

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

In the Matter of the Application of Blazing
Star Wind Farm 2, LLC for the 200 MW
Blazing Star 2 Wind Project in Lincoln
County, Minnesota

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

This matter was assigned to Administrative Law Judge Eric L. Lipman to conduct a summary proceeding on the Site Permit Application. The Minnesota Public Utilities Commission (Commission) requested that the Administrative Law Judge conduct a public hearing; prepare Findings of Fact, Conclusions of Law and Recommendations on the merits of the Site Permit Application; and provide any recommendations on the provisions for the proposed site permit.

A public hearing on the proposed Site Permit Application was held on June 28, 2018, in Hendricks, Minnesota. Thereafter, the public hearing record remained open until July 9, 2018, for the receipt of additional written public comments.

Post-hearing submissions were filed by the Applicant on July 19, 2018 and the Department of Commerce on July 26, 2018. The hearing record closed on July 26, 2018, following the receipt of the latter post-hearing submission.

Haley L. Waller Pitts, Fredrikson & Byron, P.A., and Patrick Smith, Senior Director of Environmental Planning, Geronimo Energy, LLC, appeared on behalf of Blazing Star Wind Farm 2, LLC (Blazing Star 2 or Applicant).

Louise I. Miltich, Principal Planner, appeared on behalf of the Minnesota Department of Commerce, Energy Environmental Review and Analysis unit (EERA).

Charles E. Bruce, Public Advisor, and Tricia L. DeBleeckere, Energy Facility Planner, appeared on behalf of the Public Utilities Commission staff.

STATEMENT OF THE ISSUE

Has Blazing Star satisfied the criteria in Minn. Stat. ch. 216F (2018) and Minn. R. ch. 7854 (2017) for issuance of a site permit for a 200 megawatt (MW) wind energy conversion system in Lincoln County, Minnesota?

SUMMARY OF CONCLUSION AND RECOMMENDATION

The Administrative Law Judge concludes that Blazing Star has satisfied the requirements Minn. Stat. ch. 216F and Minn. R. ch. 7854, and is entitled to a site permit for the Blazing Star 2 Wind Project, as described below.

Based upon the hearing record, the Administrative Law Judge makes the following:

FINDINGS OF FACT

I. The Applicant

1. Blazing Star Wind Farm 2, LLC, is a wholly-owned subsidiary of Geronimo Energy, LLC (Geronimo). Geronimo is a renewable energy developer headquartered in Minneapolis, Minnesota. It also operates from a series of satellite offices in southwest Minnesota, Illinois, Michigan, North Dakota and South Dakota.¹

2. Geronimo has developed several operating wind farms and solar projects throughout the United States.²

3. Geronimo is the developer of the Blazing Star Wind Farm, which is located to the north and west of the Blazing Star 2 Wind Project, on adjacent parcels. The Blazing Star I Wind Farm project received a certificate of need and site permit from the Commission in August of 2017.³

II. Brief Description of the Project

4. Blazing Star 2 proposes to construct a large wind energy conversion system (LWECS) and associated facilities in Lincoln County, Minnesota. The proposed Project has a Project Area of approximately 57,800 acres in Lincoln County, Minnesota (Project Area).⁴

5. The proposed Project consists of between 57 and 100 wind turbines yielding a total nameplate capacity of up to 200 MW.⁵

6. The turbines that Blazing Star 2 is considering for installation can produce between 2.0 MW and 3.5 MW of electricity. Depending upon the model that is installed, turbine hub heights would range from 80 to 95 meters (from the ground to the top of turbine nacelle) and the rotor diameter (RD) would range from 110 to 132 meters.⁶

¹ Ex. 1 at 1 (Application).

² *Id.*

³ *Id.* at 2; Order Granting Certificate of Need, MPUC Docket No. CN-16-215 (August 3, 2017) (eDocket No. 20178-134488-01).

⁴ Ex. 1 at 7 (Application).

⁵ *Id.*

⁶ *Id.* at 13, 14 n.2.

7. Blazing Star 2 has not yet finalized the specific turbine choice for the Project. It will select a particular model based upon design and costs factors, after the Project Area and permit conditions have been established by the Commission. In its submissions, Blazing Star 2 evaluated impacts that are typical of the turbines within its stated nameplate range.⁷

8. Wind turbines generally consist of a nacelle, hub, blades, tower, and foundation. The nacelle houses the generator, gear boxes, upper controls, generator cabling, hoist, generator cooling system, and other miscellaneous equipment. The hub supports the blades and connecting rotor, yaw motors, mechanical braking system, and a power supply for emergency braking. The hub also contains an emergency power supply to allow the mechanical brakes to work if electric power from the grid is lost.⁸

9. Each turbine has three blades composed of carbon fibers, fiberglass, and internal supports that combine to provide a lightweight but strong component. The tip of each blade is equipped with a lightning receptor.⁹

10. The tower supports the nacelle, hub and blades. The tower houses electrical, control, and communication cables and a control system located at the base of the tower. Towers may include lifts for use by Project personnel. Tubular towers are painted a non-glare white, off-white or gray.¹⁰

11. Electrical equipment at the base of each tower conditions the generated electricity to match electric grid requirements. The expected tower foundation will be a spread foundation design.¹¹

12. The above-ground portion of the foundation will be approximately twenty feet in diameter.¹²

13. All proposed turbine models have Supervisory Control and Data Acquisition (SCADA) communication technology to control and monitor the Project. The SCADA communications system permits automatic, independent operation and remote supervision, allowing the simultaneous control of the wind turbines.¹³

14. In addition to the turbines, the Project would require the following associated facilities:

- (a) Gravel access roads and improvements to existing roads;
- (b) Underground and above ground electrical collection and communication lines;

⁷ *Id.* at 7, 13.

⁸ *Id.* at 12.

⁹ *Id.*

¹⁰ *Id.* at 13.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.* at 14.

- (c) Operations and maintenance (O&M) facilities;
- (d) Project substation facility and interconnection facilities;
- (e) Up to four permanent meteorological towers (the height of which would be dependent on the final turbine hub height);
- (f) Sonic Detection and Ranging (SoDAR) or Light Detection and Ranging (LiDAR) units;
- (g) Above-ground electrical feeder lines;
- (h) A temporary batch plant and staging-laydown areas for construction of the Project.¹⁴

15. Blazing Star 2 proposes a:

- (a) wind access buffer of five rotor diameter lengths in the prevailing wind direction and three rotor diameter lengths in the non-prevailing wind direction;
- (b) noise setback that meets the standards in Minnesota Rules Chapter 7030; and,
- (c) minimum setback of 1,000 feet from residences and 250 feet from public roads and trails.¹⁵

16. Blazing Star 2 estimates that the total Project-installed capital costs would be approximately \$330 million. This estimate includes the costs of wind turbines, associated electrical and communication systems, and access roads.¹⁶

17. Blazing Star 2 estimates that the ongoing operations and maintenance costs and administrative costs will be between \$6.5 and \$7.5 million per year. This estimate includes royalties to landowners for wind lease and easement rights.¹⁷

18. The final overall cost of developing the Project will be heavily influenced by site selection and the timing of construction.¹⁸

III. Site Permit Application and Related Procedural History

19. On November 16, 2017, Blazing Star 2 filed a Site Permit Application with the Commission for the Project (Application).¹⁹

¹⁴ *Id.* at 7-8.

