection and management plan in consultation with the MnDNR.²²¹ The MnDNR indicated that other issues arising during project coordination had been adequately addressed.²²²

XI. Site Permit Criteria

120. Wind energy projects are governed by Minn. Stat. ch. 216F and Minn. R. ch. 7854. Minn. Stat. § 216F.01, subd. 2, defines an LWECS as a 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.

²¹⁴ Comment by Mankato Building Trades (July 11, 2018) (eDocket No. 20187-144729-01).

²¹⁵ Comment by MnDNR (July 11, 2018) (eDocket No. 20187-144723-01); Comment by MnDNR (Mar. 20, 2018) (eDocket No. 20183-141209-01).

²¹⁶ Comment by MnDNR (Mar. 20, 2018) (eDocket No. 20183-141209-01).

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ Comment by MnDNR (July 11, 2018) (eDocket No. 20187-144723-01).

²²⁰ *Id.*

²²¹ *Id.*

²²² *Id.*

121. 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 (2018), which provides, in relevant part, that the Commission “shall be guided by, but not limited to, the following considerations:

- (1) evaluation and research and investigations relating to the effects on land, water, and air resources or large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic field 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 . . . 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 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;
- (5) analysis of the direct and indirect economic impact of proposed sites . . . 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 . . . be accepted;
- (7) evaluation of alternatives to the applicant's proposed site . . . ;

- (9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;

- (11) evaluation of irreversible and irretrievable commitments of resources should the proposed site . . . be approved; and

(12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.”²²³

122. The Commission must also consider whether the Applicant has complied with all applicable procedural requirements.²²⁴

123. The Commission’s rules require the Applicant 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.²²⁵ No separate environmental review is required for an LWECs project.²²⁶

124. The record contains sufficient information to permit an evaluation of the Project under the established criteria.

XII. Application of the Statutory Siting Criteria to the Proposed Project

A. Human Settlement

125. The proposed Project is located in rural, southwestern Minnesota, and the majority of the landscape is open space.²²⁷ Wilmont Township, where the Project will be centered, has a population density of 5.27 people per square mile.²²⁸ The population density of the other townships within the Project area ranges from 4.48 to 10.94 people per square mile.²²⁹

126. Numerous commercial wind farms are located in the immediate and surrounding area of the Project,²³⁰ including existing wind farms immediately to the northwest and south of the proposed Project.²³¹ Approximately 184 wind turbines have been installed already in Nobles County.²³²

127. The construction of the Project is not anticipated to have a significant impact on the demographics of the Project Area.²³³

B. Zoning and Land Use

128. Nobles County has adopted a comprehensive plan related to land use and community planning.²³⁴ Nobles County Zoning Ordinance Section 729 discusses

²²³ Minn. Stat. § 216E.03, subd. 7.

²²⁴ Minn. R. 7854.1000, subd. 3.

²²⁵ Minn. R. 7854.0500, subp. 7.

²²⁶ *Id.*

²²⁷ Ex. Nobles-7 at 13, 23 (Revised SP Application).

²²⁸ Ex. EERA-6 at 51 (ER).

²²⁹ *Id.*

²³⁰ *Id.* at 53.

²³¹ Ex. Nobles-7 at 24 (Revised SP Application).

²³² *Id.* at 23.

²³³ *See id.* at 15.

WECS Regulations.²³⁵ According to the Nobles County Environmental Services Office, the Project Area is situated entirely within the Agricultural Preservation District of Bloom, Larkin, Leota, Lismore, Summit Lake, and Wilmont Townships as defined by the Nobles County Zoning Ordinance, and certain setbacks apply.²³⁶ While Nobles County has an ordinance specific to WECS, the ordinance regulates “the installation and operation of WECS not otherwise subject to siting and oversight by the State of Minnesota.”²³⁷ The Project is exempt from this WECS ordinance because the Project is over 25 MW in size; however, Nobles 2 has designed the Project to generally meet or exceed the minimum setback requirements identified by Nobles County’s ordinance.²³⁸

129. The Project is consistent with Nobles County’s comprehensive plan.²³⁹ Land within the Project area will continue to be used for agriculture.²⁴⁰

130. There are no Reinvest in Minnesota (RIM) easements or USFWS lands within the Project Area.²⁴¹

131. Nobles 2 designed the Project’s layout to avoid impacts to all 536 acres of Conservation Reserve Program (CRP) land within the Project area, with the exception of one proposed collector line that is routed through land that may still be under CRP.²⁴² Nobles 2 will verify CRP areas by evaluating current land lease agreements for participating landowners prior to construction. Nobles 2 plans to avoid CRP lands as it continues to develop the Project, and if these lands are unavoidable, Nobles 2 will work collaboratively with the U.S. Department of Agriculture (USDA) and the landowner to remove the impacted portion of the parcel from the applicable program prior to conducting disturbance activities.²⁴³

132. The Project compliments current agricultural and other land uses within and nearby the Project Area, and does not conflict with applicable zoning and/or comprehensive plan requirements. Nobles 2 does not expect the Project to have negative impacts on local zoning and comprehensive plans.²⁴⁴ Nobles 2 has taken steps to avoid and minimize impacts to land use and local zoning.²⁴⁵

²³⁴ *Id.*; see also Minn. Stat. § 216F.081 (providing that a “county may adopt by ordinance standards for LWECS that are more stringent than standards in commission rules or in the commission's permit standards. The commission, in considering a permit application for LWECS in a county that has adopted more stringent standards, shall consider and apply those more stringent standards, unless the commission finds good cause not to apply the standards.”)

²³⁵ Ex. Nobles-7 at 15 (Revised SP Application).

²³⁶ *Id.*

²³⁷ *Id.*

²³⁸ *Id.* at 15-16.

²³⁹ *Id.* at 18, 19.

²⁴⁰ *Id.* at 19.

²⁴¹ *Id.*

²⁴² *Id.*

²⁴³ *Id.*

²⁴⁴ *Id.* at 18-19.

²⁴⁵ *Id.*

C. Property Values

133. Property values are influenced by a complex interaction between factors specific to each individual piece of real estate as well as local and national market conditions.²⁴⁶ Therefore, the effect of one particular project on the value of one particular property is difficult to determine.²⁴⁷

134. Southern and southwestern Minnesota have experienced the largest degree of development of wind energy facilities in the state.²⁴⁸ This could make the addition of another large wind facility in the area less influential on property values than if the facility were sited in area with fewer existing wind energy facilities.²⁴⁹ Other wind farms are already located near the Project area.²⁵⁰

135. Six counties in southern Minnesota (Dodge, Jackson, Lincoln, Martin, Mower, and Murray) responded to a Stearns County survey seeking information about impacts on property values attributable to wind farms.²⁵¹ The survey results showed that neither properties hosting turbines, nor those adjacent to such properties, have been negatively impacted by the presence of wind farms.²⁵²

136. The Project is not anticipated to result in negative impacts to property values generally.²⁵³ In unique situations, specific individual property values may be negatively impacted, however.²⁵⁴ Negative impacts may be mitigated by siting turbines away from residences.²⁵⁵

D. Noise

137. Wind turbine operation produces sound.²⁵⁶ The level of sound produced varies depending on the speed of the turbine and the distance of the listener from the turbine.²⁵⁷

138. The MPCA has established standards regulating sound levels, the most stringent of which is a 50 A-weighted decibel (dBA) limit for nighttime sound levels.²⁵⁸ Sound levels are not to be exceeded for 10 percent and 50 percent of the time in a one-hour survey (L10 and L50, respectively) for each noise area classification.²⁵⁹

²⁴⁶ Ex. EERA-6 at 63 (ER).

²⁴⁷ *Id.*

²⁴⁸ *Id.*

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ *Id.* at 63-64.

²⁵² *Id.*

²⁵³ *Id.* at 64.

²⁵⁴ *Id.*

²⁵⁵ *Id.*

²⁵⁶ *Id.* at 61.

²⁵⁷ *Id.* at 59, 61.

²⁵⁸ *Id.* at 59; Minn. R. 7030.0040 (2017).

²⁵⁹ Ex. EERA-6 at 59 (ER).

139. Nobles 2 conducted a preliminary sound assessment of the Project and submitted a supplemental pre-construction sound monitoring report in response to MPCA requests.²⁶⁰ The Supplemental Report considered traffic noise and all other short-term sound events in the final results.²⁶¹ Complying with MPCA directives, the sound level measurements were filtered to remove sound level data for hours with meter-height wind speeds 11 mph or greater.²⁶² Average adjusted statistical sound levels were presented for each of the five days with stable weather conditions during the monitoring period.²⁶³ Both daytime and nighttime levels were 40 dBA or lower for periods with moderate wind speeds.²⁶⁴

140. The study model included an ambient background sound level of 35 dBA and a safety margin of +2 dBA in addition to the turbine manufacturer's sound emission data.²⁶⁵ The model included all potential turbine locations, including alternates.²⁶⁶ All modeled sound levels at the provided occupied residences are anticipated to be below 50.0 dBA.²⁶⁷ The maximum calculated sound level at any noise-sensitive receptor was 49.0 dBA.²⁶⁸ Based on this data, Nobles 2 does not anticipate exceeding MPCA rules at any of the residential receivers for any of the wind turbine options at any of the proposed wind turbine locations.²⁶⁹

141. Nobles 2 has engaged in efforts to site turbines in a manner that satisfies the MPCA sound standards. For example, Nobles 2 is maintaining a minimum setback distance of 1,600 feet to occupied dwellings.²⁷⁰

142. The Draft Site Permit contains conditions regarding monitoring and mitigation of sound from the Project. Section 4.3 of the Draft Site Permit requires turbines to be placed in appropriate locations to ensure compliance with the noise standards.²⁷¹ In addition, Section 7.4 of the Draft Site Permit requires Nobles 2 to conduct post-construction sound monitoring. The study will determine the sound levels at different frequencies and at various distances from the turbines at various wind directions and speeds.²⁷²

²⁶⁰ *Id.* at 61-62; Ex. Nobles-4 at Appendix C (Pre-Construction Sound Monitoring Study); Ex. Nobles-13, Sched. 6 (Vala Direct).

²⁶¹ Ex. Nobles-13, Sched. 6 (Vala Direct).

²⁶² *Id.* at 26.

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ Ex. Nobles-13, Sched. 7 at 4 (Vala Direct).

²⁶⁶ *Id.*

²⁶⁷ *Id.*

²⁶⁸ *Id.*

²⁶⁹ *Id.*

²⁷⁰ Ex. Nobles-7 at 23 (Revised SP Application).

²⁷¹ Draft Site Permit § 4.3 (eDocket No. 20185-143331-01).

²⁷² *Id.*, § 7.4.

E. Shadow Flicker

143. Wind turbines create shadow flicker.²⁷³ Shadow flicker is the intermittent change in light intensity due to shadows cast by rotating wind turbine blades.²⁷⁴ For shadow flicker to occur, three conditions must be met: (1) the sun must be shining with no clouds to obscure it; (2) the rotor blades must be spinning and must be located between the receptor and the sun; and (3) the receptor must be sufficiently close to the turbine to be able to distinguish the shadow created by the turbine.²⁷⁵

144. The intensity and frequency of shadow flicker at a given receptor depends on a number of interacting factors, including: sun angle and path; cloud cover; distance from turbine(s); wind direction and speed; topography; the presence of visual obstacles (i.e., trees or buildings); and the light intensity within a home.²⁷⁶ The anticipated level of shadow flicker from the Project is not harmful to the health of photosensitive individuals, including those with epilepsy.²⁷⁷

145. Nobles 2 modeled shadow flicker frequency calculations for the Project at 590 residences.²⁷⁸ Nobles 2 used both a worst case scenario model and a realistic model.²⁷⁹ The shadow flicker modelling study used the Vestas V136, which has the largest rotor diameter of the turbines proposed by Nobles 2, at each of the 86 wind turbine pad sites.²⁸⁰ Modeled conservatively, the study indicated that of the 590 receptors, 80 percent received no shadow flicker, and none measured over 30 hours or more per year of realistic shadow flicker at a participating or a non-participating landowner's occupied residence.²⁸¹ Specifically, no occupied residences experienced more than 29 hours and 7 minutes of shadow flickering per year based on realistic assumptions regarding operational time and sunshine probability.²⁸²

146. Nobles 2 has engaged in efforts to site turbines to minimize the impact of shadow flicker to residences. Nobles 2 will maintain a minimum 1,600 foot setback from all residences, which should minimize shadow flicker.²⁸³ Nobles 2 will also continue to consider shadow flicker when siting wind turbines to minimize impacts to area residents.²⁸⁴ Although unlikely to occur, Nobles 2 will address specific cases of

²⁷³ Ex. EERA-6 at 54 (ER).

²⁷⁴ *Id.*

²⁷⁵ *Id.* at 54-55.

²⁷⁶ *Id.* at 56; Ex. Nobles-7 at 26-27 (Revised SP Application).

²⁷⁷ Ex. EERA-6 at 57 (ER) *see also In re Application of Lake Country Wind Energy, LLC for a 41 Megawatt Large Wind Energy Conversion System in Kandiyohi and Meeker Counties*, MPUC Docket No. IP-6846/WS-10-798, ORDER at 34, 35 (adopting proposed findings stating that “[s]hadow flicker can be a nuisance to people living near a wind energy project if the project is not properly designed to avoid impacts to residents,” and that “[e]vidence of health effects from shadow flicker is limited, suggesting that it is more of a nuisance issue.”).

²⁷⁸ Ex. Nobles-13, Sched. 7 at 4 (Vala Direct).

²⁷⁹ *Id.*

²⁸⁰ *Id.*

²⁸¹ *Id.*; Ex. EERA-6 at 56 (ER).

²⁸² Ex. Nobles-13, Sched. 7 at 4 (Vala Direct).

²⁸³ *See* Ex. EERA-6 at 57 (ER); Ex. Nobles-7 at 28 (Revised SP Application).

²⁸⁴ Ex. Nobles-7 at 28 (Revised SP Application).

documented excessive shadow flicker.²⁸⁵ Nobles 2 will consider and implement mitigation measures based on individual circumstances of the residences experiencing shadow flicker, and as a reasonable function of the amount of flicker experienced.²⁸⁶ Mitigation measures may include providing indoor or exterior screening, or operational software adjustments (brief, temporary shutdown of specific turbines) will be considered and utilized where appropriate and reasonable.²⁸⁷

147. The Draft Site Permit addresses shadow flicker. Section 7.2 of the Draft Site Permit requires Nobles 2 to provide the Commission with data on shadow flicker, at least 14 days prior to the pre-construction meeting, for each residence of non-participating and participating landowners within and outside of the Project boundary, that are potentially subject to turbine shadow flicker exposure.²⁸⁸ The data will include the modeling results, assumptions made, and the anticipated level of exposure from turbine shadow flicker for each residence. Nobles 2 will also be required to provide documentation on its efforts to avoid, minimize, and mitigate shadow flicker exposure.

F. Aesthetic Impacts

148. The typical visual landscape within the Project area includes agricultural fields, farmsteads with trees planted as windbreaks, and active or fallow fields.²⁸⁹

149. Construction of the Project will alter the existing landscape with the placement of up to 82 wind turbines. However, wind energy production already exists as a land use in the area.²⁹⁰ Because numerous commercial wind farms are located in the immediate area and surrounding area, the Project should have a lesser aesthetic impact than would be felt in areas with no previous wind development.²⁹¹ The Project area will retain its rural character, and wind turbines are compatible with the rural and agricultural heritage of the area.²⁹²

150. Nobles 2 will implement mitigation measures to minimize potential aesthetic impacts. In the Revised SP Application, Nobles 2 identifies nine mitigation measures, including, but not limited to, using existing roads to the greatest extent possible to limit the number of new roads that need to be constructed, limiting above ground collector lines, using a uniform turbine color, and converting temporarily disturbed areas back to cropland or reseeded them with native seed mixes appropriate to the region.²⁹³

²⁸⁵ *Id.*

²⁸⁶ *Id.*

²⁸⁷ *Id.*; Ex. EERA-6 at 57 (ER).