¹⁵ *Id.* at 9.

¹⁶ *Id.* at 112.

¹⁷ *Id.* at 112.

¹⁸ *Id.* at 112.

¹⁹ Ex. 1 (Application).

20. On November 28, 2017, the Commission issued a Notice of Comment Period. It requested comment on a series of topics, namely whether: (a) the Application was complete within the meaning of the Commission's rules; (b) there are contested issues of fact as to representations made in the Application; (c) the Application should be referred to the Office of Administrative Hearings (OAH) for a contested case proceeding; and (d) there are other issues the Commission should consider. The initial comment period closed on December 11, 2017, and the reply comment period closed on December 18, 2017.²⁰

21. On December 11, 2017, EERA filed comments. It recommended that the Commission accept the Application as complete; take no action at this time on certain trade-secret data in the Application; delay its decision regarding contested-case proceedings; and vary the 45-day time period in Minn. R. 7854.0800 for a preliminary determination on whether to issue a site permit.²¹

22. On December 11, 2017, the Minnesota Pollution Control Agency (MPCA) filed a letter stating that it reviewed the Application but had no comments at that time.²²

23. On December 29, 2017, the Commission issued a Notice of Commission Meeting. The meeting was scheduled for January 11, 2018. During the meeting, the Commission would consider whether to accept the Application as substantially complete; the process for evaluating the Application; and whether to vary the time limits for review of the application and issuance of a draft permit.²³

24. On January 11, 2018, the Commission met to consider the items identified in the Notice of Commission Meeting. It accepted the Application as substantially complete; varied the timelines for action on the Application and Draft Site Permit; and addressed other administrative matters.²⁴

25. On January 29, 2018, the Commission issued its Order Accepting Application, Designating Administrative Responsibilities, and Varying Rules.²⁵

26. On February 5, 2018, the Commission issued a Notice of Public Information Meeting and Comment Period on the Application scheduling a meeting on February 20, 2018 in Hendricks, Minnesota. It also announced that initial written comments would be accepted through March 7, 2018, and reply comments would be

²⁰ Notice of Comment Period (Nov. 28, 2017) (eDocket No. 201711-137727-01).

²¹ EERA Comments and Recommendations on Application Acceptance (Dec. 11, 2017) (eDocket No. 201712-138087-01).

²² MPCA Comments (Dec. 11, 2017) (eDocket No. 201712-138078-01).

²³ Notice of Commission Meeting – January 11, 2018 Agenda (Dec. 29, 2017) (eDocket No. 201712-138484-02).

²⁴ Minutes – January 11, 2018 Agenda (May 30, 2018) (eDocket No. 20185-143436-03); see also Minn. R. 7854.0600, subp. 1; Minn. R. 7854.0800, subp. 1.

²⁵ Order Accepting Application, Designating Administrative Responsibilities, and Varying Rules (Jan. 29, 2018) (eDocket No. 20181-139457-01).

accepted through March 14, 2018. The Notice requested comments on issues and facts that should be considered in the development of the Draft Site Permit.²⁶

27. During this comment period, comments were received from three members of the public, the Minnesota Department of Transportation (MnDOT) and the Minnesota Department of Natural Resources (MDNR).²⁷

28. On February 20, 2018, a public meeting was held in Hendricks, Minnesota.²⁸

29. On February 28, 2018, Blazing Star 2 submitted filings reflecting its compliance with the notice requirements of Minn. R. 7854.0600. The Applicant detailed its direct mail notice, publication of notices in local newspapers and placement of a copy of the Application in the public library closest to the proposed Project site.²⁹

30. On March 16, 2018, the Commission filed documentation that the Notice of Public Information Meeting and Comment Period had been published in the Minnesota Environmental Quality Board's *Monitor*.³⁰

31. On April 9, 2018, EERA filed a letter requesting additional information from Blazing Star 2.³¹

32. On April 11, 2018, EERA filed comments and recommendations on a Draft Site Permit and a Preliminary Draft Site Permit.³²

33. On April 20, 2018, the Commission issued a Notice of Commission Meeting scheduling a meeting for May 3, 2018. At this meeting, the Commission would consider whether to issue a preliminary Draft Site Permit for the Project.³³

34. On May 11, 2018, the Commission issued a Draft Site Permit.³⁴

35. The draft conditions apply to site preparation, construction, cleanup, restoration, operation, maintenance, abandonment, decommissioning, and other aspects of the Project.³⁵

²⁶ Notice of Public Information Meeting and Comment Period (Feb. 5, 2018) (eDocket No. 20182-139774-01).

²⁷ MnDOT Comments (March 7, 2018) (eDocket No. 20183-140844-01); MDNR Comments (March 7, 2018) (eDocket Nos. 20183-140835-02, 20183-140835-01); Public Comments (March 8, 2018) (eDocket No. 20183-140871-01).

²⁸ Public Information and Scoping Meeting Transcript, February 20, 2018 (March 9, 2018) (eDocket No. 20183-140913-01).

²⁹ Ex. 3 (Affidavits of Mailing and Publication).

³⁰ Confirmation of Publication in *EQB Monitor* (March 16, 2018) (eDocket No. 20183-141138-01).

³¹ EERA Letter (April 9, 2018) (eDocket No. 20184-141778-01).

³² EERA Comments and Recommendations (April 11, 2018) (eDocket No. 20184-141855-01).

³³ Notice of Commission Meeting – May 3, 2018 Agenda (April 20, 2018) (eDocket No. 20184-142153-04).

³⁴ See Order (May 11, 2016) (eDocket No. 20185-142959-01) (“Draft Site Permit”).

³⁵ *Id.*

36. Many of the conditions contained in the Draft Site Permit were established as part of the proceedings of other wind turbine projects reviewed by the Commission. Comments received by the Commission in this proceeding have been considered in development of the Draft Site Permit.³⁶

37. Also on May 11, 2018, the Commission referred this matter to the OAH for a summary proceeding. It requested that an administrative law judge prepare a report on the Permit application and comments from stakeholders both during and after the public hearing.³⁷

38. On June 6, 2018, the Administrative Law Judge issued the First Prehearing Order. The Order set a public hearing for June 28, 2018, in Hendricks, Minnesota, as well as a series of other procedural deadlines for this proceeding.³⁸

39. On June 18, 2018, the Commission issued a Notice of Public Hearing and Draft Site Permit Availability. The Notice provided:

- (a) the location and date of the public hearing;
- (b) a description of the proposed Project;
- (c) a July 9, 2018 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.

Topics for public comment included: (1) Should the Commission issue a Site Permit for the Project; (2) What are the costs and benefits of the Project; and (3) Are there any other project-related issues or concerns.³⁹

40. On June 21, 2018, Blazing Star 2 filed the direct testimony of Patrick Smith.⁴⁰

41. The public hearing was held on June 28, 2018 in Hendricks, Minnesota.⁴¹

42. On July 9, 2018, MDNR filed comments.⁴²

³⁶ See *id.*

³⁷ *Id.*

³⁸ First Prehearing Order (June 6, 2018) (eDocket No. 20186-143596-01).

³⁹ Notice of Public Hearing and Draft Site Permit Availability (June 18, 2018) (eDocket No. 20186-143937-02).

⁴⁰ Ex. 4 (Smith Direct) (eDocket No. 20186-144048-02).

⁴¹ Public Hearing Transcript (July 12, 2018) (eDocket No. 20187-144732-01).

⁴² MDNR Comments (July 9, 2018) (eDocket No. 20187-144636-01).

43. On July 19, 2018, the Applicant filed comments and its Proposed Findings of Fact, Conclusions of Law and Recommendation.⁴³

44. On July 20, 2018 and July 26, 2018, EERA filed its comments.⁴⁴

IV. Certificate of Need Exemption

45. A Certificate of Need (CN) is required for all “large energy facilities,” as defined in Minn. Stat. § 216B.2421, subd. 2(1), unless the facility falls within a specific statutory exemption. Because the Project is a generating plant larger than 50 MW, it meets the definition of a “large energy facility.”⁴⁵

46. The Project is part of Xcel Energy’s 1,550 MW wind generation portfolio that was approved by the Commission in September 2017.⁴⁶

47. The Commission has determined that the Project is exempt from the requirement to obtain a Certificate of Need under Minn. Stat. § 216B.2422, subd. 5 (2018).⁴⁷

V. Site Location and Characteristics

48. The Project Area is located in a rural portion of southwestern Minnesota. The Project spans parts of Diamond Lake, Drammen, Ash Lake, Shaokatan, Royal, Hendricks, and Marble Townships.⁴⁸

49. The townships within the Project Area have an average population density of 4.78 people per square mile.⁴⁹

50. Proposed Turbine 60 is located roughly 1,300 - 1,350 feet from Shaokatan Wildlife Management Area. Proposed Turbines 72 and 74 are located roughly 1,400 - 1450 feet from Iron Horse Wildlife Management Area.⁵⁰

51. More generally, the Project layout follows the wind energy conversion facility siting criteria outlined in the Commission’s Order Establishing General Wind Permit Standards, Docket No. M-07-1102 (January 15, 2008), applicable local government ordinances and Geronimo’s best practices for siting.⁵¹

⁴³ Applicant’s Post-Hearing Comments (July 19, 2018) (eDocket No. 20187-145048-01).

⁴⁴ EERA Comments (July 20 and 26, 2018) (eDocket Nos. 20187-145221-01, 20187-145254-01).

⁴⁵ Ex. 1 at 2 (Application).

⁴⁶ Order Approving Petition, Granting Variance, and Requiring Compliance Filing, *In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of Wind Generation from the Company’s 2016-2030 Integrated Resource Plan* (Sept. 1, 2017), at p. 2.

⁴⁷ See Order Approving Petition, Granting Variance, and Requiring Compliance Filing, *In the Matter of the Xcel Energy’s 2016-2030 Integrated Resource Plan*, MPUC Docket No. E002/M-16-777 at 11 (Sept. 1, 2017) (eDocket No. 20179-135205-01).

⁴⁸ Ex. 1 at 1 (Application).

⁴⁹ *Id.* at 19.

⁵⁰ MDNR Comments of March 7, 2108, *supra*, at 1.

⁵¹ Ex. 1 at 9 (Application).

52. Because Blazing Star 2 has not yet proposed a specific turbine choice for the Project, the EERA recommends that Section 3.1 of the Draft Site Permit be revised so as to maintain Commission and stakeholder expectations as to the overall impacts of the Project, notwithstanding the choice of turbine. EERA proposes the following revisions:

3.1 Turbine Model and Layout

The preliminary wind turbine and associated facility layouts are shown on the official site maps attached to this permit. The preliminary layout represents the approximate location of wind turbines and associated facilities within the project boundary and identifies a layout that seeks to minimize the overall potential human and environmental impacts of the project, which were evaluated in the permitting process.

The final layout depicting the location of each wind turbine and associated facility shall be located within the project boundary. The project boundary serves to provide the Permittee with the flexibility to make minor adjustments to the preliminary layout to accommodate requests by landowners, local government units, federal and state agency requirements, and unforeseen conditions encountered during the detailed engineering and design process. Any modification to the wind turbine model or the location of a wind turbine and associated facility depicted in the preliminary layout shall be done in such a manner to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 10.3.⁵²

The revisions are useful and appropriate.

VI. Wind Resource Considerations

53. Based upon the National Renewable Energy Laboratory's Wind Integration National Dataset, Blazing Star 2 predicts that wind speeds near the Project Area, at 80 meters above ground-level, will be 8.2 to 8.5 meters per second (m/s).⁵³

54. Blazing Star 2 initiated its wind resource assessment campaign in 2015 and has three temporary meteorological towers monitoring weather data in the Project Area. The average annual wind speed is estimated to be 7.8 m/s. Generally, the months of September through April are expected to result in the highest wind speeds, whereas the months of June and July are expected to have the lowest wind speeds. Additionally, on average, the wind speeds are likely to be higher in the evening and nighttime hours, and lower in the morning and at midday.⁵⁴

⁵² EERA Comments of July 26, 2018, *supra*, at 3.

⁵³ Ex. 1 at 100 (Application).

⁵⁴ *Id.* at 100-101.

55. The prevailing wind directions in the Project Area are generally from the north and south.⁵⁵

56. Blazing Star 2 estimates that the Project will have a net capacity factor of between 45 to 50 percent and result in an average annual output of between 788,400 and 876,000 MW hours. Annual energy output will depend upon the final design, site specific features and the equipment selected for the Project.⁵⁶

VII. Wind Rights, Easements and Lease Agreements

57. Blazing Star 2 has obtained sufficient land lease, wind easements and setback easement agreements to build the Project. The range of land rights secured from these landowners varies. It can include: the right to construct wind turbines and Project facilities; rights to wind and buffer easements; authorization to construct transmission feeder lines in public road right-of-way; and rights to additional land, if any, that is needed to mitigate environmental impacts from the Project.⁵⁷

58. Blazing Star 2 currently leases approximately 38,313 acres of the 57,800 acres within the Project Area (amounting to 66 percent of the Project Area). All Project facilities will be sited on leased land and the current leaseholds are sufficient to accommodate the proposed facilities, required buffers and turbine placement. The leaseholds also afford some flexibility in siting so as to avoid natural resources, homes and other sensitive features.⁵⁸

59. In instances where setback requirements differ for the same feature, Blazing Star 2 pledges to use the more stringent setback distance.⁵⁹

VIII. Project Schedule

60. The Project's commercial operation date requires, and is dependent upon, receipt of permits, completion of the interconnection process and other development activities.⁶⁰

IX. Summary of the Public Comments

61. Approximately eight people spoke at the public information meeting held on February 20, 2018. The dialogue between commentators and staff touched upon a wide range of topics, including: the environmental benefits of wind energy; economic benefits of the Project; payments to landowners and tax payments to local

⁵⁵ *Id.* at 104.