²⁸⁸ Draft Site Permit § 7.2 (eDocket No. 20185-143331-01).

²⁸⁹ Ex. Nobles-7 at 23 (Revised SP Application).

²⁹⁰ Ex. Nobles-12 at 3 (Seier Direct).

²⁹¹ *Id.*

²⁹² Ex. Nobles-7 at 24 (Revised SP Application); Ex. EERA-6 at 53 (ER).

²⁹³ Ex. Nobles-7 at 25 (Revised SP Application).

151. Nobles 2 has taken steps to avoid and minimize aesthetic impacts. With the mitigation measures discussed above, the Project is not anticipated to result in significant aesthetic impacts.

G. Local Economy

152. The Project will provide benefits to the local economy; specific benefits include creating employment in the area, establishing a revenue stream to participating landowners, and increasing in the tax base.²⁹⁴

153. Nobles 2 plans to use local contractors and suppliers for portions of the construction, to the extent possible.²⁹⁵ The Project is expected to create up to 230 temporary construction jobs and approximately 15 full-time operations jobs, plus additional seasonal and support staff positions.²⁹⁶ Wages and salaries paid to contractors and workers in Nobles County will contribute to the overall personal income of the region.²⁹⁷

154. Nobles 2 intends to hire an engineering, procurement, and construction (EPC) contractor who will be responsible for hiring the construction work force.²⁹⁸ The EPC contractor will survey project labor availability and arrange for staffing and management of the project workforce.²⁹⁹ Nobles 2 has not yet selected an EPC contractor for the Project, and has not yet assessed the availability of qualified labor in the local area.³⁰⁰ Nobles 2 will encourage the EPC contractor to utilize qualified local labor where practical, and will also encourage the EPC contractor to use a variety of recruiting methods, including a local job fair prior to the start of construction, to identify qualified and available local labor.³⁰¹

155. Nobles 2 is willing to using local labor resources for the Project.³⁰² Based upon its desire to hire local labor, but also recognizing that qualified local labor may not be available, Nobles 2 engaged in discussions with the Laborers' Union and Mankato Building and Trades, resulting in a voluntarily commitment by Nobles 2 to provide the Commission with quarterly reports documenting the number of hours or full-time equivalents worked by local laborers for the construction of the Project.³⁰³ Nobles 2, in coordination with the Laborers' Union and Mankato Building and Trades, proposes the following site permit condition:

²⁹⁴ *Id.* at 50-51.

²⁹⁵ *Id.* at 51; Public Hearing Tr. (Vol. I) at 21-22 (June 20, 2018) (Seier).

²⁹⁶ Ex. Nobles-7 at 50 (Revised SP Application).

²⁹⁷ *Id.* at 51.

²⁹⁸ Ex. Nobles-12 at 7 (Seier Direct).

²⁹⁹ *Id.*

³⁰⁰ *Id.*

³⁰¹ *Id.*

³⁰² *Id.*

³⁰³ *Id.* at 8.

10.4.1. Construction Labor Status Reports. The Permittee shall file quarterly reports with the Commission within 45 days of the end of the quarter regarding construction workers that participated in construction of the project. Reports shall include: (a) 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, during the quarter in which they participated in construction of the project; (b) the gross number of hours worked by or full-time equivalent workers of people who live in other states but are within 150 miles of the project; and (c) total gross hours or full-time equivalent workers. Permittee shall work with its contractor to determine suitable reporting metrics. Reports shall begin with the commencement of site construction and continue until completion of site restoration.³⁰⁴

156. The DOC-EERA proposes alternative language related to reporting regarding local labor participation. The DOC-EERA supports the use of local labor to the extent practicable and believes that tracking data regarding local labor usage may help the State of Minnesota to evaluate the economic impact of wind development and to enable workforce development.³⁰⁵ The DOC-EERA proposes that Nobles 2 file one post-construction report rather than quarterly reports, which the DOC-EERA asserts will be less onerous and will provide equivalent data.³⁰⁶ The DOC-EERA proposes that the report indicate efforts made to engage local workers, consistent with another Commissioner order.³⁰⁷ The DOC-EERA's proposed permit condition reads as follows:

10.4.1. Labor Statistics Report. The Permittee shall file a post-construction Labor Statistics Report within 60 days of commencement of operation. The Report shall (a) detail the Permittee's efforts and the site contractor's efforts to hire Minnesota workers, and (b) provide an account of (1) 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; (2) the gross number of hours worked by or full-time equivalent workers who are residents of other states, but live within 150 miles of the project; and (3) 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.³⁰⁸

³⁰⁴ *Id.* at 11.

³⁰⁵ DOC-EERA Comments and Recommendations at 3 (July 25, 2018) (eDocket No. 20187-145216-01).

³⁰⁶ *Id.*

³⁰⁷ *Id.*; see also *In re Application of Stoneray Power Partners LLC for a Certificate of Need for up to 105 MW Large Energy Facility in Pipestone and Murry Counties*, MPUC Docket No. IP6646/CN-13-193, ORDER APPROVING SITE PERMIT AMENDMENT AND REQUIRING REPORT at 4 (Jan. 26, 2018).

³⁰⁸ DOC-EERA Comments and Recommendations at 3 (July 25, 2018) (eDocket No. 20187-145216-01).

157. Landowners that executed leases or wind easements with Nobles 2 will receive payments annually for the life of the Project; this revenue stream will provide local landowners with additional income and, as a result, will strengthen the local economy.³⁰⁹

158. The Project will also pay a Wind Energy Production Tax to local units of government of \$0.0012 per kilowatt hour (kWh) of electricity produced, totaling an estimated \$1.1 to \$1.3 million in annual payments to the county and to townships within the Project.³¹⁰

159. The record demonstrates that the Project will result in short- and long-term benefits to the local economy. Negative impacts to the local economy are not anticipated or are offset, for example, by lease payments for land removed from agricultural production.³¹¹

H. Public Health

160. Electric and magnetic fields (EMF) are present around electrical devices.³¹² Electric fields are created from the electrical charge, or voltage, on a transmission line, and magnetic fields arise from the flow of electricity or current that travels along transmission lines, power collection (feeder) lines, substation transformers, house wiring, and electrical appliances.³¹³

161. EMF is often raised as a concern with electrical transmission projects, but the Commission has consistently found that there is insufficient evidence to demonstrate a causal relationship between EMF exposure and human health effects.³¹⁴

162. Based upon current research regarding EMFs, and the separation distances to be maintained in the Project area between transformers, turbines and collector lines and nearby public access and occupied homes, EMFs associated with the Project are not expected to have an impact on public health and safety.³¹⁵

163. Stray voltage is a natural phenomenon resulting from low levels of electrical current flowing between two points that are not directly connected.³¹⁶ Stray voltage does not cause electrocution and is not related to ground current, EMF, or earth currents.³¹⁷ In instances when distribution lines have contributed to the creation of stray voltage on farm facilities, the distribution system was either directly under or parallel to an existing transmission line.³¹⁸ These factors are considered in design and installation

³⁰⁹ Ex. Nobles-7 at 51 (Revised SP Application).

³¹⁰ *Id.* at 51; Ex. EERA-6 at 65 (ER).

³¹¹ Ex. Nobles-7 at 50-51 (Revised SP Application).

³¹² *Id.* at 41; *see also* Ex. EERA-6 at 66 (ER).

³¹³ Ex. Nobles-7 at 41 (Revised SP Application); *see also* Ex. EERA-6 at 66 (ER).

³¹⁴ Ex. EERA-6 at 66 (ER).

³¹⁵ Ex. Nobles-7 at 42 (Revised SP Application); *see also* Ex. EERA-6 at 67-68 (ER).

³¹⁶ Ex. EERA-6 at 68 (ER).

³¹⁷ *Id.*

³¹⁸ *Id.*

of transmission lines and can be readily mitigated.³¹⁹ With regard to the Project, because of the type of transformers used at each turbine and the design of the collection system, there are no ground currents in the collection system.³²⁰ Therefore, under normal operating conditions, the grounding for the Project's collection system has no current with which to create stray voltage.³²¹ No impacts from stray voltage are anticipated.³²²

164. No impacts to public health are anticipated to result from construction and operation of the Project.³²³ Due to the low risk, the DOC-EERA did not recommend any mitigation measures.³²⁴ Additionally, the Draft Site Permit contains conditions regarding the protection of livestock during all phases of the Project,³²⁵ and repair or replacement of fences removed or damaged during all phases of the Project's life unless otherwise negotiated with the landowner.³²⁶

I. Public Safety

165. Nobles County has law enforcement and emergency management operations.³²⁷ The cities in the area have their own fire departments.³²⁸

166. Nobles 2 will coordinate with local officials to develop safety procedures during the construction and operation of the Project.³²⁹

167. Nobles 2 will adopt workers' safety plans and will control access to the Project during construction and operation.³³⁰

168. The Draft Site Permit contains conditions related to public safety.³³¹ Section 5.2.25 of the Draft Site Permit requires Nobles 2 to 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. Nobles 2 will also be required to provide any necessary safety measures such as warning signs and gates for traffic control or to restrict public access. In addition, Nobles 2 must submit the location of all underground facilities to Gopher State One Call after construction is completed.

169. No significant impacts to public safety are expected to result from construction and operation of the Project. Further, the Draft Site Permit contains

³¹⁹ *Id.* at 68.

³²⁰ *Id.* at 83.

³²¹ *Id.*

³²² Ex. Nobles-7 at 42 (Revised SP Application); Ex. EERA-6 at 83 (ER).

³²³ See Ex. Nobles-7 at 42 (Revised SP Application).

³²⁴ Ex. EERA-6 at 69 (ER).

³²⁵ Draft Site Permit § 5.5.17 (May 25, 2018) (eDocket No. 20185-143331-01).

³²⁶ *Id.*, § 5.2.18.

³²⁷ Ex. Nobles-7 at 43 (Revised SP Application).

³²⁸ *Id.* at 28.

³²⁹ *Id.* at 44.

³³⁰ *Id.* at 43.

³³¹ See Draft Site Permit § 5.2.25 (May 25, 2018) (eDocket No. 20185-143331-01).

conditions to ensure public safety and to monitor and mitigate the Project's potential impacts on public safety.

J. Public Service and Infrastructure

i. Roads

170. Existing roadway infrastructure in and around the Project area includes county and township roads that generally follow section lines, with private unpaved farmstead driveways and farming access roads.³³² The Project area is accessible by various County Roads and County State Aid Highways, and Interstate Trunk Highway 90 is located 7.5 miles south of the Project area.³³³ Access from surrounding roadways will reduce the need for extensive access roads related to the Project and will allow existing primarily agricultural uses to continue relatively unaltered.³³⁴

171. Construction of the Project will cause temporary, short term, intermittent impacts on some public roads within the Project area.³³⁵ Construction traffic will use the existing county and state roadway system to access the Project Area and deliver construction materials and personnel.³³⁶ Existing traffic volumes in the area are fairly light,³³⁷ and construction activities will increase the amount of traffic using local roadways.³³⁸ Some roads may also be expanded along specific routes as necessary to facilitate the movement of equipment.³³⁹ Any temporary modifications to the existing road system would be restored following construction.³⁴⁰

172. Additionally, during the construction phase, 24 miles of gravel access roads will be built, with the final mileage to depend on the wind turbine model selected and final design.³⁴¹ Operation and maintenance crews will use the access roads while inspecting and servicing the wind turbines throughout the life of the Project.³⁴² The access roads would be between towers and one road would be required for each turbine string.³⁴³ The roads will be primarily gravel with varying thickness and will initially be wide enough for construction traffic; the permanent access road will be between 16 and 18 feet wide with a low profile allowing farm equipment to travel across.³⁴⁴

³³² Ex. Nobles-7 at 29 (Revised SP Application).

³³³ *Id.*

³³⁴ *Id.*; Ex. EERA-6 at 70 (ER).

³³⁵ Ex. EERA-6 at 72 (ER).

³³⁶ *Id.*

³³⁷ *Id.* at 71.

³³⁸ *Id.* at 72.

³³⁹ *Id.*

³⁴⁰ *Id.*

³⁴¹ *Id.*

³⁴² *Id.*

³⁴³ *Id.*

³⁴⁴ *Id.*; Ex. Nobles-7 at 12 (Revised SP Application).

173. Nobles 2 will review designated haul roads with the local authority that has jurisdiction over the haul roads and will execute road use agreements where required.³⁴⁵ Road use agreements will be used to identify suitable travel routes, traffic control measures, methods for evaluating, monitoring and restoring roads, and establish mitigation measures to ensure roads used for oversize/overweight loads are properly identified, monitored, and stabilized.³⁴⁶

174. In addition, the Draft Site Permit contains provisions related to the use of public roads, the construction of turbine access roads, and private roads.³⁴⁷ For example, the Draft Site Permit requires Nobles 2 to make satisfactory arrangements with the appropriate road authorities.³⁴⁸ Nobles 2 must construct the least number of turbine access roads necessary to safely and efficiently operate the Project and satisfy landowner requests; access roads will be constructed in accordance with all necessary township, county, or state road requirements and permits.³⁴⁹ Nobles 2 must also promptly repair private roads or lanes damaged when moving equipment or when obtaining access to the site, unless otherwise negotiated with the affected landowner.³⁵⁰

ii. Communication Systems

175. Nobles 2 will construct and operate the Project in a manner designed to avoid adverse impacts on telephone, television, internet, and cellular telephone service.³⁵¹

176. Nobles 2 engaged Comsearch to analyze the existing cellular mobile phone coverage in and near the Project area and to assess whether the Project had the potential to disrupt cellular mobile phone service within and adjacent to the Project Area after construction.³⁵² Comsearch completed a Mobile Phone Carrier Report for the Project on June 5, 2018, in which it noted that cellular phone communications “are typically unaffected by the presence of wind turbines” and that it did “not anticipate any significant harmful effect to mobile phone services” in and near the Project.³⁵³ In addition, Comsearch indicates that “cellular mobile signal propagation is typically not affected by physical structures because the beam widths of the radiated signal . . . are very wide and the wavelength of the signal is long enough to wrap around objects such as wind towers and blades.”³⁵⁴

177. Construction and operation of the Project is not expected to impact telephone service in the Project area.³⁵⁵ To the extent Project facilities cross or

³⁴⁵ Ex. Nobles-7 at 31 (Revised SP Application).

³⁴⁶ *Id.*

³⁴⁷ See Draft Site Permit §§ 5.2.12, 5.2.13, 5.2.1 (May 25, 2018) (eDocket No. 20185-143331-01).

³⁴⁸ *Id.*, § 5.2.12.

³⁴⁹ *Id.*, § 5.2.13.

³⁵⁰ *Id.*, § 5.2.14.

³⁵¹ Ex. Nobles-7 at 32 (Revised SP Application).

³⁵² Ex. Nobles-13, Sched. 2 at 3, 10 (Vala Direct).

³⁵³ *Id.* at 10.

³⁵⁴ *Id.* at 9.