⁵⁶ *Id.* at 114.

⁵⁷ *Id.* at 9.

⁵⁸ *Id.* at 18.

⁵⁹ *Id.* at 9.

⁶⁰ *Id.* at 114.

governments; job opportunities and the use of local labor; the impacts of electric and magnetic fields; and aesthetic impacts from the lights used on the turbines.⁶¹

62. Written public comments included topics such as aesthetics and lighting, economic benefits, and practices for decommissioning turbines.⁶²

63. MnDOT provided comments on corridor sharing with utility projects in highway rights-of-way, roadway restrictions and potential scenic byway concerns.⁶³

64. MnDOT recommended that the Draft Site Permit include language requiring Blazing Star 2 to obtain all necessary permits and approvals.⁶⁴

65. MDNR commented on the potential impacts to rare plants, animals, native plant communities, and rates of avian and bat fatalities. MDNR further recommended a series of changes to the Project's Avian and Bat Protection Plan (ABPP).⁶⁵

66. MDNR recommended that turbine locations be reviewed to ensure that they comply with the wind access buffer. It further recommended that the Commission require an additional 200 feet of buffer zone, beyond the existing setback, from any MDNR Administered Lands. MDNR expressed the concern that if the rotor swept zone of the project was closer to DNR lands than the wind access buffer and this additional setback, still more avian and bat fatalities would follow.⁶⁶

67. MDNR recommended that the Draft Site Permit include specific language requiring "feathering" of the wind turbine blades – so as to position them parallel to the wind – and adjustment of the operational "cut-in speed" – the speed at which the turbines begin to produce energy – so as to reduce the number of bat fatalities. It recommends requiring these adjustments from one-half hour prior to sunset to one-half hour after sunrise, between April 1 and October 31 each year.⁶⁷

68. Because of the proximity of Proposed Turbines 60, 72 and 74 to the Shaokatan Wildlife Management Area and the Iron Horse Wildlife Management Area, respectively, MDNR also urged that those turbines be sited in different locations.⁶⁸

69. One member of the public, Joe Navejas, spoke at the public hearing on June 28, 2018. He expressed his support for the Project and detailed the benefits that follow from hiring local labor for construction of such projects.⁶⁹

⁶¹ Public Information and Scoping Meeting Transcript, February 20, 2018 (March 9, 2018) (eDocket No. 20183-140913-01).

⁶² Public Comments (March 8, 2018) (eDocket No. 20183-140871-01).

⁶³ See MnDOT Comments (March 7, 2018) (eDocket No. 20183-140844-01).

⁶⁴ *Id.*

⁶⁵ MDNR Comments of March 7, 2018, *supra*, at 1-3.

⁶⁶ *Id.* at 1.

⁶⁷ *Id.* at 2.

⁶⁸ *Id.* at 1

⁶⁹ Public Hearing Transcript, *supra*, at 20-21 (June 28, 2018) (Navejas).

70. The only written comment submitted before the end of the public comment period was from the MDNR. It stated that because it “did not receive the requested shapefiles” it could not verify Blazing Star 2’s claim that “the project would avoid native prairie. . . .” MDNR’s consultations with the Applicant on that matter continues and it “looks forward to reviewing” those materials.⁷⁰

X. Site Permit Criteria

71. Wind energy projects are governed by Minn. Stat. ch. 216F and Minn. R. ch. 7854. Minn. Stat. § 216F.01, subd. 2, defines a “large wind energy conversion system” as a combination of wind energy conversion systems with a combined nameplate capacity of five MW or more.⁷¹

72. Minn. Stat. § 216F.03 requires that a LWECS be sited in an orderly manner so as to be compatible with environmental preservation, sustainable development and the efficient use of resources.⁷²

73. 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 (b) (2018). This statute states, 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;

⁷⁰ MDNR Comments of July 9, 2018, *supra*, at 1.

⁷¹ Minn. Stat. § 216F.01, subd. 2.

⁷² Minn. Stat. § 216F.03.

(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 . . . ;

(8) ***

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

(10) ***

(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.⁷³

74. The Commission must also consider whether the applicant has complied with all applicable procedural requirements.⁷⁴

75. The Commission's rules require that, as part of the application process, the applicant provide information regarding potential impacts of the proposed project, potential mitigation measures, and any adverse effects that cannot be avoided.⁷⁵

76. No separate environmental review document is required for a LWECs project.⁷⁶

XI. Application of the Siting Criteria to the Proposed Project

A. Human Settlement

77. The Project Area is located in rural southwestern Minnesota. Population densities within the Project Area range from 2.84 people per square mile in Hendricks Township to 5.75 people per square mile in Diamond Lake Township. The townships

⁷³ Minn. Stat. § 216E.03, subd. 7 (b). Factors 8 and 10, omitted above, relate to routing high voltage transmission lines.

⁷⁴ See Minn. R. 7854.1000, subp. 3 (2017).

⁷⁵ Minn. R. 7854.0500, subp. 7.

⁷⁶ *Id.* ("The analysis of the environmental impacts required by this subpart satisfies the environmental review requirements of chapter 4410, parts 7849.1000 to 7849.2100, and Minnesota Statutes, chapter 116D. No environmental assessment worksheet or environmental impact statement shall be required on a proposed LWECs project.").

within the Project Area have an average population density of 4.78 people per square mile.⁷⁷

78. There are 261 identified commercial-scale wind turbines in operation within ten miles of the Project Area. 150 of those are located in Minnesota (two of which are within the Project Area) and the remaining 111 wind turbines are located in South Dakota. Within 20 miles of the Project Area, there are 529 identified wind turbines, with 350 of these located in Minnesota.⁷⁸

79. The construction of the Project will not displace any residents or change the demographics of the Project Area.⁷⁹

B. Zoning and Land Use

80. Lincoln County has adopted a comprehensive plan titled the 2009 Comprehensive Development Ordinance. Portions of the Project Area fall within the Floodplain Management District, Shoreland Management District, Urban Expansion District, Businesses and Industry District, and Rural Preservation Management District as identified in the plan.⁸⁰

81. The majority of the Project Area falls within the Rural Preservation Management District. None of the proposed Project facilities are located within Federal Emergency Management Agency 100-year floodplain zones. Based upon available Lincoln County Shoreland Management District digital data, none of the proposed Project facilities would be located within the Shoreland Management District. While the proposed Project Area does overlap with the Urban Expansion Management Districts near Hendricks and Ivanhoe, Blazing Star 2 does not propose to place Project facilities within those expansion districts.⁸¹

82. It is unlikely that the proposed Project facilities will impact the zoning or current use of the parcels within these districts.⁸²

83. Layouts for all four turbine options include Project facilities within the Business and Industry Districts of the cities of Hendricks and Ivanhoe. Wind energy projects are generally consistent with the uses in these zoning districts.⁸³

84. Based upon publicly available information, the Project will not impact any U.S. Fish and Wildlife Service (USFWS) grassland, wetland, or National Wildlife Refuge (NWR) easements, Reinvest in Minnesota (RIM) easements, or Pheasants Forever easements.⁸⁴

⁷⁷ Ex. 1 at 19.

⁷⁸ *Id.* at 105.

⁷⁹ *Id.* at 20.

⁸⁰ *Id.* at 20-21.

⁸¹ *Id.* at 21.

⁸² *Id.* at 21.

⁸³ *Id.* at 22.

⁸⁴ *Id.* at 23.

85. Blazing Star 2 has pledged to avoid conducting Project activities within conservation easements held by a public agency or private organization. If those impacts later become unavoidable, Blazing Star 2 further pledges to negotiate with easement holders so as to obtain their consent for any impacts⁸⁵

86. The Project is consistent with Lincoln County's comprehensive plan. The Project is not likely to alter the land use or zoning classification of any parcel within, or adjacent to, the Project Area boundary.⁸⁶

C. Noise

87. The operation of wind turbines produces some noise. The level of noise varies with the speed of the turbine and the distance of the listener from the turbine.⁸⁷

88. The MPCA has adopted noise standards. The noise standards specify the maximum allowable noise levels that may occur during particular periods of time. L₁₀ signifies the decibel level that may not be exceeded for more than 10 percent of any hour survey. L₅₀ signifies the decibel level that may not be exceeded for more than 50 percent of any hour survey.⁸⁸

89. For example, if the applicable noise standard set L₁₀ at 55, noise levels could not exceed 55 A-weighted decibels (dBA) for more than 6 minutes of any hour.⁸⁹

90. The noise area classification is based upon the land use at the location of the receiver, and generally, determines the applicable noise standards. Households, including farm houses, and other residential units, are categorized as a Noise Area Classification 1. This classification enjoys the greatest protections against noise.⁹⁰

91. The most stringent noise standard is a 50 dBA limit. It applies to noise levels between 10:00 p.m. and 7:00 a.m., within Noise Area Classification 1.⁹¹

92. Blazing Star 2 conducted background sound level monitoring throughout the Project Area to quantify the existing sound levels and to identify existing sources of sound. Daytime sound levels throughout the Project Area generally ranged from 33 to 41 dBA L₅₀, while nighttime sound levels were generally between 30 and 42 dBA L₅₀. The average daytime L₅₀ across the Project Area was 37 dBA, and the average nighttime L₅₀ across the Project Area was 35 dBA.⁹²

⁸⁵ *Id.* at 23 (Blazing Star 2 states that it "will prioritize avoidance of conservation easements over impacts to those areas. Easement holders will need to consent to impacts that may affect their land interests; Blazing Star 2 will work with conservation easement holders to obtain consents for impacts to their easements if impacts are unavoidable.").

⁸⁶ *Id.* at 21.

⁸⁷ *Id.* at 25.

⁸⁸ *Id.*; Minn. R. 7030.0040, subps. 7, 8 (2017); Minn. R. 7030.0040 subp. 2 (2017).

⁸⁹ *Id.*; Minn. R. 7030.0040, subps. 2, 5 (2017); Minn. R. 7030.0040 subp. 2.

⁹⁰ Minn. R. 7030.0050 subp. 2 (2017).

⁹¹ *Id.*; Minn. R. 7030.0040 subp. 2.

⁹² Ex. 1 at 24 (Application).

93. Blazing Star 2 also conducted a preliminary noise assessment of the Project. The analysis accounted for all noise generating elements associated with different proposed wind turbine types and layouts for the Project. The maximum calculated noise level resulted in a 49 dBA L₅₀ at the nearest noise-sensitive receptor. The average Project-related noise levels at residences for all turbine models range from 35 to 37 dBA, on an hourly L₅₀ basis. The maximum calculated noise levels at all residential receptors for all turbine models were below the MPCA nighttime L₅₀ noise limit of 50 dBA.⁹³

94. Draft Site Permit Condition 4.3 requires turbines to be placed in appropriate locations to ensure compliance with the Noise Standards in Minn. R. ch. 7030.⁹⁴

95. Unless other arrangements have been made with specific residents, Blazing Star 2 proposes to site turbines at least 1,000 feet from residences and any additional distance that is needed to comply with the MPCA limit of a 50 dBA nighttime L₅₀ noise level.⁹⁵

96. Section 7.4 of the Draft Site Permit requires the Permittee to conduct post-construction noise monitoring. The study will assess the noise levels at different frequencies and distances from the turbines during different wind directions and speeds.⁹⁶

97. The record demonstrates that Blazing Star 2 project will minimize likely impacts from noise.⁹⁷

D. Shadow Flicker

98. Shadow flicker from wind turbines is a sharp change in light intensity at a given stationary location, or receptor – such as the window of a home. Shadow flicker occurs when the following three conditions are 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 a shadow created by the turbine.⁹⁸

99. Shadow flicker intensity and frequency at a given receptor are determined by a number of interacting factors, including: sun angle and sun path, turbine and receptor locations, cloud cover and degree of visibility, wind direction, wind speed, obstacles, contrast, and local topography.⁹⁹

⁹³ *Id.* at 26.

⁹⁴ Draft Site Permit at § 4.3.

⁹⁵ Ex. 1 at 27 (Application).

⁹⁶ Draft Site Permit at § 7.4.

⁹⁷ Ex. 1 at 24-27; Draft Site Permit §§ 4.2, 4.3, 7.4.

⁹⁸ Ex. 1 at 30 (Application).

⁹⁹ *Id.* at 30-31.

100. Blazing Star 2 modeled shadow flicker frequency calculations for the Project by 455 residences within the Project Area. Blazing Star 2 developed both a “worst case scenario model” and a more realistic model. The more realistic model drew meteorological data from the Project Area so as to adjust particular variables (such as wind direction and turbine operating hours) instead of assuming the worst conditions.¹⁰⁰

101. The results of this study indicate that, under the most aggressive assumptions, receptors at 15 of the participating landowners’ occupied residences would detect more than 30 hours per year of flicker. Under the more likely conditions, none of the non-participating landowner’s residences would be subjected to more than 30 hours of per year of shadow flicker.¹⁰¹

102. Section 7.2 of the Draft Site Permit requires the Permittee to provide the Commission with data on shadow flicker for each residence, inside and outside of the Project boundary, likely to be exposed to turbine shadow flicker. The data will include the modeling results, assumptions underlying the modeling, and the anticipated level of exposure from turbine shadow flicker for each residence. Blazing Star 2 will also be required to provide documentation on its efforts to avoid, minimize, and mitigate shadow flicker exposure.¹⁰²

103. Mitigation measures will be considered and implemented based upon individual circumstances of residences experiencing shadow flicker and as a function of the amount of flicker experienced. Such mitigation measures may include providing indoor or exterior screening.¹⁰³

104. The record demonstrates that Blazing Star 2 project will mitigate likely impacts from shadow flicker to residences.¹⁰⁴

E. Aesthetics

105. The existing landscape in the Project Area is, generally, gently rolling plains and agricultural fields, with the occasional windbreak surrounding a farmstead.¹⁰⁵

106. Construction of the Project would alter the existing landscape by placing up to 100 wind turbines. However, because other wind facilities now exist in this part of Minnesota, the Project should have a lower impact than in areas with no previous wind development. The wind turbines are compatible with uses in the surrounding area.¹⁰⁶

107. Both Blazing Star 2 and the Department proposed revisions to the Draft Site Permit relating to the deployment of an Aircraft Detection Lighting System (ADLS) at the Project. While the deployment of such a system may impact aesthetic values, as

¹⁰⁰ *Id.* at 32-33.