³⁵⁵ Ex. EERA-6 at 75 (ER).

otherwise impact existing telephone lines or equipment, Nobles 2 will enter into agreements with service providers to avoid interference with their facilities.³⁵⁶ Section 5.2.16 of the Draft Site Permit requires that the Project not interfere with telecommunications.³⁵⁷

178. Wind turbines have the potential to interfere with existing communications systems licensed to operate in the United States.³⁵⁸ The Draft Site Permit prohibits operation of the Project in a way that causes microwave, radio, or navigation interference contrary to Federal Communications Commission (FCC) regulations or other law.³⁵⁹

179. Comsearch evaluated licensed non-federal government microwave beam paths in the vicinity of the Project area and determined that 40 microwave beam paths intersect the Project area.³⁶⁰ Comsearch calculated the Fresnel Zones, which is an area of signal swath which proposed turbines should avoid.³⁶¹ To prevent disruption of the microwave beam path, Nobles 2 will not site turbines in the centerline of a beam path.³⁶²

180. Comsearch evaluated degradation to the operational coverage of AM and FM radio broadcast stations located in the Project vicinity.³⁶³ The potential for interference with radio signals is low.³⁶⁴ FM stations are usually not at risk to interference from wind turbines; further, all of the identified FM stations are outside of the Project area and at least 3.2 miles away.³⁶⁵ Consequently, no impact to FM broadcasts is expected.³⁶⁶ The nearest AM station transmitter is 4.5 miles away from the Project area, and no interference with AM broadcast stations is expected.³⁶⁷

181. The U.S. Department of Commerce National Telecommunications and Information Administration (NTIA) coordinates government communication systems for all departments and agencies.³⁶⁸ Nobles 2 requested a review by NTIA to determine if there would be any concerns with radio frequency transmission blockage, and the NTIA responded with a review finding No Harmful Interference Anticipated.³⁶⁹

182. Wind turbines may impact television reception, as a result of an obstruction in the line of sight between residences relying on digital antennas for TV

³⁵⁶ *Id.* at 75-76; Ex. Nobles-7 at 32 (Revised SP Application).

³⁵⁷ Draft Site Permit § 5.2.16 (May 25, 2018) (eDocket No. 20185-143331-01).

³⁵⁸ Ex. EERA-6 at 74-75 (ER).

³⁵⁹ Draft Site Permit § 5.2.16 (May 25, 2018) (eDocket No. 20185-143331-01).

³⁶⁰ Ex. Nobles-7 at 32 (Revised SP Application).

³⁶¹ *Id.*

³⁶² *Id.*; Ex. EERA-6 at 77 (ER).

³⁶³ Ex. Nobles-7 at 32 (Revised SP Application).

³⁶⁴ Ex. EERA-6 at 77 (ER).

³⁶⁵ Ex. Nobles-7 at 33 (Revised SP Application).

³⁶⁶ *Id.*

³⁶⁷ *Id.* at 32; Ex. EERA-6 at 77 (ER).

³⁶⁸ Ex. EERA-6 at 75 (ER).

³⁶⁹ *Id.*

reception and the TV station antennas.³⁷⁰ The dominant delivery modes within the Project area are believed to be TV cable service (where available) and direct satellite broadcast, and these services will be unaffected by the presence of the Project.³⁷¹ If issues arise with television reception after construction of the Project, Nobles 2 will work with the affected residents in a timely manner to determine the cause of the interference and establish acceptable reception.³⁷²

183. The Draft Site Permit prohibits interference with microwave, television, radio, telecommunications, or navigation signals, and requires Nobles 2 to alleviate any disruption or interference of these services caused by the turbines or any associated facilities.³⁷³

184. Nobles 2 engaged Comsearch to prepare a study of the local wireless broadband internet service to determine whether wireless broadband internet service could be impacted.³⁷⁴ To the extent any customer impacts are identified prior to or after construction, Nobles 2 will work with the local provider, Lismore Cooperative Telephone Company (LCTC), on a case-by-case basis, to adjust the line of sight to a customer to eliminate the impacts.³⁷⁵ LCTC indicates that the western half of the Project Area is served by cable broadband service and LCTC plans to install a repeater tower east of Lismore in the near term to facilitate better wireless broadband coverage in the eastern half of the Project Area.³⁷⁶ LCTC also noted that it has not received any complaints about wind farms disrupting wireless broadband service.³⁷⁷ Nobles 2 will continue to engage with LCTC prior to and during construction to ensure that the LCTC cable infrastructure is properly located and avoided during construction.³⁷⁸ Avoiding LCTC cable infrastructure should ensure that there is no disruption to cable broadband internet customers in the western half of the Project area.³⁷⁹

185. Nobles 2 engaged Comsearch to analyze the potential for the Project to disrupt wireless broadband internet service within and adjacent to the Project area after the Project is constructed. Comsearch completed a Wireless Internet Services Report for the Project and determined that three residences would lose line-of-sight (LOS) service due to construction of the Project, but all three of the residences that would lose LOS service because of the Project are located in an area serviced by cable broadband service.³⁸⁰ Therefore, Comsearch does not anticipate any harmful effect to the wireless

³⁷⁰ *Id.* at 76.

³⁷¹ *Id.*; Ex. Nobles-7 at 34 (Revised SP Application).

³⁷² Ex. Nobles-7 at 34 (Revised SP Application).

³⁷³ Draft Site Permit § 5.2.16 (May 25, 2018) (eDocket No. 20185-143331-01).

³⁷⁴ Ex. Nobles-13 at 5 (Vala Direct).

³⁷⁵ Ex. EERA-6 at 78 (ER).

³⁷⁶ Comment of Bill Loonan (Mar. 22, 2018) (eDocket No. 20183-141265-02); Ex. EERA-6 at 78 (ER); Ex. Nobles-13 at 5 (Vala Direct).

³⁷⁷ Comment of Bill Loonan (Mar. 22, 2018) (eDocket No. 20183-141265-02); Ex. EERA-6 at 78 (ER); Ex. Nobles-13 at 5 (Vala Direct).

³⁷⁸ Ex. Nobles-13 at 5 (Vala Direct).

³⁷⁹ *Id.*

³⁸⁰ *Id.* at 5-6, Sched. 3 at 6.

broadband internet services in and near the Project.³⁸¹ In the event the Project or its operations cause wireless broadband interference, Nobles 2 will engage in close coordination with LCTC to correct the problem in a timely manner.³⁸² Measures taken will depend upon LCTC's recommendations, the location of the interference, and the problems being experienced by the broadband customer.³⁸³

iii. Underground Infrastructure and Other Utilities

186. No oil and natural gas pipelines are mapped within or near the Project area and no impacts to such pipelines are expected.³⁸⁴

187. There may be limited impacts to electrical service in connection with coordinated, short-term outages when high clearance construction equipment needs to cross areas with overhead distribution and/or transmission lines.³⁸⁵ There may also be outages associated with the Project's transmission interconnection construction process.³⁸⁶ Nobles 2 will work closely with local service providers to plan and coordinate with local residents and other impacted users.³⁸⁷

188. The Project area has limited public infrastructure services. Homes and farmsteads typically use on-site water wells or water service from Lincoln-Pipestone Rural Water.³⁸⁸ Individual household sanitary needs are typically served by septic systems.³⁸⁹ Construction and operation of the Project will not affect the water supply or sanitary service.³⁹⁰ Nobles 2 will share information with Lincoln-Pipestone Rural Water to avoid impacts to their water distribution system, utilizing crossing agreements where needed.³⁹¹ The Project is not anticipated to require installation or abandonment of water supply wells.³⁹²

K. Recreational Resources

189. Nobles County offers various recreational opportunities, including hiking, biking, boating, fishing, hunting, camping, snowmobiling, cross country skiing, horseback riding, state parks, and nature viewing.³⁹³

190. There are Wildlife Management Areas (WMA), Scientific and Natural Areas (SNA), and Waterfowl Protection Areas (WPA) located within ten miles of the

³⁸¹ Ex. Nobles-13 at 6 (Vala Direct).

³⁸² *Id.*

³⁸³ *Id.*

³⁸⁴ Ex. Nobles-7 at 34 (Revised SP Application).

³⁸⁵ *Id.*

³⁸⁶ *Id.*

³⁸⁷ *Id.*

³⁸⁸ *Id.*

³⁸⁹ *Id.*

³⁹⁰ *Id.*

³⁹¹ *Id.*

³⁹² *Id.*

³⁹³ *Id.* at 38.

Project area.³⁹⁴ There are four WMAs within the Project Area.³⁹⁵ There are no Federal, county, or city parks in or near the Project Area boundary.³⁹⁶ No National Wildlife Refuges (NWR) are within the Project Area.³⁹⁷ Recreational resources within the Project Area include approximately eight miles of the Frosty Riders Snowmobile Trail, which will be afforded a minimum 300-foot setback from the trail right-of-way.³⁹⁸

191. Nobles 2 will not site turbines in biologically sensitive areas such as public parks, WMAs, SNAs, and WPAs.³⁹⁹ Further, Nobles 2 has designed the layout to provide at least a three RD by five RD setback from all non-participating lands, including all WMA boundaries and all other state or federal conservation lands.⁴⁰⁰

192. Because all of the public lands identified within the Project area will have a minimum setback of 1,339 feet (e.g., three RD by five RD from non-participating land) from Project infrastructure, and a minimum setback of 300 feet from snowmobile trail right-of-ways, no direct impacts to recreational resources are anticipated.⁴⁰¹ Recreational users will likely see some turbines from public lands or conservation areas, but as noted previously, the surrounding area has already experienced wind development, reducing the visual impact of the Project.⁴⁰²

193. Based on the record, no adverse impacts to recreational resources are anticipated from the Project.

L. Effects on Agriculture and other Land Based Economies

i. Agriculture

194. Approximately 37,697 acres (88.6 percent) of the Project Area is classified as cultivated land.⁴⁰³ Approximately 26 acres (less than 1 percent) of the Project Area is classified as hay/pasture.⁴⁰⁴

195. Approximately 100 acres of farmland will be removed from agricultural production for turbine pads and access roads, or approximately 0.5 to 1 acre per turbine.⁴⁰⁵ Other areas temporarily removed from agricultural crop production during construction will be restored back to farmable conditions after construction is

³⁹⁴ *Id.* at 38-40.

³⁹⁵ *Id.* at 38.

³⁹⁶ *Id.*

³⁹⁷ *Id.* at 40.

³⁹⁸ *Id.* at 41.

³⁹⁹ Ex. EERA-6 at 54 (ER).

⁴⁰⁰ Ex. Nobles-14 at 4 (Finocchiaro Direct); Ex. Nobles-7 at 41 (Revised SP Application).

⁴⁰¹ Ex. Nobles-7 at 41 (Revised SP Application).

⁴⁰² Ex. EERA-6 at 53 (ER).

⁴⁰³ Ex. Nobles-7 at 59 (Revised SP Application).

⁴⁰⁴ *Id.*

⁴⁰⁵ *Id.* at 15; Ex. EERA-6 at 81 (ER).

complete.⁴⁰⁶ Additionally, Nobles 2 will reimburse landowners for any crop damages and losses that occur during construction or maintenance activities during operation.⁴⁰⁷

196. Prior to beginning site work, Nobles 2 will coordinate with landowners to identify and locate drain tiles and other drainage structures present in the work area.⁴⁰⁸ Significant impacts to drain tiles and other existing facilities due to Project construction and operation are not anticipated; however, Nobles 2 will promptly repair or replace drain tile that may be impacted by the Project in accordance with its agreement with the landowner, and as required by Section 5.2.19 of the Draft Site Permit.⁴⁰⁹

197. The Project avoids impacts to RIM land and minimizes impacts to CRP land.⁴¹⁰ If CRP land is impacted, Nobles 2 will work with the landowner and the USDA to remove the impacted portion of the enrolled parcel from the CRP program.⁴¹¹

198. In addition to those already discussed, the Draft Site Permit includes additional provisions related to agriculture. Section 5.2.4 requires Nobles 2 to implement measures to protect and segregate topsoil from subsoil on all lands unless otherwise negotiated with landowners.⁴¹² Section 5.2.5 requires Nobles 2 to minimize soil compaction, and Section 5.2.6 requires erosion prevention and sediment control practices.⁴¹³ Section 5.2.9 requires Nobles 2 to apply pesticides in a manner that avoids damage to crops.⁴¹⁴

199. Agricultural uses and wind development are generally compatible uses.⁴¹⁵ The Project will not significantly impact the agricultural land use or general character of the area.⁴¹⁶

ii. Mining

200. Mining resources in Nobles County include crushed rock, sand, and gravel, which are extracted primarily for road building materials.⁴¹⁷ There are several active and inactive gravel pits located in or around the Project area.⁴¹⁸

⁴⁰⁶ Ex. Nobles-7 at 48 (Revised SP Application).

⁴⁰⁷ *Id.* at 53.

⁴⁰⁸ *Id.* at 48.

⁴⁰⁹ *Id.* at 48; Ex. EERA-6 at 81-82 (ER); Draft Site Permit § 5.2.19 (May 25, 2018) (eDocket No. 20185-143331-01).

⁴¹⁰ Ex. Nobles-7 at 19 (Revised SP Application).

⁴¹¹ *Id.*

⁴¹² Draft Site Permit § 5.2.4 (May 25, 2018) (eDocket No. 20185-143331-01).

⁴¹³ *Id.*, §§ 5.2.5, 5.2.6.

⁴¹⁴ *Id.*, § 5.2.9.

⁴¹⁵ Ex. EERA-6 at 80 (ER).

⁴¹⁶ Ex. Nobles-7 at 47-48 (Revised SP Application).

⁴¹⁷ *Id.* at 49.

⁴¹⁸ *Id.*

201. No impacts to mining are expected from the Project, though Nobles 2 may utilize local resources for access road construction and will coordinate with the appropriate landowners to do so.⁴¹⁹

iii. Forestry

202. The Project area does not contain significant forestry resources, with forested areas comprising less than one percent of the Project area.⁴²⁰ It is possible some trees and limbs may need to be removed for installation and operation of the Project, and Nobles 2 will coordinate with affected landowners as needed for replacement of trees on private property.⁴²¹

iv. Tourism

203. Tourism is an important part of the economy in Nobles County and local municipalities.⁴²² Nobles County has annual traveler expenditures of \$27,632,132, equating to 718 tourism-related jobs in the area.⁴²³ Outdoor areas and activities are a draw for tourists, as are local festivals and fairs.⁴²⁴

204. Direct impacts on local tourism are not expected from the Project, and indirect impacts will be minimized because Project facilities will be located on private land, with setbacks from public lands, recreational trails, and roads.⁴²⁵

M. Archaeological and Historical Resources

205. Nobles 2 initiated coordination with the Minnesota State Historic Preservation Office (SHPO) in early 2016.⁴²⁶ SHPO recommended a Phase Ia archaeological assessment followed by a Phase I archaeological survey if recommended by the Phase Ia assessment.⁴²⁷

206. In February 2016, Westwood, on behalf of Nobles 2, conducted a Phase Ia cultural resources literature review of records at the SHPO and the Office of the State Archaeologist (OSA) for the Project area and a one-mile buffer surrounding the Project Area.⁴²⁸ Westwood's search identified 10 previously inventoried archaeological sites located within one mile of the proposed Project area.⁴²⁹ Three of those archaeological sites are located within the defined Project Area.⁴³⁰ None of these sites have been listed or determined to be eligible for listing on the National Register of

⁴¹⁹ *Id.*

⁴²⁰ *Id.* at 48.

⁴²¹ *Id.* at 49.

⁴²² *Id.*

⁴²³ *Id.* at 49-50.

⁴²⁴ *Id.* at 50.

⁴²⁵ *Id.*

⁴²⁶ *Id.* at 37.

⁴²⁷ *Id.*

⁴²⁸ *Id.* at 35, 37.

⁴²⁹ *Id.* at 35.