¹⁰¹ Ex. 1, Appendix B at 8 (Shadow Flicker Report) (Application).

¹⁰² Draft Site Permit at § 7.2.

¹⁰³ Ex. 1 at 33-34 (Application).

¹⁰⁴ *Id.* at 32-34, Appendix B.

¹⁰⁵ *Id.* at 27.

¹⁰⁶ *See id.* at 23, 28.

a result of activating wind turbine lights after dark, the Findings relating to ADLS are made below, in the Aviation section – Section XI (M)(2).¹⁰⁷

108. The Project is not anticipated to result in significant aesthetic impacts. The record demonstrates that Blazing Star 2 project will address and minimize likely impacts to the aesthetics of Lincoln County.¹⁰⁸

F. Local Economy

109. The Project will result in both short-term and long-term benefits to Lincoln County. Blazing Star 2 will turn to local contractors and suppliers for key portions of the construction. Wages paid to contractors and workers in Lincoln County will contribute to the total personal income of the region.¹⁰⁹

110. Additional personal income will be generated for residents in the county and state by circulation and recirculation of dollars paid out by the Applicant for business expenditures and for state and local taxes. Expenditures made for equipment, fuel, operating supplies, and other products and services will benefit businesses in the county and the state.¹¹⁰

111. Commenters noted that the Project is expected to result in sought-after and well-paying construction jobs.¹¹¹

112. The Project provides landowners and farmers with opportunities for higher agricultural profitability and a more diverse revenue stream. Landowners with a turbine, or other Project facilities, on their land will receive a royalty or lease payment annually for the life of the Project.¹¹²

113. The Project will also pay a Wind Energy Production Tax to the local units of government of \$0.0012 per kilowatt hour (kWh) of electricity produced. This will result in Wind Energy Production Tax revenue of approximately \$900,000 each year.¹¹³

114. Geronimo operates two other renewable energy projects that it developed in Southwest Minnesota: The Prairie Rose Wind Farm and Odell Wind Farm. Geronimo earlier held own ownership interests in these projects, but today, only serves as the operator.¹¹⁴

¹⁰⁷ See Section XI (M)(2), *infra*.

¹⁰⁸ Ex. 1 at 23-28 (Application).

¹⁰⁹ *Id.* at 63.

¹¹⁰ *Id.*

¹¹¹ See Public Information and Scoping Meeting Transcript, at 32-33 (Karels), 34 (Thomssen) and 35-36 (Lamote) (March 9, 2018) (eDocket No. 20183-140913-01).

¹¹² Ex. 1 at 63 (Application); *accord*, Public Information and Scoping Meeting Transcript, *supra*, at 21-22 (Nichols).

¹¹³ *Id.* at 63.

¹¹⁴ *Id.* at 2, n.3.

115. The experience of like developments in nearby communities is worth noting here because it lends weight to the revenue estimates in this proceeding.¹¹⁵

116. Prairie Rose, a 200 MW wind farm in Rock County, results in approximately \$1.1 million in landowner payments, \$40,000 of deposits to a community fund, and approximately \$850,000 in tax revenue, each year.¹¹⁶

117. The Odell Wind Farm is a 200 MW project in Cottonwood, Jackson, Martin and Watonwan counties. It results in approximately \$1.1 million in landowner payments, \$40,000 of deposits to a community fund, and approximately \$850,000 in tax revenue each year.¹¹⁷

118. The record demonstrates that the Project will result in both short-term and long-term benefits to the local economy.¹¹⁸

G. Public Health Impacts

119. The term electromagnetic field (EMF) refers to electric and magnetic fields that are present around any electrical device.¹¹⁹

120. Electric fields arise from electrical charges. 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.¹²⁰

121. Whether exposure to magnetic fields causes negative health impacts continues to be the subject of research and debate. In this instance, however, the record suggests that nearby homes will be well out of the exposure range of project-related EMF.¹²¹

122. EMF from underground electrical collection lines dissipates very close to the lines because the lines are installed below ground within insulated shielding. While the electrical fields from these lines are negligible, a small magnetic field is detectable when one is standing directly above a collection line. Based upon engineering analysis, this magnetic field completely dissipates within 20 feet of the installed cable.¹²²

¹¹⁵ Minn. R. 1400.7300, subp. 1 (2017) (“The judge may admit all evidence which possesses probative value, including hearsay, if it is the type of evidence on which reasonable, prudent persons are accustomed to rely in the conduct of their serious affairs”).

¹¹⁶ Ex. 1 at 2.

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 2, 22-23, 63-64.

¹¹⁹ *Id.* at 53.

¹²⁰ *Id.*

¹²¹ *Id.* at 53-54.

¹²² *Id.* at 53.

123. EMF associated with the transformers at the base of each turbine completely dissipates within 500 feet of the facility. Accordingly, the 1,000 feet turbine setback from residences is adequate to avoid EMF exposure to homes.¹²³

124. Based upon the most current research on EMFs, and the distance between any turbines or collector lines and houses, no impacts due to EMF are anticipated from the project.¹²⁴

125. Stray voltage is a natural phenomenon that results from low levels of electrical current flowing between two points that are not connected. Stray voltage does not cause electrocution and is not related to ground current, EMF, or earth currents. Stray voltage problems usually relate to the electric distribution and service lines serving the farm, or the wiring on a farm, and effects upon farm animals that are confined.¹²⁵

126. No impacts from EMFs or stray voltage are anticipated from either construction or operation of the Project.¹²⁶

H. Public Safety Impacts

127. Blazing Star 2 and its construction team pledges to coordinate with first responders to develop a safety plan for construction and operations of the Project.¹²⁷

128. Blazing Star 2 states that it will be in contact with local first responders to brief them about the Project and to answer any questions response teams may have regarding Project plans and details. Blazing Star 2 will also coordinate with Gopher State One Call and the pipeline companies before construction begins.¹²⁸

129. Under Draft Site Permit Section 5.2.25, Blazing Star 2 must provide educational materials to landowners who are adjacent to the site and, upon request, to interested persons who inquire about restrictions or dangers relating to the Project. Blazing Star 2 will also provide any necessary warning signs and gates for traffic control. In addition, Blazing Star 2 will submit the location of all underground facilities to Gopher State One Call after construction is completed.¹²⁹

130. The Draft Site Permit contains sufficient conditions to identify and mitigate potential impacts on public safety.¹³⁰

131. No significant impacts to public safety are expected to result from construction or operation of the Project.¹³¹

¹²³ *Id.*

¹²⁴ *Id.* at 53-54.

¹²⁵ *Id.* at 53.

¹²⁶ *Id.* at 53-54.

¹²⁷ *Id.* at 56.

¹²⁸ *Id.*

¹²⁹ Draft Site Permit at § 5.2.25.

¹³⁰ *Id.*

¹³¹ Ex. 1 at 56-58.

I. Public Service and Infrastructure

132. There is an established transportation and utility network that provides necessary services to the light industry, small cities, homesteads, and farms near the Project Area.¹³²

133. In general, the roadway infrastructure in and around the Project Area includes state, county and township roads that follow section lines. Various county and township roads provide access to the Project Area. In agricultural areas, many landowners use private, single-lane farm roads and driveways onto their property.¹³³

134. During the construction phase, temporary impacts are anticipated on some public roads within the Project Area. These roads may be expanded along specific routes so as to facilitate the movement of equipment. Further, construction activities will increase the amount of traffic using local roadways, to and from Project facilities. Yet, these uses are not anticipated to result in significant traffic impacts.¹³⁴

135. Likewise, O&M activities are not anticipated to noticeably increase traffic in the Project Area.¹³⁵

136. Blazing Star 2 pledges to develop a transportation plan and road restoration agreements with Lincoln County and township road authorities. Impacted roadways will be restored in accordance with the road restoration agreements. Blazing Star 2 will ensure that the general contractor communicates with the respective road authority throughout the construction process, particularly as it pertains to the movement of equipment on roads and other specific duties identified within the road and transportation agreements.¹³⁶

137. The Draft Site Permit contains provisions to prevent the Project from interfering with television and radio signal reception, microwave signal patterns, and telecommunications. It requires Blazing Star 2 to remediate disruption or interference to these services caused by the turbines or project facilities.¹³⁷

138. Section 5.2.16 of the Draft Site Permit requires that the Project not interfere with telecommunications.¹³⁸

139. Telephone service in the area is provided by Interstate Telecommunications Cooperative (ITC), Citizens Utilities, and Frontier Communications.¹³⁹

¹³² *Id.* at 34.

¹³³ *Id.* at 36.

¹³⁴ *Id.* at 37.

¹³⁵ *Id.* at 37.

¹³⁶ *Id.* at 37.

¹³⁷ Draft Site Permit at § 5.2.16 (“In the event the project or its operations cause such interference, the Permittee shall take timely measures necessary to correct the problem”).

¹³⁸ *Id.*

¹³⁹ Ex. 1 at 38 (Application).

140. Blazing Star 2 pledges that it will contact Gopher State One call prior to construction so as to identify and avoid underground facilities. Further, Blazing Star 2 states that to the extent its facilities cross, or otherwise affect, existing telephone lines and equipment, Blazing Star 2 will enter into agreements with service providers to avoid interference to those facilities.¹⁴⁰

141. Because of their height, modern wind turbines have the potential to interfere with existing communications systems that use microwave beams. The Project's turbines have been sited to avoid all identified microwave beam paths and communication systems.¹⁴¹

142. Comsearch conducted a Licensed Microwave Study for the Project. Blazing Star 2 adjusted the locations of two turbines identified by the Comsearch study as being within the "Fresnel Zones" of two microwave beam paths. Relocated outside of these zones, the facilities will be clear of the microwave beam path and avoid deflecting signals from their intended destinations.¹⁴²

143. Blazing Star 2 pledges that it will not operate the wind farm so as to cause microwave, radio, or navigation interference contrary to Federal Communications Commission (FCC) regulations or other law.¹⁴³

144. It is unlikely that construction and operation of the proposed wind farm will impact telephone service in or around the Project Area.¹⁴⁴

145. It is unlikely that television reception at homes relying upon cable or satellite television service will be impacted by construction or operation of the Project.¹⁴⁵

146. Construction of wind turbines has the potential to impact television reception from digital antennas for TV reception. This follows from occasional obstruction in the line of sight between residents relying on digital antennas for TV reception and the TV station antennas.¹⁴⁶

147. If interference to television service is reported to Blazing Star 2, Blazing Star 2 pledges to work with the affected parties to determine the cause of interference and, in appropriate circumstances, reestablish television reception and service.¹⁴⁷

148. No railroads are located within the Project Area and, therefore, the Project will not affect the operation of any railroad.¹⁴⁸

¹⁴⁰ *Id.* at 39.

¹⁴¹ *Id.*

¹⁴² *Id.*, Appendix C.

¹⁴³ *Id.* at 39-40; *see also* Draft Site Permit at § 5.2.16.

¹⁴⁴ Ex. 1 at 39.

¹⁴⁵ *Id.* at 38-41.

¹⁴⁶ *Id.* at 40-41.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 41.

149. The Project will be constructed to avoid impacts to pipelines and other underground infrastructure as well as overhead transmission lines.¹⁴⁹

150. Blazing Star 2 pledges to coordinate with Gopher State One Call and pipeline operators before and during construction of project facilities. These consultations will be undertaken to receive detail about existing infrastructure, resolve any safety concerns and to prevent possible structural conflicts.¹⁵⁰

J. Recreational Resources

151. Recreational opportunities in Lincoln County include hiking, biking, boating, fishing, camping, swimming, horseback riding, cross country skiing, snowmobiling, hunting, and wildlife tourism.¹⁵¹

152. Blazing Star 2 proposes to place turbines back from public lands based upon a minimum of the 3 RD by 5 RD setbacks from all non-leased properties, in accordance with the Commission's siting guidelines.¹⁵²

153. There are Wildlife Management Areas (WMA), Scientific and Natural Areas (SNA), and Waterfowl Protection Areas (WPA) within ten miles of the Project Area.¹⁵³

154. There are 17 WMAs within the Project Area and one WMA immediately adjacent to the Project Area.¹⁵⁴

155. In general, the Project will avoid all WMAs, SNAs, and NWR lands.¹⁵⁵

156. Project turbines and facilities will not be located within public parks, trails, WMAs, or in USFWS lands.¹⁵⁶

157. Turbines will be set back from public lands based upon a minimum of the 3 RD by 5 RD setbacks from all non-leased properties per the Commission siting guidelines.¹⁵⁷

158. MDNR offers a Walk-In Access (WIA) Program for public hunting on private land.¹⁵⁸

¹⁴⁹ *Id.* at 42.

¹⁵⁰ *Id.* at 42, 56.

¹⁵¹ *Id.* at 48.

¹⁵² *Id.* at 52; Ex. 4 at 2-3 (Smith Direct).

¹⁵³ Ex. 1 at 48-51 (Application).

¹⁵⁴ *Id.* at 48.