⁴³⁰ *Id.*

Historic Places (NRHP), although it is possible that not all of the sites have yet been evaluated.⁴³¹

207. The Phase Ia review also identified 22 previously inventoried historic architectural resources located within one mile of the proposed Project area.⁴³² Eight of these architectural resources are located within the defined Project area.⁴³³ Nobles 2 will avoid direct physical Project impacts upon the one NRHP listed architectural property located within the Project area, which is the Church of St. Kilian.⁴³⁴ The remaining resources have not been determined eligible for listing in the NRHP, although it is possible that not all of the resources have yet been evaluated.⁴³⁵

208. Nobles 2 will obtain and submit an updated Phase Ia report to the SHPO and it intends to have a Phase I archeological survey completed prior to Project construction.⁴³⁶

209. Nobles 2 will attempt to avoid archeological sites; however, the proposed construction activities for the Project may impact such sites or add to the visual impacts on cultural resources in the region of the Project Area.⁴³⁷ In the event that an impact occurs, Nobles 2 will determine the nature of the impact and consult with the SHPO as to whether the resource is eligible for listing in the NRHP.⁴³⁸ If such resources are eligible for the NRHP, Nobles 2 will adjust the Project layout where possible to avoid adverse effects to the resource. If avoidance is not possible, appropriate mitigative measures will need to be developed in consultation with SHPO, OSA, and consulting applicable American Indian communities, if any.⁴³⁹ Avoidance is the preferred action, but mitigation for Project-related impacts on NRHP-eligible archaeological and historic resources may include additional documentation through data recovery.⁴⁴⁰

210. The Draft Site Permit addresses protection of archeological and historical resources. Section 5.2.15 of the Draft Site Permit requires Nobles 2 to make every effort to avoid impacts to identified archaeological and historic resources.⁴⁴¹ If a resource is encountered, Nobles 2 must contact and consult with the SHPO and OSA, and Nobles 2 must avoid the resource where feasible.⁴⁴² If avoidance is not feasible, Nobles 2 must mitigate by making an effort to minimize Project impacts consistent with SHPO and OSA requirements.⁴⁴³ In addition, before construction, workers must be trained about the need to avoid cultural properties, how to identify cultural properties,

⁴³¹ *Id.*

⁴³² *Id.* at 36.

⁴³³ *Id.*

⁴³⁴ *Id.* at 37.

⁴³⁵ *Id.* at 36.

⁴³⁶ *Id.* at 37.

⁴³⁷ *Id.*

⁴³⁸ *Id.* at 37-38.

⁴³⁹ *Id.* at 38.

⁴⁴⁰ *Id.* at 38.

⁴⁴¹ Draft Site Permit § 5.2.15 (May 25, 2018) (eDocket No. 20185-143331-01).

⁴⁴² *Id.*

⁴⁴³ *Id.*

and procedures to follow if undocumented cultural properties are found.⁴⁴⁴ If human remains are found during construction, Nobles 2 must immediately halt construction at such location and promptly notify local law enforcement and OSA.⁴⁴⁵ Construction at such location shall not proceed until authorized by local law enforcement or OSA.⁴⁴⁶

N. Aviation

211. The Project area does not contain any registered airports or heliports.⁴⁴⁷ Airports within ten miles of the Project area include Slayton Municipal (9.4 miles to the north), Ramerth (8.3 miles to the east), and Worthington Municipal (9.2 miles to the southeast).⁴⁴⁸

212. Crop dusting is used in agricultural areas to spray treatment chemicals over large crop areas.⁴⁴⁹ Crop dusting is performed by small maneuverable aircraft or helicopters flying low to the ground, most often during daylight hours and by local pilots familiar with the area.⁴⁵⁰

213. Section 4.12 of the Draft Site Permit prohibits placement of turbines or associated facilities in a location that could create an obstruction to the navigable airspace of public and private airports.⁴⁵¹ Nobles 2 has sited the Project to meet setbacks to airport facilities required by MnDOT, Department of Aviation and Federal Aviation Administration (FAA) requirements.⁴⁵² Because the turbines Nobles 2 proposes to use have a maximum tip height of 492 feet, no additional permits or approvals are needed from MnDOT or the FAA based on turbine height.⁴⁵³

214. Nobles 2 will coordinate with the FAA to submit the proposed turbine locations and specifications for an aeronautical study by the FAA. The study will determine whether there is a hazard to air navigation associated with the Project.⁴⁵⁴ Construction and operation of the Project are not anticipated to cause adverse impacts to aviation.⁴⁵⁵

215. Nobles 2 will follow FAA guidelines for marking towers and implement necessary safety lighting.⁴⁵⁶ Nobles 2 will send notification of construction and operation of the Project to the FAA and will take steps to ensure compliance with FAA requirements.⁴⁵⁷ Permanent meteorological towers will have FAA mandated lighting

⁴⁴⁴ *Id.*

⁴⁴⁵ *Id.*

⁴⁴⁶ *Id.*

⁴⁴⁷ Ex. EERA-6 at 73 (ER).

⁴⁴⁸ *Id.*

⁴⁴⁹ Ex. Nobles-7 at 42 (Revised SP Application).

⁴⁵⁰ *Id.* at 42-43.

⁴⁵¹ Draft Site Permit § 4.12 (May 25, 2018) (eDocket No. 20185-143331-01).

⁴⁵² Ex. Nobles-7 at 42-43 (Revised SP Application).

⁴⁵³ Ex. EERA-6 at 74 (ER).

⁴⁵⁴ Ex. Nobles-7 at 43 (Revised SP Application); Ex. EERA-6 at 74 (ER).

⁴⁵⁵ Ex. Nobles-7 at 43 (Revised SP Application).

⁴⁵⁶ *Id.*; Ex. EERA-6 at 74 (ER).

⁴⁵⁷ Ex. Nobles-7 at 43 (Revised SP Application).

consistent with the turbines.⁴⁵⁸ Temporary meteorological towers will have supporting guy wires marked with colored sleeves for increased visibility.⁴⁵⁹

216. The FAA requires obstruction lighting of structures exceeding an elevation of 200 feet above average ground level because they are considered obstructions to air navigation.⁴⁶⁰ To mitigate the visual impact of such lighting, Nobles 2 will use FAA guidance and standards when applying to the FAA for approval of a lighting plan that will light the Project, and will follow the approved plan to meet the minimum requirements of FAA regulations for obstruction lighting.⁴⁶¹ It is anticipated that the FAA review of the Project will result in a “No Hazard” issuance determination.⁴⁶²

217. Nobles 2 and the DOC-EERA disagree about whether a permit condition should be imposed requiring the use of an Aircraft Detection Lighting System (ADLS). An ADLS is designed to mitigate the impact of lights at night by deploying a radar-based system around a wind farm, turning lights on only when low-flying aircraft are detected nearby.⁴⁶³ The FAA has approved commercial operation of ADLS for use at wind farms.⁴⁶⁴ The *InteliLight* ADLS developed by Vestas is an example.⁴⁶⁵ Currently, the Draft Site Permit provides in Section 6.1 that Nobles 2 will install an ADLS to mitigate the aesthetic and visual effects of the FAA’s aviation lighting requirements.⁴⁶⁶

218. Nobles 2 asserts that an ALDS is expensive, the area is already developed for wind farms that do not have an ADLS, and there is no guarantee that the FAA will approve an ALDS for the Project.⁴⁶⁷ Nobles 2 questions the efficacy of an ALDS for the Project as other wind farms nearby do not have this technology.⁴⁶⁸ Nobles 2 secured a quote for installation of the Vestas *InteliLight* ADLS for the Project, and learned that the addition of the system to the Project will cost approximately \$1,000,000 and require installation of two additional 30 meter lattice towers to hold the radar systems.⁴⁶⁹ Nobles 2 notes that ADLS technology is new and is in the early stages of securing approval from the FAA and FCC, with approvals by the FAA occurring on a case by case basis.⁴⁷⁰ Nobles 2 is concerned that the FAA may not approve an ADLS for the Project and that securing approval may not be possible in a manner to allow construction of the Project to go forward on its current schedule.⁴⁷¹

⁴⁵⁸ *Id.*

⁴⁵⁹ *Id.*

⁴⁶⁰ *Id.* at 24.

⁴⁶¹ *Id.*

⁴⁶² Ex. EERA-6 at 74 (ER).

⁴⁶³ *Id.* at 58.

⁴⁶⁴ *Id.*

⁴⁶⁵ *Id.*

⁴⁶⁶ Draft Site Permit § 6.1 (May 25, 2018) (eDocket No. 20185-143331-01).

⁴⁶⁷ Ex. Nobles-13 at 12-13 (Vala Direct).

⁴⁶⁸ *Id.* at 10; Ex. EERA-6 at 58 (ER).

⁴⁶⁹ Ex. Nobles-13 at 10 (Vala Direct).

⁴⁷⁰ *Id.*

⁴⁷¹ *Id.* at 11.

219. Nobles 2 proposes elimination of Draft Site Permit Section 6.1.⁴⁷² As an alternative to deletion of Section 6.1 of the Draft Site Permit, Nobles 2 proposes the following language:

The Permittee will use commercially reasonable efforts to receive FAA approval for an Aircraft Detection and Lighting System or other suitable light mitigating technology, in consultation with the Commission, as soon as practicable, and in any event by no later than March 1, 2019. Permittee may install an FAA approved lighting system without ADLS or other light mitigating components if:

- 1) The FAA denies the Permittee's application for an ADLS or other light mitigating technology;
- 2) Permittee is unable to secure FAA approval by March 1, 2019; or
- 3) The conditions attached to any FAA approval of a light mitigation system are commercially unreasonable.⁴⁷³

220. The DOC-EERA notes that, though other wind farms in the area do not have ADLS, the Commission may amend other LWECs site permits at any time in accordance with Minn. R. 7854.1300, subp. 2, if it finds good cause to require the other surrounding wind projects to install ADLS systems retroactively.⁴⁷⁴ The DOC-EERA notes that North Dakota recently passed legislation to update all windfarms to the ADLS standard retroactively, due to changes in current technology and the public benefit.⁴⁷⁵ The DOC-EERA does not agree that the increased cost of the Project due to ADLS is not justified.⁴⁷⁶ The DOC-EERA recognizes that some uncertainty exists about whether the FAA will approve ADLS for the Project.⁴⁷⁷ Therefore the DOC-EERA proposes that Section 6.1 of the Draft Site Permit be amended to state:

6.1 Obstruction Marking and Lighting. The Permittee shall install an Aircraft Detection and Lighting System (ADLS) to mitigate the aesthetic and visual effects of the FAA's aviation lighting requirements. Permittee may install an FAA approved lighting system without ADLS if the Permittee

⁴⁷² See Nobles 2 Power Partners, LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations at 29-30 (July 11, 2018) (eDocket 20187-144725-02).

⁴⁷³ See *id.* at 30.

⁴⁷⁴ See EERA Comments and Recommendations at 3-4 (July 25, 2018) (eDocket No. 20187-145126-01); EERA Edits of Nobles 2 Power Partners LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations at 31 (July 25, 2018) (eDocket No. 20187-145216-01).

⁴⁷⁵ EERA Comments and Recommendations at 4 (July 25, 2018) (eDocket No. 20187-145126-01).

⁴⁷⁶ EERA Edits of Nobles 2 Power Partners LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations at 31 (July 25, 2018) (eDocket No. 20187-145216-01).

⁴⁷⁷ EERA Comments and Recommendations at 4 (July 25, 2018) (eDocket No. 20187-145126-01).

demonstrates that, despite its reasonable efforts to secure FAA approval for an ADLS, one of the following conditions exists:

- 1) The FAA denies the Permittee's application for an ADLS system; or
- 2) Permittee is unable to secure FAA approval in a timely manner.

If either of these two conditions occur, the [P]ermittee's reasonable efforts to secure FAA approval of the ADLS must be described and filed with the Commission 14 days before the pre-construction meeting.⁴⁷⁸

221. If the Commission imposes a permit condition requiring ADLS or other light mitigating technology, Nobles 2 requests the ability to adjust its Project design accordingly to include the additional infrastructure necessary to accommodate the ADLS or other light mitigating technology.⁴⁷⁹

222. No adverse impacts to aviation are anticipated as a result of construction or operation of the Project.⁴⁸⁰ Nobles 2 will work with local landowners on coordinating crop dusting activities to reduce risk to local pilots.⁴⁸¹

223. Nobles 2 has taken steps to minimize and mitigate impacts to aviation.

O. Wildlife

224. Wildlife in the Project area consists of mammals, birds, reptiles, amphibians, fish, and insects, both resident and migratory, which utilize the habitat in the Project Area for forage, breeding, and shelter.⁴⁸² The majority of migratory wildlife species are birds, including waterfowl, raptors and songbirds, and migratory bat species.⁴⁸³

225. The Project area's historic vegetation has largely been replaced by agricultural development, so most of the wildlife species inhabiting the Project area include those typically found in heavily disturbed habitats.⁴⁸⁴ The majority of wildlife habitats in the Project area are small isolated areas of grassland, woodland areas found

⁴⁷⁸ *Id.*; EERA Edits of Nobles 2 Power Partners LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations at 32 (July 25, 2018) (eDocket No. 20187-145216-01).

⁴⁷⁹ Ex. Nobles-13 at 13 (Vala Direct).

⁴⁸⁰ Ex. Nobles-7 at 43 (Revised SP Application); see also Ex. EERA-6 at 74 (ER).

⁴⁸¹ Ex. Nobles-7 at 43 (Revised SP Application).

⁴⁸² Ex. EERA-6 at 32 (ER); Ex. Nobles-7 at 66-67 (Revised SP Application).

⁴⁸³ Ex. EERA-6 at 32 (ER).

⁴⁸⁴ *Id.*; Ex. Nobles-7 at 66 (Revised SP Application).

along shelter belts and stream and river margins, the weedy edges of fields, as well as poorly maintained fields within agricultural areas.⁴⁸⁵

226. Local species use the grasslands, farm woodlots, wetlands, and other areas for food and cover.⁴⁸⁶ Mammals common to this landscape include opossum, skunk, squirrels, rodents, rabbits, deer, fox, coyotes, and raccoons.⁴⁸⁷ Reptiles and amphibians are associated with wetlands, waterways and forested stretches throughout the Project area.⁴⁸⁸ Reptiles and amphibians include snakes, turtles, and frogs.⁴⁸⁹ Several species of birds and bats are also known to occur in this landscape, including grassland birds, migratory birds, raptors, and waterfowl.⁴⁹⁰

227. Nobles 2 followed the suggested tiered approach as outlined in the USFWS Wind Energy Guidelines (WEG) by documenting preliminary site evaluation (Tier 1) and characterization (Tier 2), pre-construction field studies and impact prediction (Tier 3), and post-construction monitoring studies and impact assessment (Tiers 4 and 5).⁴⁹¹ Nobles 2 conducted Tier 1 and 2 analyses for the Project Area to screen for potential broad-based environmental and site development issues and to guide site design.⁴⁹² A Site Characterization Study (SCS) and a Work Plan for 2016 Pre-Construction Avian and Bat Surveys was prepared and shared with the USFWS, MnDNR, and DOC-EERA as part of early agency coordination efforts.⁴⁹³ The SCS was incorporated into Nobles 2's BBCS. Tier 3 field studies informed the Project proponents and regulatory agencies regarding avian and bat species present within and adjacent to the Project area boundary.⁴⁹⁴ Pre-construction avian surveys were initiated in mid-January 2016, and were completed in late-March 2017, for one full year of avian use data collection.⁴⁹⁵

228. Nobles 2 corresponded with state and federal agencies, including the MnDNR, USFWS, and DOC-EERA in January 2016 for information specific to the Project regarding sensitive resources and potential impacts.⁴⁹⁶ On March 18, 2016, Nobles 2 submitted a letter to the MnDNR requesting its comments on the Project, which at that time was an up to 300 MW Project consisting of approximately 150 turbines.⁴⁹⁷ On April 14, 2016, the MnDNR provided comments on the Project and indicated it assigned the Project with a medium risk designation due to the proposed 300 MW capacity of the facility.⁴⁹⁸ MnDNR did not provide any comment on the location

⁴⁸⁵ Ex. Nobles-7 at 66 (Revised SP Application).

⁴⁸⁶ Ex. EERA-6 at 32 (ER).

⁴⁸⁷ *Id.*

⁴⁸⁸ *Id.* at 32-33.

⁴⁸⁹ *Id.* at 33.

⁴⁹⁰ *Id.*

⁴⁹¹ Ex. Nobles-7 at 64 (Revised SP Application).

⁴⁹² *Id.*

⁴⁹³ *Id.*

⁴⁹⁴ *Id.* at 64-65.

⁴⁹⁵ *Id.* at 65.

⁴⁹⁶ *Id.* at 64.

⁴⁹⁷ *Id.* at 64-65.

⁴⁹⁸ *Id.*; Ex. Nobles-14 at 5-6 (Finocchiaro Direct).

of WMAs or WPAs within or adjacent to the Project Area, but did reserve the right to make further comment after the SP Application was submitted.⁴⁹⁹

229. After receipt of the MnDNR's letter dated April 14, 2016, Nobles 2 reduced the overall size of the Project to an up to 260 MW project consisting of between 65 to 82 turbines. The overall size of the Project Area has been reduced by more than 30,000 acres, and turbine siting has taken into consideration the avoidance of potential bat habitat.⁵⁰⁰ Nobles 2 made these changes in part to be responsive to the MnDNR's concerns about the size of the Project and the number of operating turbines.⁵⁰¹ Nobles 2 proposes using larger nameplate capacity turbines than it originally proposed.⁵⁰² The changes resulted in 65 to 85 fewer turbines and a reduction of the amount of rotor wind swept area by approximately 20% from the original design.⁵⁰³ The use of turbines with a larger nameplate capacity will reduce the overall impacts of the Project on avian and bat species.⁵⁰⁴

230. The MnDNR provided additional comments on the revised Project and again noted that it considers the Project risk as moderate due to the number of operational turbines planned for the site and the location of turbines surrounding large blocks of habitat associated with the Swessinger, Einck, Fenmont, and County Line WMAs.⁵⁰⁵ MnDNR indicated that it would consider a low risk designation if "numerous turbines are relocated farther from the habitat associated with the WMAs," but it did not identify the turbines that should be moved, the number of turbines that would need to be moved, or the distance the turbines should be moved, to obtain a low-risk designation.⁵⁰⁶ All turbines meet or exceed Commission wind access setback standards of three RD by five RD.⁵⁰⁷ The MnDNR indicated Nobles 2 would need to include three turbines near the WMAs in its post-construction fatality monitoring.⁵⁰⁸ Nobles 2 is willing to revise its post-construction monitoring protocol, in consultation with the MnDNR, to monitor three turbines near WMAs.⁵⁰⁹

231. The DOC-EERA recommended that the Site Permit be amended to reflect the moderate risk designation by the MnDNR, and that a special condition be added to the Site Permit, as follows:

6.2 Avian and Bat Protection Plan Special Provision. In keeping with the DNR assessment of the Project area as "moderate risk" for bird and bat fatalities, the Permittee shall

⁴⁹⁹ Ex. EERA-2 (Comments on Scope of Environmental Report and Draft Site Permit); Ex. Nobles-14 at 5-6 (Finocchiaro Direct); Ex. Nobles-7 at 64-65 (Revised SP Application).

⁵⁰⁰ Ex. Nobles-7 at 65 (Revised SP Application); Ex. Nobles-14 at 5-6 (Finocchiaro Direct).

⁵⁰¹ Ex. Nobles-14 at 6 (Finocchiaro Direct).

⁵⁰² *Id.*

⁵⁰³ Ex. Nobles-14 at 6 (Finocchiaro Direct).

⁵⁰⁴ Ex. Nobles-7 at 65 (Revised SP Application).

⁵⁰⁵ Ex. EERA-2 (Comments on Scope of Environmental Report and Draft Site Permit).

⁵⁰⁶ *Id.*

⁵⁰⁷ Ex. Nobles-14 at 6 (Finocchiaro Direct).

⁵⁰⁸ Ex. EERA-2 (Comments on Scope of Environmental Report and Draft Site Permit).

⁵⁰⁹ Ex. Nobles-14 at 6-7 (Finocchiaro Direct).

conduct one year of post-construction fatality monitoring for avian and bat species using survey protocols developed by the DNR specifically for moderate risk sites. The Permittee should consult with DNR for the availability of updated moderate risk protocols before commencing post-construction monitoring. The Commission may require additional monitoring based on results of the first year's data collection.⁵¹⁰

232. Nobles 2 has revised its BBCS, as follows: (1) Table 4-11 was revised to add overall bat passes per detection night; (2) the revised BBCS reflects the MnDNR's moderate risk assessment (see Sections 5.2.4 and 7.1); (3) fatality monitoring will occur two days per week and will include three turbines near WMAs (see Section 7.1.1.2); (4) Section 6.1.2(1)(b) was revised to reflect that all native prairie will be avoided, except as approved by the MnDNR; (5) Section 6.1(7) was revised to reflect that permanent met towers will not include guy wires; (6) the MnDNR's comment letters dated March 20, 2018, and July 11, 2018, were added to Appendix A.⁵¹¹ Nobles 2 will conduct one year of post-construction avian and bat fatality monitoring.⁵¹² Additionally, the BBCS is a living document throughout the life of the Project, and Nobles 2 will work with USFWS and the MnDNR to evaluate the findings of post-construction studies, formulate recommendations and definitions, and incorporate them into the BBCS on an ongoing basis.⁵¹³

233. Based on studies of existing wind power projects in the United States and Europe, the impact to wildlife would primarily occur to avian and bat populations.⁵¹⁴ Similar to other wind developments, there is a high likelihood that individual bird fatalities will occur at the Project, but it is unlikely to affect populations of most species, especially at a regional scale.⁵¹⁵

234. Studies of bird fatalities near wind farms show that fatalities will occur and that they will vary with bird type (e.g., raptor, waterfowl, passerine), habitat availability, and other resources available within the Project area.⁵¹⁶ Based on the results of post-construction monitoring at similar facilities located on agricultural landscapes in southern Minnesota, estimated bird carcass rates at the Project would likely be within the range found at other wind facilities in the region.⁵¹⁷

⁵¹⁰ EERA Comments and Recommendations at 2 (July 25, 2018) (eDocket No. 20187-145216-01); EERA Edits of Nobles 2 Power Partners LLC's Proposed Findings of Fact, Conclusions of Law, and Recommendations at 34 (July 25, 2018) (eDocket No. 20187-145216-01).

⁵¹¹ Nobles 2 Power Partners, LLC's Post-hearing Comments (July 25, 2018) (eDocket No. 20187-145201-02); Revised Bird and Bat Conservation Strategy (July 25, 2018) (eDocket No. 20187-145201-03); Revised Bird and Bat Conservation Strategy Part 2 (July 25, 2018) (eDocket No. 20187-145201-04).

⁵¹² Ex. Nobles-7 at 71 (Revised SP Application).

⁵¹³ *Id.* at 71-72.

⁵¹⁴ Ex. EERA-6 at 33-35 (ER).

⁵¹⁵ *See id.* at 33-35.

⁵¹⁶ *Id.* at 34.

⁵¹⁷ *Id.* at 33-34.

235. Bald eagle collisions with turbines are of additional concern as bald eagle populations have grown and expanded in Minnesota.⁵¹⁸ Bald eagles are subject to special protections under the Bald and Golden Eagle Protection Act (BGEPA), administered by the USFWS.⁵¹⁹ Bald eagles are present seasonally in the Project area, and the nearest occupied bald eagle nest is nearly nine miles from the Project boundary.⁵²⁰ The average rate of eagle use within the Project area is relatively low.⁵²¹

236. Bat fatality studies indicate a broad range of fatalities across the United States as a result of wind development.⁵²² Fatality rates are highest for migrating-tree roosting bat species, with the majority of fatalities occurring during the late summer and early fall migration (roughly July through October).⁵²³ Documented bat fatalities are highest in the eastern United States, while those in the Midwest represent a wide range of fatality rates.⁵²⁴ Post-construction fatality studies completed in Iowa, Minnesota, and Wisconsin show bat fatality estimates ranging from 1 to 24 bats per MW per year.⁵²⁵

237. Nobles 2 conducted bat acoustic surveys from May through October 2016.⁵²⁶ Among the types of bats determined to be present, three special-status bat species were identified during the acoustic survey effort, the big brown bat, little brown bat, and tri-colored bat.⁵²⁷ While each of these species has been reported among fatalities at operating wind energy developments across the United States, the Project is designed to be a low-risk site for bats.⁵²⁸ The Project Area does not contain distinct topography, unique habitats or resources, or other features that could concentrate bats or bat activity, and no indicators of high bat risk in the Project Area (e.g., impacts to roost trees or hibernaculum, high volume use as a migration corridor, etc.) were discovered during either the desktop evaluations or the annual passive acoustic bat monitoring.⁵²⁹ Based on available data from operational wind projects in Minnesota and elsewhere in the Midwest, bat fatalities at the Project are expected to occur at a low frequency and be comparable with that of other Midwest wind energy facilities.⁵³⁰ Impacts are not expected to adversely affect bat populations.⁵³¹

238. The Project may cause displacement of some bird species from the Project area due to increased human activity or the presence of tall structures, though clearing of habitat will be minimal.⁵³² Many of the most-observed bird species within the

⁵¹⁸ *Id.* at 34.

⁵¹⁹ *Id.*

⁵²⁰ *Id.*

⁵²¹ *Id.*

⁵²² *Id.* at 35.

⁵²³ *Id.*

⁵²⁴ *Id.*

⁵²⁵ *Id.*

⁵²⁶ *Id.*; Ex. Nobles-7 at 77-78 (Revised SP Application).

⁵²⁷ Ex. Nobles-7 at 77 (Revised SP Application).

⁵²⁸ *Id.* at 79; Ex. EERA-6 at 35 (ER).

⁵²⁹ Ex. Nobles-7 at 79 (Revised SP Application); Ex. EERA-6 at 35 (ER).

⁵³⁰ Ex. Nobles-7 at 79 (Revised SP Application); Ex. EERA-6 at 35-36 (ER).

⁵³¹ Ex. EERA-6 at 35 (ER); Ex. Nobles-7 at 79 (Revised SP Application).

⁵³² Ex. EERA-6 at 33 (ER).

Project Area are common, disturbance-tolerant species, similar to the results of surveys at other wind energy facilities in the region.⁵³³

239. Permanent and temporary loss of habitat as a result of construction activities could affect some small mammal, reptile, and/or amphibian species with very limited home ranges and mobility.⁵³⁴ The impact is likely to be moderate in the short term and be reduced over time as reclaimed areas produce suitable habitats.⁵³⁵ Most of these wildlife species would be common and widely distributed throughout the Project Area and the loss of some individuals as a result of habitat removal would have a negligible impact on populations of these species throughout the region.⁵³⁶

240. The potential for habitat fragmentation impacts as a result of the Project is low because the Project area is primarily agricultural and much of the remaining habitat is disturbed. The Project is designed to avoid placing turbines and access roads in MnDNR-mapped native prairie, native plant communities, and sites of biodiversity significance.⁵³⁷ At a minimum, wind turbines will be placed at least five rotor diameters or three rotor diameters, depending on wind direction and property location, from identified conservation lands within and adjacent to the proposed Project.⁵³⁸

241. Nobles 2 proposes to minimize impacts to wildlife by implementing numerous mitigation measures, including but not limited to, performing one year of post-construction avian and bat mortality monitoring, installation of bird flight diverters on all new overhead transmission lines, if any, to be built near sensitive habitat areas to minimize risks to waterfowl and other birds, implementation of a Wildlife Incident Reporting System (WIRS) at the start of operations that will remain active for the life of the Project, and following the guidelines developed by the Avian Power Line Interaction Committee (APLIC) working group as they are written at the time of installation for all conductor wire spacing and other features.⁵³⁹ Additionally, Nobles 2 will implement feathering of turbine blades when operating below the cut-in-speed, as specified by the wind turbine generator manufacturer, during the period beginning April 1 and ending October 31 of each year, from one-half hour before sunset to one-half hour after sunrise, through the life of the Project.⁵⁴⁰

242. The Draft Site Permit contains provisions related to protection of wildlife resources, specifically avian and bat protection, through protection and mitigation measures and reporting requirements.⁵⁴¹

⁵³³ *Id.*

⁵³⁴ Ex. Nobles-7 at 68 (Revised SP Application).

⁵³⁵ *Id.*

⁵³⁶ Ex. Nobles-7 at 68 (Revised SP Application).

⁵³⁷ Ex. EERA-6 at 33 (ER).

⁵³⁸ *Id.*

⁵³⁹ Ex. Nobles-7 at 70-71 (Revised SP Application).

⁵⁴⁰ Ex. Nobles-14 at 2-3 (Finocchiaro Direct).

⁵⁴¹ See Draft Site Permit §§ 7.5.1, 7.5.2, 7.5.3, 7.5.4 (May 25, 2018) (eDocket No. 20185-143331-01).

P. Rare and Unique Natural Resources

243. A review of the Natural Heritage Information System (NHIS) database and endangered and threatened species lists from the MnDNR and USFWS was conducted to identify special-status species known or likely to occur in the Project area.⁵⁴² Results from the MnDNR NHIS database review for the Project area indicated four records of listed species in and within one mile of the Project area.⁵⁴³ Review of the USFWS Information Planning and Conservation System (IPaC) identified four federally listed threatened or endangered species as potentially occurring within the Project Area and surrounding region.⁵⁴⁴ These include the prairie bush-clover, Dakota skipper, Topeka shiner, and the northern long-eared bat.⁵⁴⁵

244. Based on information from both Federal and State sources, 6 special-status plant species and 32 special-status animal species were identified as potentially occurring within the Project Area and surrounding region.⁵⁴⁶ Of these, five animal species have a “moderate” potential to occur in the Project vicinity.⁵⁴⁷ The remaining species listed as “low” are not expected to occur on or adjacent to the Project due to specific habitat requirements not identified in the Project area.⁵⁴⁸

245. The Project area is mostly cultivated cropland.⁵⁴⁹ Land cover mapping indicates that grassland and pasture areas account for less than four percent of the Project area and are highly fragmented across the Project.⁵⁵⁰ The Project is designed to avoid placing turbines and access roads in MnDNR-mapped native prairie, native plant communities, and sites of biodiversity significance.⁵⁵¹

246. The Project area contains Minnesota Biological Survey sites (MBS) and sites of biodiversity significance (SBS).⁵⁵² There are approximately 956 acres of SBSs located within the Project Area, of which 818 acres (86 percent) are classified as “below the minimum biodiversity significance threshold” and 133 acres (14 percent) are classified as “moderate biodiversity significance.”⁵⁵³ The SBS sites within the Project Area encompass mapped MnDNR native plant communities, which are located primarily along stream corridors, and buffer lake and wetland complexes.⁵⁵⁴ The one MCBS site rated as “high” is located adjacent to the northwest boundary of the Project Area.⁵⁵⁵ Based on the ecological significance of moderately and highly ranked MBS sites, the

⁵⁴² Ex. Nobles-7 at 72 (Revised SP Application).

⁵⁴³ *Id.*

⁵⁴⁴ *Id.*

⁵⁴⁵ *Id.*

⁵⁴⁶ *Id.*; Ex. EERA-6 at 45 (ER).

⁵⁴⁷ Ex. Nobles-7 at 72 (Revised SP Application); Ex. EERA-6 at 45 (ER).

⁵⁴⁸ Ex. Nobles-7 at 72 (Revised SP Application); Ex. EERA-6 at 45 (ER).

⁵⁴⁹ Ex. EERA-6 at 39 (ER).

⁵⁵⁰ *Id.* at 39-40; Ex. Nobles-7 at 59 (Revised SP Application).

⁵⁵¹ Ex. EERA-6 at 33 (ER).

⁵⁵² Ex. Nobles-7 at 61 (Revised SP Application); Ex. EERA-6 at 41-42 (ER).

⁵⁵³ Ex. EERA-6 at 41 (ER).

⁵⁵⁴ *Id.*

⁵⁵⁵ *Id.*

MnDNR recommends that these areas be avoided within the Project area.⁵⁵⁶ The MnDNR also recommends avoidance of any “below” ranked MBS sites that contain native prairie.⁵⁵⁷

247. Though some impacts to vegetation will occur, especially in connection with the construction phase of the Project,⁵⁵⁸ Nobles 2 has taken steps to avoid and minimize impacts to rare and unique natural features, and proposes mitigation measures.⁵⁵⁹

248. The Draft Site Permit also contains conditions to monitor and mitigate the Project’s potential impacts on rare and unique natural resources. Section 4.7 requires the Permittee to prepare a prairie protection and management plan in consultation with MnDNR.⁵⁶⁰

Q. Vegetation

249. As noted above, the majority of the land within the Project area is cultivated cropland (88.6 percent),⁵⁶¹ and grassland and pasture areas account for less than four percent of the Project area and are highly fragmented across the Project.⁵⁶² Based on MnDNR data there are no railroad right-of-way prairies in the Project Area.⁵⁶³

250. There is a large native plant community complex approximately 6.5 miles northwest of the Project area, and an additional complex is located north of the Project area.⁵⁶⁴ Native plant community data indicates the presence of native prairie remnants within the Project Area and there is the potential for additional native prairie remnants to be identified.⁵⁶⁵ Field surveys of identified potential native prairie areas will be conducted in the future as part of Project siting and planning.⁵⁶⁶

251. Vegetation will be removed as a result of surface disturbing activities associated with blading, grading, vehicular traffic, and trenching.⁵⁶⁷ Construction of the Project will disturb approximately 115 acres of vegetation,⁵⁶⁸ including approximately 111 acres of cultivated crops, 3 acres of disturbed/developed, less than 1 acre of grassland, and 1 acre of wetland.⁵⁶⁹ Areas adjacent to the proposed wind turbine generator pad sites, access roads, and underground electrical collection system will be

⁵⁵⁶ *Id.* at 42; Ex. Nobles-7 at 61 (Revised SP Application).

⁵⁵⁷ Ex. Nobles-7 at 61 (Revised SP Application); Ex. EERA-6 at 42 (ER).

⁵⁵⁸ Ex. Nobles-7 at 61-62 (Revised SP Application).

⁵⁵⁹ *Id.* at 62-63.

⁵⁶⁰ Draft Site Permit § 4.7 (May 25, 2018) (eDocket No. 20185-143331-01); see also Nobles 2 Power Partners, LLC’s Post-hearing Comments (July 25, 2018) (eDocket No. 20187-145201-02).

⁵⁶¹ Ex. Nobles-7 at 59 (Revised SP Application); Ex. EERA-6 at 80 (ER).

⁵⁶² Ex. EERA-6 at 39-40 (ER); Ex. Nobles-7 at 59 (Revised SP Application).

⁵⁶³ Ex. EERA-6 at 41 (ER).

⁵⁶⁴ *Id.* at 40-41.

⁵⁶⁵ *Id.* at 41.

⁵⁶⁶ *Id.*

⁵⁶⁷ Ex. Nobles-7 at 62 (Revised SP Application).

⁵⁶⁸ *Id.*

⁵⁶⁹ *Id.*

temporarily disturbed in connection with equipment access, materials, stockpile locations, and workspace requirements.⁵⁷⁰

252. The Project is designed to avoid placing turbines and access roads in MnDNR-mapped native prairie, native plant communities, and sites of biodiversity significance.⁵⁷¹ It is expected that over 96 percent of all direct and indirect impacts to vegetation would be minor in extent and limited to cultivated cropland.⁵⁷² Nobles 2 will avoid and minimize direct and indirect impacts to natural vegetation communities to the extent practicable.⁵⁷³ Proposed turbine locations will be sited primarily on agricultural lands and access roads and collection lines can be sited and connected to public roads while avoiding woodlands, shrub land, grasslands, and water resources to the extent practicable.⁵⁷⁴ Further, implementation of the recommended and required mitigation measures for vegetation will avoid or minimize the potential for affecting sensitive natural communities and reduce the impact to a less than significant level.⁵⁷⁵

253. Nobles 2 has incorporated mitigation measures into the siting, construction, operations, and decommissioning phases of the proposed Project, including but not limited to: siting turbines in agricultural fields to minimize impacts to grassland, forest, wetland, and other native vegetation communities; for the proposed turbine layout, all native prairie will be avoided to the maximum extent practicable; creation of new roads will be minimized to the maximum extent practicable and to accommodate landowner preferences; temporary disturbed areas will be allowed to revegetate; and following construction, depending on seed availability and landowner preferences, non-agricultural areas will be re-seeded and stabilized using native seed to restore natural habitat.⁵⁷⁶

254. Additionally, best management practices (BMPs) will be used to avoid the introduction and spread of invasive species.⁵⁷⁷ BMPs will also be used to protect topsoil and adjacent resources and to minimize soil erosion.⁵⁷⁸

255. Section 4.7 of the Draft Site Permit 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.⁵⁷⁹ As native prairie has been identified within the Project boundaries, Nobles 2 must also prepare a prairie protection and management plan in consultation with the MnDNR.⁵⁸⁰ The plan must address steps to avoid impacts to native prairie and mitigation to

⁵⁷⁰ *Id.* at 62; Ex. EERA-6 at 42 (ER).

⁵⁷¹ Ex. EERA-6 at 33, 42-44 (ER); Ex. Nobles-7 at 62-63 (Revised SP Application).

⁵⁷² Ex. Nobles-7 at 62 (Revised SP Application).

⁵⁷³ *Id.*

⁵⁷⁴ *Id.*

⁵⁷⁵ Ex. Nobles-7 at 62 (Revised SP Application); Ex. EERA-6 at 42 (ER).

⁵⁷⁶ Ex. Nobles-7 at 62-64 (Revised SP Application).

⁵⁷⁷ *Id.* at 63-64.

⁵⁷⁸ *Id.* at 53.

⁵⁷⁹ Draft Site Permit § 4.7 (May 25, 2018) (eDocket No. 20185-143331-01).

⁵⁸⁰ *Id.*; Nobles 2 Power Partners, LLC's Post-hearing Comments (July 25, 2018) (eDocket No. 20187-145201-02).

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 Nobles 2, the MnDNR, and the Commission.⁵⁸¹

256. Nobles 2 has taken steps to avoid and minimize impacts to vegetation. Further, the Draft Site Permit contains conditions to monitor and mitigate the Project's potential impacts on vegetation.⁵⁸²

R. Soils, Geologic, and Groundwater Resources

257. Two soil associations are mapped across the majority of the Project Area: the Everly-Sac-Rushmore association and the Webster-Clarion-Nicollet association.⁵⁸³ The region is dominated by loamy, well-drained soils, and approximately 41 percent of the soil within the Project is prime farmland.⁵⁸⁴

258. Approximately 79 acres of prime farmland could be impacted by construction and operation of the Project.⁵⁸⁵ It is anticipated that the combined total areas of permanent disturbance to soils within the Project Area would not exceed 116 acres.⁵⁸⁶

259. Nobles 2 will acquire from the MPCA a National Pollutant Discharge Elimination System (NPDES) permit to discharge stormwater from construction facilities.⁵⁸⁷ In addition, Nobles 2 will develop an SWPPP prior to construction that will include BMPs to protect topsoil and adjacent resources and to minimize soil erosion and sedimentation.⁵⁸⁸ Construction-related soil erosion will be minimized by siting turbines and access roads to avoid highly erodible soils on steep slopes.⁵⁸⁹ Avoiding steep topography will also reduce the size of cut and fill areas.⁵⁹⁰ Erosion control measures will also be implemented during construction to avoid or minimize soil erosion and off-site deposition.⁵⁹¹

260. Nobles 2 will work with landowners in the Project Area to site turbines and access roads so as to minimize impacts to high quality farmland to the extent practicable; however, overall impacts to agriculture as a result of the Project are anticipated to be short term, minimal and are not expected to significantly alter crop

⁵⁸¹ Draft Site Permit § 4.7 (May 25, 2018) (eDocket No. 20185-143331-01).

⁵⁸² *Id.*, §§ 5.2.8, 5.2.10; 5.2.11.

⁵⁸³ Ex. EERA-6 at 31 (ER).

⁵⁸⁴ *Id.*

⁵⁸⁵ Ex. Nobles-7 at 53 (Revised SP Application); Ex. EERA-6 at 31 (ER).

⁵⁸⁶ Ex. Nobles-7 at 53 (Revised SP Application).

⁵⁸⁷ *Id.* at 79, 99; Ex. EERA-6 at 26 (ER).

⁵⁸⁸ Ex. Nobles-7 at 53, 79, 99 (Revised SP Application); Ex. EERA-6 at 26 (ER).

⁵⁸⁹ Ex. Nobles-7 at 53 (Revised SP Application).

⁵⁹⁰ *Id.*

⁵⁹¹ *Id.* at 53, 79.

production.⁵⁹² Additionally, the landowners will be compensated for lost production in accordance with the terms of their lease agreements with Nobles 2.⁵⁹³

261. Impacts to geologic and groundwater resources are not anticipated.⁵⁹⁴ Construction and operation of the proposed Project is not expected to impact groundwater quantity and quality within the region.⁵⁹⁵ Geotechnical testing will occur at turbine locations prior to final design and construction.⁵⁹⁶

262. Potential water-related needs will be minimal and can be accommodated locally.⁵⁹⁷ There may be a short-term impact to water supply during construction if a water appropriation permit is needed for an on-site concrete batch plant.⁵⁹⁸ The O&M building may require a new water supply well, the usage of which would be expected to be similar to the average household volume of less than five gallons per minute.⁵⁹⁹

263. There are no mapped karst areas or caves within the Project area.⁶⁰⁰

264. Nobles 2 has taken steps to avoid and minimize impacts to soils, geologic, and groundwater resources. The Draft Site Permit contains conditions to monitor and mitigate the Project's potential impacts on soils, geologic, and groundwater resources.⁶⁰¹

S. Surface Water and Wetlands

265. The Project area is located within the Des Moines River and Rock River watersheds, and is within the Missouri River water basin.⁶⁰²

266. Water resources and land cover mapping suggest that less than six percent of the total Project area is wetland or other water resources.⁶⁰³

267. Wetlands are not a common feature in the Project Area.⁶⁰⁴ The National Wetlands Inventory (NWI) identifies approximately 922 wetlands within the Project area, comprising 2,242 acres, or approximately 5.3 percent of the Project area.⁶⁰⁵ There are also 109 acres of MnDNR Public Water Inventory (PWI) Lakes and Wetlands within the

⁵⁹² *Id.* at 53.

⁵⁹³ *Id.*

⁵⁹⁴ *Id.* at 54.

⁵⁹⁵ *Id.*

⁵⁹⁶ *Id.*; Ex. EERA-6 at 20-21 (ER).

⁵⁹⁷ Ex. Nobles-7 at 54 (Revised SP Application).

⁵⁹⁸ Ex. EERA-6 at 20 (ER).

⁵⁹⁹ Ex. Nobles-7 at 54 (Revised SP Application).

⁶⁰⁰ *Id.* at 52.

⁶⁰¹ Draft Site Permit §§ 5.2.6 (May 25, 2018) (eDocket No. 20185-143331-01).

⁶⁰² Ex. EERA-6 at 21 (ER).

⁶⁰³ Ex. Nobles-7 at 54 (Revised SP Application).

⁶⁰⁴ Ex. EERA-6 at 24 (ER).

⁶⁰⁵ Ex. Nobles-7 at 55 (Revised SP Application).

Project area, including portions of Penning Marsh, Willow Lake, and Groth Marsh, and other unnamed wetlands.⁶⁰⁶

268. There are no calcareous fens located within the Project Area.⁶⁰⁷ There are no MnDNR-designated Wildlife Lakes, Sensitive Lakeshores, Migratory Waterfowl Feeding and Resting Areas, or any State Wild, Scenic, or Recreation Rivers, within the Project Area or one-mile buffer.⁶⁰⁸ There are also no outstanding resource value waters, sensitive lakeshore, or trout streams or lakes within the Project area.⁶⁰⁹ Champepadan Creek located northwest of the Project area is a state-wide area of importance for the state-listed threatened Blanding's turtle and plains topminnow.⁶¹⁰ In addition, portions of Champepadan Creek and Kanaranzi Creek outside of the Project Area are federally designated critical habitat for the Topeka Shiner.⁶¹¹

269. Of the mapped streams and ditches within the Project area, Jack Creek (North Branch) is listed as impaired for turbidity by the MPCA.⁶¹² The portion of Jack Creek that is classified as perennial is located in the southeastern corner of the Project area where no infrastructure is proposed for the Project.⁶¹³ Elk Creek is also impaired for turbidity and is approximately 0.70 miles south-southwest of the Project boundary.⁶¹⁴ Nobles 2 will implement the necessary best management practices during construction as specified in the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Construction Stormwater permit (GSC). Should the Project discharge to an impaired water with a construction-related parameter, the SWPPP will need to be submitted to the MPCA for review and approval.⁶¹⁵

270. Based on publicly available desktop National Wetlands Inventory (NWI), National Hydrography Dataset (NHD) and MN PWI data sources, there are no turbines located within close proximity to perennial streams.⁶¹⁶

271. There are three general areas within the Project area associated with Federal Emergency Management Agency (FEMA) mapped floodplains.⁶¹⁷ However, none of the proposed turbines, the substation, or access roads are located within a FEMA designated 100-year floodplain (FEMA floodplain).⁶¹⁸ Underground electrical collection lines cross beneath three FEMA floodplain areas in proposed locations and one FEMA floodplain location associated with proposed collection alternate.⁶¹⁹

⁶⁰⁶ *Id.*

⁶⁰⁷ *Id.* at 56.

⁶⁰⁸ Ex. EERA-6 at 22 (ER).

⁶⁰⁹ *Id.*

⁶¹⁰ *Id.*

⁶¹¹ *Id.*

⁶¹² Ex. Nobles-7 at 56 (Revised SP Application).

⁶¹³ Ex. EERA-6 at 21 (ER).

⁶¹⁴ Ex. Nobles-14 at 8 (Finocchairo Direct).

⁶¹⁵ *Id.*

⁶¹⁶ Ex. EERA-6 at 22 (ER).

⁶¹⁷ *Id.*; Ex. Nobles-7 at 56 (Revised SP Application).

⁶¹⁸ Ex. Nobles-14 at 9 (Finocchairo Direct).

⁶¹⁹ *Id.* at 10.

Nobles 2 removed three proposed access roads that were partially located within the FEMA floodplain; two portions of an alternate access road are located in margins of the FEMA floodplain, but are contemplated for creation only as contingency.⁶²⁰ If these alternate access roads become necessary, Nobles 2 will fulfill all the necessary federal, state, and local approval and/or permitting requirements.⁶²¹

272. Project facilities such as collection lines, access roads, crane paths, and the Project substation may impact surface water runoff.⁶²² These impacts will be temporary during construction of the Project and will be minimized to the extent possible.⁶²³ Impacts to surface waters are expected to be negligible.⁶²⁴ If access roads cross waterbodies, they will be designed to maintain stream flow by using culverts.⁶²⁵

273. The Project will be constructed on relatively high elevation portions of the Project Area to avoid direct impacts to surface waters, floodplains, and wetlands, which tend to be in lower topographical positions.⁶²⁶ Access roads and substations will be designed to minimize impacts to wetlands.⁶²⁷ Temporary impacts associated with electric feeder and collector lines, and crane paths, will also be minimized by siting to avoid wetland features.⁶²⁸ Installation of underground utilities will decrease impacts by boring under PWI as necessary.⁶²⁹ Turbine layouts under consideration are expected to have minimal impacts to wetlands based on completed field surveys of proposed turbine sites, access roads, and the O&M site and desktop review of NWI data of collection lines and crane path areas associated with the Project.⁶³⁰

274. If some wetlands are determined to be unavoidable, wetland delineations will be completed, proposed temporary and permanent impacts will be quantified for the Project, and a wetland replacement plan will be submitted for review by the U.S. Army Corps of Engineers (USACE), the Nobles Soil and Water Conservation District (SWCD), and the Minnesota Board of Water and Soil Resources (BWSR).⁶³¹ Nobles 2 will minimize wetland impacts in accordance with sequencing and replacement requirements of the Wetland Conservation Act (WCA) and Section 404 of the Clean Water Act (CWA).⁶³²

⁶²⁰ *Id.*

⁶²¹ *Id.*; Ex. EERA-6 at 23 (ER).

⁶²² Ex. EERA-6 at 23 (ER).

⁶²³ *Id.*

⁶²⁴ *Id.*

⁶²⁵ *Id.*

⁶²⁶ *Id.* at 25.

⁶²⁷ *Id.*

⁶²⁸ *Id.*

⁶²⁹ *Id.*

⁶³⁰ *Id.*

⁶³¹ Ex. Nobles-7 at 57 (Revised SP Application).

⁶³² *Id.*

275. As requested by MPCA, Nobles 2 will maintain a distance of 50 feet between construction activities and surface waters whenever practicable.⁶³³ If such separation is not practicable, Nobles 2 will install redundant down-gradient sediment controls to protect surface waters.⁶³⁴

276. Nobles 2 has taken steps to avoid and minimize impacts to surface water and wetlands. The Draft Site Permit contains conditions that address potential impacts. For example, Section 4.6 of the Draft Site Permit 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.⁶³⁵ Section 5.2.7 of the Draft Site Permit includes additional provisions related to wetlands, including a requirement that construction in wetlands occur during frozen ground conditions to minimize impacts, to the extent feasible.⁶³⁶ When winter construction is not possible, wooden or composite mats shall be used to protect wetland vegetation.⁶³⁷ Further, wetland and water resources disturbed by construction will be restored to pre-construction conditions, in accordance with applicable permits and landowner agreements.⁶³⁸

T. Air and Water Emissions

277. The Project will not emit criteria pollutants (sulfur dioxide, nitrogen oxides, carbon dioxide, and particulate matter) or mercury during operation.⁶³⁹ Emission impacts from construction will be minimal and localized and would include dust and emissions from construction equipment, similar to large-scale construction activities such as road work or residential development.⁶⁴⁰ The Project's wind turbines will not produce ozone or ozone precursors.⁶⁴¹ Ozone production can occur adjacent to transmission lines under specific conditions.⁶⁴² There are no new transmission lines associated with the proposed Project. Therefore, there would be no additional ozone formation.⁶⁴³ Under certain conditions, transmission lines produce small amounts of ozone and nitrogen oxide emissions; the existing Nobles-Fenton 115 kV transmission line associated with the Project will likely experience some ozone production.⁶⁴⁴

⁶³³ Ex. Nobles-14 at 9 (Finocchairo Direct). Nobles 2 notes that landowners control the use of their land not occupied by Project infrastructure, including land within 50-feet of surface waters. Nobles 2 cannot require landowners to change their own existing land use within 50-feet of surface waters, including the planting of perennial vegetation to create 'natural buffers' if such vegetation does not currently exist. *Id.*

⁶³⁴ *Id.*

⁶³⁵ Draft Site Permit § 4.6 (May 25, 2018) (eDocket No. 20185-143331-01).

⁶³⁶ *Id.*, § 5.2.7.

⁶³⁷ *Id.*

⁶³⁸ *Id.*

⁶³⁹ Ex. EERA-6 at 14 (ER).

⁶⁴⁰ *Id.*

⁶⁴¹ *Id.* at 16.

⁶⁴² *Id.*

⁶⁴³ *Id.*

⁶⁴⁴ *Id.*

278. The Project would emit minimal hazardous air pollutants (HAPs) or volatile organic compounds (VOCs) during operation.⁶⁴⁵ Petroleum-based fluids used in the operation of wind turbines, such as gear box oil, hydraulic fluid, and gear grease, have a low vapor pressure, and any release of VOCs from these substances would be minimal.⁶⁴⁶

279. Operation of the proposed Project would not generate wastewater, but wastewater would be created by the O&M building.⁶⁴⁷ Nobles 2 will build an on-site septic system to serve the O&M facility.⁶⁴⁸ The potential impacts of this wastewater and septic system are anticipated to be minimal, and mitigation of the impacts, beyond ensuring a properly functioning septic system, is not anticipated.⁶⁴⁹

U. Solid and Hazardous Wastes

280. Potential hazardous materials within the Project area would be associated with agricultural activities, including petroleum products, pesticides, and herbicides.⁶⁵⁰

281. Petroleum products would also be present on site, such as oil and fuel, particularly during the construction phase of the Project.⁶⁵¹ The construction phase will also generate solid waste construction debris, such as scrap wood, plastics, cardboard, and scrap metals.⁶⁵²

282. Operation of the proposed Project is not expected to generate solid and hazardous waste materials.⁶⁵³ Small quantities of hydraulic oil, lube oil, grease, and cleaning flush will be maintained and stored at the O&M building, and as these fluids are replaced the waste products will be handled and disposed of through an approved disposal firm as required by regulations.⁶⁵⁴

283. Prior to construction, Nobles 2 will conduct an American Society for Testing and Materials (ASTM) conforming Phase I Environmental Site Assessment (ESA) within the Project area to identify and avoid potential hazardous waste sites.⁶⁵⁵

284. Potential hazardous materials will be properly managed, stored, and used in compliance with local, state, and federal guidelines for their use by trained technicians.⁶⁵⁶ If any wastes, fluids, or pollutants are generated during any phase of the operation of the Project, Nobles 2 will ensure that such substances are handled,

⁶⁴⁵ *Id.* at 15.

⁶⁴⁶ *Id.*

⁶⁴⁷ *Id.* at 19.

⁶⁴⁸ *Id.*

⁶⁴⁹ *Id.*

⁶⁵⁰ Ex. Nobles-7 at 44 (Revised SP Application).

⁶⁵¹ *Id.* at 45.

⁶⁵² Ex. EERA-6 at 27 (ER).

⁶⁵³ Ex. Nobles-7 at 45 (Revised SP Application).

⁶⁵⁴ *Id.* at 45-46; Ex. EERA-6 at 27 (ER).

⁶⁵⁵ Ex. EERA-6 at 27-28 (ER); Ex. Nobles-7 at 45 (Revised SP Application).

⁶⁵⁶ Ex. Nobles-7 at 45-46 (Revised SP Application).

processed, treated, stored, and disposed of in accordance with Minn. R. ch. 7045 (2017).⁶⁵⁷

285. Nobles 2 has taken steps to avoid and minimize potential impacts related to solid and hazardous wastes. The Draft Site Permit also contains conditions to monitor and mitigate the Project's potential impacts from solid and hazardous wastes. Section 5.2.22 of the Draft Site Permit requires that all waste and scrap produced through 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.⁶⁵⁸ In addition, Section 5.2.23 of the Draft Site Permit requires Nobles 2 to take all appropriate precautions against pollution of the environment and makes Nobles 2 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.⁶⁵⁹

V. Future Development and Expansion

286. The Project is located in southwest Minnesota, where there are already many other wind energy facilities.⁶⁶⁰

287. The Commission must site LW ECS "in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources."⁶⁶¹

288. Section 4.1 of the Draft Site Permit imposes a wind access buffer and provides for setbacks from properties where Nobles 2 does not hold wind rights.⁶⁶²

289. There is no evidence in the record to show that the Project is inconsistent with any future development or expansion plans.

W. Maintenance

290. Nobles 2 will make contractual arrangements with pre-qualified service providers for turbine service and maintenance, and a Nobles 2 affiliate or qualified third party will be responsible for the balance of operations and maintenance for the Project.⁶⁶³ The Project will have a full-time staff of technician, supervision, and management personnel.⁶⁶⁴

⁶⁵⁷ *Id.* at 46.

⁶⁵⁸ Draft Site Permit § 5.2.22 (May 25, 2018) (eDocket No. 20185-143331-01).

⁶⁵⁹ *Id.*, § 5.2.23.

⁶⁶⁰ Ex. Nobles-7 at 24 (Revised SP Application); Ex. EERA-6 at 53 (ER).

⁶⁶¹ Minn. Stat. § 216F.03.

⁶⁶² Draft Site Permit § 4.1 (May 25, 2018) (eDocket No. 20185-143331-01).

⁶⁶³ Ex. Nobles-7 at 94 (Revised SP Application).

⁶⁶⁴ *Id.*

291. On-site service and maintenance will include inspections, maintenance, and repair activities related to the turbines and systems, and Nobles 2 will also ensure necessary maintenance of access roads, drainage systems, and other facilities.⁶⁶⁵

X. Decommissioning, Turbine Abandonment, and Restoration

292. The Project's anticipated life is approximately 30 years beyond the date of first commercial operation, with the potential for repowering the facility in the future.⁶⁶⁶

293. Section 11.1 of the Draft Site Permit requires that Nobles 2 develop a Project decommissioning and restoration plan in accordance with the requirements of Minn. R. 7854.0500, subp. 13, prior to the Project's pre-operation meeting.⁶⁶⁷ The Draft Site Permit also requires that, at the end of commercial operation, the Project owners will be responsible for removing wind facilities and removing the turbine foundations to a depth of four feet below grade.⁶⁶⁸ Nobles 2's plan must identify surety and financial securities established for decommissioning and site restoration and provide cost estimates for decommissioning or turbine replacement or repowering.⁶⁶⁹

294. Nobles 2 requests the right to extend operations instead of decommissioning at the end of the site permit term.⁶⁷⁰ As necessary, Nobles 2 may apply for an extension of the LWECS Site Permit to continue Project operation.⁶⁷¹ In that case, it may be necessary to determine whether to continue operation with existing equipment or to retrofit the turbines and power system with upgrades based on newer technologies.⁶⁷²

295. The Draft Site Permit appropriately addresses decommissioning and restoration.

Y. Permit Conditions

296. The Draft Site Permit issued on May 25, 2018, includes proposed permit conditions, some of which have already been discussed above. These conditions relate to site preparation, construction, cleanup, restoration, operation, maintenance, abandonment, decommissioning, and other aspects of the Project.⁶⁷³

297. Many of the conditions contained in the Draft Site Permit were established as part of site permit proceedings related to other wind development Projects permitted by the Commission. The Draft Site Permit also reflects consideration of comments received by the Commission in connection with this Project.

⁶⁶⁵ *Id.*

⁶⁶⁶ *Id.*

⁶⁶⁷ Draft Site Permit § 11.1 (May 25, 2018) (eDocket No. 20185-143331-01).

⁶⁶⁸ *Id.*, § 11.2.

⁶⁶⁹ *Id.*, § 11.1.

⁶⁷⁰ Ex. Nobles-7 at 98 (Revised SP Application).

⁶⁷¹ *Id.*

⁶⁷² *Id.*

⁶⁷³ See generally Draft Site Permit (May 25, 2018) (eDocket No. 20185-143331-01).

298. Nobles 2 has proposed revisions to some terms of the Draft Site Permit and the DOC-EERA has proposed additional revisions. The revisions suggested by Nobles 2 and the DOC-EERA relate to existing or newly proposed Sections 2.0, 2.2, 4.5, 5.2.9, 6.1, 6.2, 10.3, 10.4.1, 12.6, and 14.0 of the Draft Site Permit. These proposed revisions are reflected in the chart below, with proposed additions underlined and proposed deletions stricken through. Where the Applicant and the DOC-EERA disagree, that disagreement is noted.

Section No.	Proposed Revision	Explanation for Proposed Revision
2.0	<p>The Nobles 2 Wind Project, when fully constructed and operational, will have a nameplate capacity up to 260 MW in Nobles County. The Project will consist of up to 82 wind turbines in a combination of models that will include at least 10 <u>and up to 21</u> Vestas V110-2.0 MW (80 meter hub height) turbines. The remainder will be <u>one of the following Vestas turbine models: V136-3.6 MW, V136-3.45 MW, V136-4.0 MW, or V136-4.2 MW</u> (82 meter hub height) turbines, as identified in the Permittee’s Site Permit Application.</p> <p>The project area includes approximately 42, 547 acres of land of which the Project currently holds leases <u>or easements</u> on 30,356 <u>33,991</u> acres, an amount sufficient to support the Project. Upon completion, the Project will permanently convert approximately 115.5 acres of land to wind turbines and associated facilities approved by this site permit.</p>	<p>Nobles 2 anticipates the use of a combination of V110-2.0 MW and larger nameplate capacity turbines as outlined in the Site Permit Application. Nobles 2 has selected the V136-3.6 MW turbine as its primary choice of turbine to complement the V110-2.0 turbines within the Project layout. However, if larger variants of the V136-3.6 MW are economical and commercially proven, Nobles 2 may elect to utilize one of the enumerated variants to reduce the number of turbines in the overall Project array. All V136 turbine models have similar siting requirements and spatial dimensions.</p> <p>Nobles 2 also updated the current status of acres in the Project area upon which Nobles 2 holds a land lease or wind easement.</p>
2.2	<p>Revise the sections of land in Bloom Township that are located within the Project boundary, i.e., 2-11, 15, 16, 18-22, 28-35</p>	<p>Revisions are necessary to reflect that Section 18 in Bloom Township is within the Project boundary.</p>
4.5	<p>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</p>	<p>Nobles 2 is proposing this modification to reflect that the type of legal enforceable agreement that may allow the placement of project infrastructure on public land could take the form of a lease,</p>

Section No.	Proposed Revision	Explanation for Proposed Revision
	<p>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 <u>easement, license or other enforceable agreement</u> with the Project Nobles 2. Wind turbines towers shall also comply with the setbacks of Section 4.1.</p>	<p>easement, license or other type of agreement and in most cases would not involve more than one type of agreement. For example, an electrical collector could be placed on public land pursuant to an easement or license agreement; whereas, a wind turbine is likely to be allowed via a lease.</p>
5.2.9	<p>The Permittee shall restrict pesticide use to those pesticides and methods of application approved by the Minnesota Department of Agriculture, Minnesota Department of Natural Resources, and the U.S. Environmental Protection Agency. 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 <u>application area(s)</u> at least 14 days prior to such application.</p>	<p>Nobles 2 is not opposed to providing notice of pesticide application to beekeepers with an active apiary near pesticide application areas. However, the Project area is comprised of 66 square miles of land. An additional 3-mile buffer of that 66 square miles area would result in notification of beekeepers located much more than 3 miles from the area where the pesticide will be applied. Nobles 2 believes the notification requirement is intended to protect apiaries that may be at risk of being inadvertently treated with pesticides and in order for that to happen the apiary would need to be relatively proximate to the pesticide application location. Therefore, compliance with the requirement, as proposed in the Draft Site Permit would be unreasonable and overly burdensome. As a compromise, Nobles 2 proposes to contact beekeepers known by Nobles 2 to have apiaries within three miles of the pesticide application area(s).</p>
6.1	<p>Nobles 2 Proposes that Section 6.1 be stricken as follows:</p>	<p>Nobles 2 does not believe that the Commission should require installation of an ADLS on the</p>

Section No.	Proposed Revision	Explanation for Proposed Revision
	<p>The Permittee shall install an Aircraft Detection Lighting System (ADLS) to mitigate the aesthetic and visual effects of the FAA's aviation lighting requirements.</p> <p>Alternatively, Nobles 2 proposes that Section 6.1 be amended to read:</p> <p><u>The Permittee will use commercially reasonable efforts to receive FAA approval for an Aircraft Detection and Lighting System or other suitable light mitigating technology, in consultation with the Commission, as soon as practicable, and in any event by no later than March 1, 2019. Permittee may install an FAA approved lighting system without ADLS or other light mitigating components if:</u></p> <ol style="list-style-type: none"> <u>1) The FAA denies the Permittee's application for an ADLS or other light mitigating technology;</u> <u>2) Permittee is unable to secure FAA approval by March 1, 2019; or</u> <u>3) The conditions attached to any FAA approval of a light mitigation system are commercially unreasonable.</u> <p>The DOC-EERA proposes that Section 6.1 read as follows:</p> <p><u>Obstruction Marking and Lighting</u></p> <p><u>The Permittee shall install an Aircraft Detection and Lighting System (ADLS) to mitigate the aesthetic and visual effects of the FAA's aviation lighting requirements. Permittee may install an FAA approved lighting system without ADLS if the Permittee demonstrates that, despite its reasonable efforts to secure FAA approval for an ADLS, one of the following conditions exists:</u></p>	<p>Project, for the reasons described in the findings above. If the Commission intends to impose a permit condition related to ADLS, Nobles 2 suggests an alternative to the current language of the Draft Site Permit.</p> <p>The DOC-EERA disagrees with Nobles 2 and recommends including a requirement for installation of an ADLS. The DOC-EERA believes that neither the cost of the system, nor Nobles 2's concerns regarding the lack of an ADLS in other surrounding wind farms, justify deleting the requirement for an ADLS entirely. The DOC-EERA recognizes that uncertainty exists regarding whether the FAA will approve an ADLS for the Project, as reflected in its proposed</p>

Section No.	Proposed Revision	Explanation for Proposed Revision
	<p>1) <u>The FAA denies the Permittee's application for an ADLS system, or</u> 2) <u>Permittee is unable to secure FAA approval in a timely manner.</u></p> <p><u>If either of these two conditions occur, the permittee's reasonable efforts to secure FAA approval of the ADLS must be described and filed with the Commission 14 days before the pre-construction meeting.</u></p>	<p>permit condition language.</p>
6.2	<p>The DOC-EERA proposes the addition of Section 6.2 as follows:</p> <p><u>Avian and Bat Protection Plan Special Provision</u></p> <p><u>In keeping with the DNR assessment of the Project area as "moderate risk" for bird and bat fatalities, the Permittee shall conduct one year of post-construction fatality monitoring for avian and bat species using survey protocols developed by the DNR specifically for moderate risk sites. The Permittee should consult with DNR for the availability of updated moderate risk protocols before commencing post-construction monitoring. The Commission may require additional monitoring based on results of the first year's data collection.</u></p>	<p>The DOC-EERA proposes this additional permit condition to reflect the MnDNR's assessment of the Project area as moderate risk for bird and bat fatalities and to require additional fatality monitoring. Consistent with the MnDNR's comments, Nobles 2 has amended its BBCS to reflect the moderate risk designation by the MnDNR and has agreed to conduct one year of post-construction fatality monitoring. Nobles 2 has also asserted that it will work with USFWS and the MnDNR to evaluate the findings of post-construction studies, formulate recommendations and definitions, and incorporate them into the BBCS on an ongoing basis.</p>
10.3	<p>Revise the first sentence of the second paragraph of Section 10.3 to provide:</p> <p>The Permittee may not commence construction until the <u>earlier of 30 days has expired after the pre-construction meeting or until when</u> 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</p>	<p>The language of the Draft Site Permit did not clearly indicate the time when the 30-day waiting period begins or whether the Permittee can begin construction if 30 days have passed and the Commission still has not advised the Permittee in writing that the planned construction is consistent with the permit. Nobles 2 thinks it is reasonable</p>

Section No.	Proposed Revision	Explanation for Proposed Revision
	this permit.	to tie the 30-day waiting period to the pre-construction meeting since the Permittee will be required to summarize the pre-construction meeting within 14 days of the pre-construction meeting, which would then provide the Commission with another 16 days to review the notes and any other filings to determine if all pre-construction filings are compliant with the Site Permit to allow construction to proceed. Moreover, in recognition of the schedule constraints present during construction, the Permittee should be able to proceed if the Commission has not acted within 30 days after the pre-construction meeting.
10.4.1	<p>Nobles 2 proposes that Section 10.4.1 read as follows:</p> <p><u>Construction Labor Status Reports</u></p> <p><u>The Permittee shall file quarterly reports with the Commission within 45 days of the end of the quarter regarding construction workers that participated in construction of the project. Reports shall include: (a) 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, during the quarter in which they participated in construction of the project; (b) the gross number of hours worked by or full-time equivalent workers of people who live in other states but are within 150 miles of the project; and (c) total gross hours or full-time equivalent workers. Permittee shall work with its contractor to determine suitable reporting metrics. Reports shall</u></p>	Nobles 2 has voluntarily committed to providing the Commission with quarterly reports documenting either gross hours worked or full-time equivalents represented by local workers for the construction of the Project. The Laborers' Union and Mankato Building and Trades were involved in the drafting of this proposed permit condition and are in agreement with the permit condition as drafted by Nobles 2.

Section No.	Proposed Revision	Explanation for Proposed Revision
	<p><u>begin with the commencement of site construction and continue until completion of site restoration.</u></p> <p>The DOC-EERA proposes alternative language for Section 10.4.1, as follows:</p> <p><u>Labor Statistics Report</u></p> <p><u>The Permittee shall file a post-construction Labor Statistics Report within 60 days of commencement of operation. The Report shall (a) detail the Permittee’s efforts and the site contractor’s efforts to hire Minnesota workers, and (b) provide an account of (1) 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; (2) the gross number of hours worked by or full-time equivalent workers who are residents of other states, but live within 150 miles of the project; and (3) 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.</u></p>	<p>The DOC-EERA supports a permit condition related to labor reporting, but believes that one post-construction report is preferable to quarterly reporting and is less onerous. The DOC-EERA favors that the permit condition require a description of Nobles 2’s hiring efforts.</p>
12.6	<p>Nobles 2 proposes revising this permit condition with the underlined terms:</p> <p>Upon reasonable notice, presentation of credentials, and at all times in compliance with the Permittee’s site safety standards <u>and the terms and conditions of all leases and easements held by Permittee (including crop damage provisions)</u>, the Permittee shall allow representatives of the Commission to perform the following:</p>	<p>Nobles 2 indicates it is amenable to providing Commission access to ensure Site Permit compliance. However, it asserts that any person that accesses the land on which the Project is sited must abide by Nobles 2’s safety standards as well as the terms and conditions of leases and easements with the underlying landowners. Nobles 2 believes that all must be respectful of the property rights</p>

Section No.	Proposed Revision	Explanation for Proposed Revision
	<p>The DOC-EERA disagrees with Nobles 2's proposed revision of Section 12.6 and requests that the condition stand as originally stated in the Draft Site Permit.</p>	<p>of the underlying landowners pursuant to the leases and easements and any Commission access to the property should not cause damage to the property or should provide for the provision of damage payments under the leases or easements if the surveys, investigations, or sampling cause damage to the property or the crops grown thereon in accordance with the crop damage provisions contained in the lease or easement.</p> <p>The DOC-EERA asserts that Nobles 2's proposed revision to this section would allow it to countermand the Commission based on its lease language, thereby usurping the Commission's authority and rendering the permit condition moot. In order to preserve the Commission's historic right of entry, especially to enforce its permit, the DOC-EERA recommends the language of Permit Condition 12.6 in the Draft Site Permit remain unchanged.</p>
14.0	<p>Nobles 2 proposes revising Section 14.0 to remove the final three notification requirements:</p> <p>The Permittee shall notify the Commission of:</p> <p>(a) The sale of a parent entity or a majority interest in the Permittee;</p> <p>(b) The sale of a majority interest of the Permittee's owners or majority interest of the owners; or</p> <p>(c) A sale which changes the entity with ultimate control over the Permittee.</p>	<p>Nobles 2 asserts that the Transfer of Permit provision provided as Section 14.0 of the Draft Site Permit may lead to confusion due to the duplication of requirements using slightly different notice requirements. Nobles 2 contends that the removed notification requirements are redundant and require notice of the same information required to be provided by the second set of</p>

Section No.	Proposed Revision	Explanation for Proposed Revision
	<p>The DOC-EERA proposes a revision of Section 14.0, as follows:</p> <p>Within 20 days after the date of the notice provided in Section 10.5, the Permittee shall file a notice describing its ownership structure, identifying, as applicable:</p> <ul style="list-style-type: none"> (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). <p>The Permittee shall immediately notify the Commission of:</p> <ul style="list-style-type: none"> (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; or (d) <u>a sale which changes the Permittee's ultimate parent entity.</u> <p>*When there are only co-equal 50/50</p>	<p>notification requirements provided in Section 14.0.</p> <p>The DOC-EERA agrees that some of the terms of Section 14.0 of the Draft Site Permit are duplicative, but not all. The DOC-EERA proposes alternative language for Section 14.0 to remove duplicative terms but leave other terms in place.</p>

Section No.	Proposed Revision	Explanation for Proposed Revision
	<p>percent interests, any change shall be considered a change in majority interest.</p> <p>The Permittee shall notify the Commission of:</p> <p style="padding-left: 40px;">(a) the sale of a parent entity or a majority interest in the Permittee;</p> <p style="padding-left: 40px;">(b) the sale of a majority interest of the Permittee's owners or majority interest of the owners;</p> <p style="padding-left: 40px;">or</p> <p style="padding-left: 40px;">(c) a sale which changes the entity with ultimate control over the Permittee.</p>	

Based on these Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS OF LAW

1. The Commission and the Administrative Law Judge have jurisdiction over the site permit applied for by Nobles 2 for the up to 260 MW proposed Project pursuant to Minn. Stat. § 216F.04.
2. Nobles 2 has complied with the procedural requirements of Minn. Stat. ch. 216F and Minn. R. ch. 7854.
3. The Commission has complied with all procedural requirements required by Minn. Stat. ch. 216F and Minn. R. ch. 7854.
4. Public hearings were conducted in a community near the proposed Project. Proper notice of the public hearings was provided, and members of the public had the opportunity to speak at the hearing and to submit written comments.
5. The Commission has the authority under Minn. Stat. § 216F.04 to place conditions in a LWECs site permit.
6. The Draft Site Permit contains a number of important mitigation measures and other reasonable conditions.
7. It is reasonable to amend the Draft Site Permit in Sections 2.0, 2.2, 4.5, 5.2.9, and 10.3, as proposed by Nobles 2. It is reasonable to adopt the DOC-EERA's proposed revisions or additions as to Sections 6.1, 6.2, 10.4.1, and 14.0 of the Draft

Site Permit. It is reasonable to adopt Section 12.6 as originally stated in the Draft Site Permit, as recommended by the DOC-EERA.

8. The Project, with the permit conditions revised as set forth above in paragraph 7, satisfies the site permit criteria for an LWECs stated in Minn. Stat. § 216F.03 and meets all other applicable legal requirements.

9. The Project, with the permit conditions discussed above, is compatible with environmental preservation, sustainable development, and the efficient use of resources.

10. The Project, with the permit conditions discussed above, does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act and the Minnesota Environmental Policy Act.

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

RECOMMENDATION

Based upon these Findings of Fact and Conclusions of Law, the Administrative Law Judge recommends that the Commission issue a site permit to Nobles 2 to construct and operate the up to 260 MW Project in Nobles County, Minnesota, and that the permit include the conditions amended as set forth in paragraph 7 of the above Conclusions of Law.

Dated: August 24, 2018


JESSICA A. PALMER-DENIG
Administrative Law Judge

NOTICE

Notice is hereby given that exceptions to this Report, if any, by any party adversely affected must be filed under the time frames established in the Commission's rules of practice and procedure, Minn. R. 7829.2700, .3100 (2017), unless otherwise directed by the Commission. Exceptions should be specific and stated and numbered separately. Oral argument before a majority of the Commission will be permitted pursuant to Minn. R. 7829.2700, subp. 3. The Commission will make the final determination of the matter after the expiration of the period for filing exceptions, or after oral argument, if an oral argument is held.

The Commission may, at its own discretion, accept, modify, or reject the Administrative Law Judge's recommendations. The recommendations of the Administrative Law Judge have no legal effect unless expressly adopted by the Commission as its final order.

August 24, 2018

See Attached Service List

**Re: In the Matter of the Application of Nobles 2 Power Partners, LLC for a Site Permit for the up to 260 MW Nobles 2 Wind Project and Associated Facilities in Nobles County, Minnesota; and In the Matter of the Application of Nobles 2 Power Partners, LLC for a Site Permit for the up to 260 MW Nobles 2 Wind Project and Associated Facilities in Nobles County, Minnesota
OAH 71-2500-35110
MPUC IP-6964/WS-17-597
MPUC IP6964/CN-16-289**

To All Persons on the Attached Service List:

Enclosed and served upon you is the Administrative Law Judge's **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATION** in the above-entitled matter.

If you have any questions, please contact my legal assistant Lisa Armstrong at (651) 361-7888 or lisa.armstrong@state.mn.us, or facsimile at (651) 539-0310.

Sincerely,



JESSICA A. PALMER-DENIG
Administrative Law Judge

JPD:la

Enclosure

cc: Docket Coordinator

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
PO BOX 64620
600 NORTH ROBERT STREET
ST. PAUL, MINNESOTA 55164

CERTIFICATE OF SERVICE

<p>In the Matter of the Application of Nobles 2 Power Partners, LLC for a Certificate of Need for the up to 260 MW Nobles 2 Wind Project and Associated Facilities in Nobles County, Minnesota</p> <p>In the Matter of the Application of Nobles 2 Power Partners, LLC for a Site Permit for the up to 260 MW Nobles 2 Wind Project and Associated Facilities in Nobles County, Minnesota</p>	<p>OAH Docket No.: 71-2500-35110 MPUC IP-6964/WS-17-597 MPUC IP6964/CN-16-289</p>
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Lisa Armstrong certifies that on August 24, 2018, she served the true and correct

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATION by
eService, and U.S. Mail, (in the manner indicated below) to the following individuals:

First Name	Last Name	Email	Company Name	Delivery Method
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson Byron	Electronic Service
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	Electronic Service
Ian	Dobson	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	Electronic Service
Jeremy	Duehr	jduehr@fredlaw.com	Fredrikson & Byron, P.A.	Electronic Service
Kate	Fairman	kate.frantz@state.mn.us	Department of Natural Resources	Electronic Service
Annie	Felix Gerth	annie.felix-gerth@state.mn.us		Electronic Service
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	Electronic

Kari	Howe	kari.howe@state.mn.us	DEED	Service
Stacey	Karels	skarels@local563.org	Mankato Area Bldg & Construction Trades Council	Electronic Service
Ray	Kirsch	Raymond.Kirsch@state.mn.us	Department of Commerce	Electronic Service
Karen	Kromar	karen.kromar@state.mn.us	MN Pollution Control Agency	Electronic Service
Susan	Medhaug	Susan.medhaug@state.mn.us	Department of Commerce	Electronic Service
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Cynthia	Warzecha	cynthia.warzecha@state.mn.us	Minnesota Department of Natural Resources	Electronic Service
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	Electronic Service