¹⁵⁵ *Id.* at 52.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

159. There are six WIA parcels within the Project Area covering 386 acres. Two WIA parcels also overlap as Reinvest in Minnesota easements.¹⁵⁹

160. There is one turbine and associated access road sited in a WIA. Additionally, a portion of another access road crosses a WIA to a turbine that is outside of the WIA. Blazing Star 2 may need to modify WIA areas on a temporary basis for the safety of the construction and operation staff. This could include temporary closures of WIAs. WIAs are typically subject to one to three-year contracts; as such, access changes from year to year based upon landowner participation. Any access disruptions associated with the Project would be typical of normal WIA management.¹⁶⁰

161. A section of the Lincoln County Snowmobile Trail bisects the Project along MN Route 19 and also along US Highway 75. Blazing Star 2 pledges to work with the Lincoln County Drift Clipper snowmobile club to determine if rerouting of the path is needed and to facilitate any modifications to the trail route.¹⁶¹

162. Blazing Star 2 pledges that it will work with landowners and the MDNR to address safety issues associated with WIA areas and snowmobile trails.¹⁶²

163. U.S. Highway 75, which is designated as a Minnesota scenic byway known as the “King of Trails”, traverses the length of the eastern portion of the Project Area. The Project Area is located in Section 5 of the King of Trails corridor. This section is characterized by both the local historical sites and the wind turbines that can be seen along the corridor. The King of Trails Coalition describes the wind turbines as having a positive impact to the viewshed, stating that:

[f]rom the road, many turbines can be seen, creating clean, renewable electricity. Electrical energy produced from wind is pollution free and it is also economical, competitive and plentiful along the Buffalo Ridge.¹⁶³

164. The Draft Site Permit includes a special condition intended to avoid or mitigate impacts to the King of Trail Scenic Byway.¹⁶⁴

165. In general, the impacts to recreational resources will be to view sheds and affect individuals using public lands near the Project Area.¹⁶⁵

166. Based upon the record, it is unlikely that that Project will have any significant adverse impacts to recreational resources in the area.¹⁶⁶

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.* at 28.

¹⁶⁴ Draft Site Permit at § 6.2; see also Ex. 4 at 4 (Smith Direct) (“This condition was also recently included in the Site Permit issued for the Red Pine Wind Project (adjacent to the Project), and Blazing Star 2 does not object to this condition being included in the Project’s Site Permit”) (citation omitted).

¹⁶⁵ Ex. 1 at 52 (Application).

¹⁶⁶ *Id.* at 28, 52.

K. Land-Based Economics

167. The majority of the land within the Project Area is used for agriculture. Cultivated land comprises approximately 38,138 acres (approximately 66 percent) of the Project Area.¹⁶⁷

168. Geronimo is still in negotiation with some property owners who own land within the Project Area and it anticipates adding acreage to the Project's leased lands before project construction begins.¹⁶⁸

169. Pasture and hay lands comprise approximately 6,010 acres (or approximately 11 percent) of the Project Area.¹⁶⁹

170. Land will be taken out of agricultural production where the turbines and access roads are located (approximately 0.5 to 1 acre for each turbine).¹⁷⁰

171. Less than one half of one percent of the Project Area will be converted to non-agricultural land use. This will not significantly alter crop production in the Project Area or Lincoln County.¹⁷¹

172. Landowners may continue to plant crops near, and graze livestock up to, the turbine pads. In some instances, agricultural practices will be impacted by requiring new maneuvering routes for agricultural equipment around the turbine structures.¹⁷²

173. Farming and livestock operations were underway alongside both the construction and operation of nearby wind energy projects.¹⁷³

174. Blazing Star 2 notes that turbine and facility siting will include discussions with property owners to identify features on their property – such as drain tiles – that should be avoided. Further, as detailed below, the Draft Site Permit reflects these consultations and reciprocal duties.¹⁷⁴

175. Section 5.2.4 of the Draft Site Permit requires Blazing Star 2 to implement measures to protect topsoil and to segregate topsoil from subsoil on all lands, unless otherwise negotiated with landowners.¹⁷⁵

176. Section 5.2.17 requires Blazing Star 2 to take precautions to protect livestock during all phases of the Project's life.¹⁷⁶

¹⁶⁷ *Id.* at 58.

¹⁶⁸ *Id.* at 18.

¹⁶⁹ *Id.* at 58.

¹⁷⁰ *Id.* at 59.

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ *Id.* at 60, 61.

¹⁷⁵ Draft Site Permit at § 5.2.4.

¹⁷⁶ *Id.* at § 5.2.17.

177. Section 5.2.19 of the Draft Site Permit requires Blazing Star 2 to promptly repair or replace all drainage tiles broken or damaged during all phases of the Project's life, unless otherwise negotiated with affected landowners.¹⁷⁷

178. Blazing Star 2 pledges to minimize impacts to Conservation Reserve Program (CRP) land and avoid all impacts to RIM lands.¹⁷⁸

179. If CRP land is impacted, Blazing Star 2 pledges to work with the landowner and the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) to remove the impacted portion of the parcel from the CRP program.¹⁷⁹

180. Blazing Star 2 does not propose mitigation plans for RIM land because, on this record, there do not appear to be adverse impacts to such land.¹⁸⁰

181. Based upon the record, it is unlikely that the Project will significantly impact the agricultural land use or the rural character of Lincoln County.¹⁸¹

182. Based upon the record, it is unlikely that that Project will have any significant adverse impacts to forestry, mining or tourism in the area.¹⁸²

L. Archaeological and Historic Resources

183. In May 2017, Blazing Star 2 started its consultations with the Minnesota State Historic Preservation Office (SHPO), Office of the State Archaeologist (OSA), and the South Dakota Historical Society Archaeological Research Center.¹⁸³

184. Further, staff from Merjent, Inc. (Merjent), cultural resource specialists to the Project, conducted a literature review based upon the Project Area and a one-mile buffer area.¹⁸⁴

185. The literature review revealed that there is one previously-documented archaeological site located within the Project Area and 12 previously-reported archaeological sites within the surrounding one-mile buffer area.¹⁸⁵

186. A total of 42 previously-reported architecture inventory resources are within the Project Area and one-mile buffer area. Of these, six of the inventoried resources are located within the Project Area.¹⁸⁶

¹⁷⁷ *Id.* at § 5.2.19.

¹⁷⁸ Ex. 1 at 60 (Application).

¹⁷⁹ *Id.* at 61.

¹⁸⁰ *Id.*

¹⁸¹ *Id.* at 59.

¹⁸² *Id.* at 59-61.

¹⁸³ *Id.* at 42.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.* at 43.

¹⁸⁶ *Id.* at 44.

187. Of the six architecture resources located within the Project Area, two are domestic farmsteads; two resources are transportation bridges; and two resources are schoolhouses. None of these resources have been evaluated for placement on the National Register of Historic Places (NRHP).¹⁸⁷

188. While the Project has been designed to avoid impacts to previously-reported archaeological resources within the Project Area, the proposed construction activities for the Project may have impacts to these sites and may add to the visual impacts on cultural resources near the Project Area.¹⁸⁸

189. Section 5.2.15 of the Draft Site Permit requires Blazing Star 2 to make every effort to avoid impacts to identified archaeological and historic resources. If such a resource is encountered, Blazing Star 2 must contact and consult with SHPO and OSA. Where feasible, avoidance of the resource is required. Where infeasible, mitigation must include an effort to minimize Project impacts consistent with SHPO and OSA requirements.¹⁸⁹

190. Additionally, Section 5.2.15 of the Draft Site Permit requires certain training of construction workers. Prior to the start of construction activities, workers must be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties are found.¹⁹⁰

191. If human remains are found during construction activities, the Draft Site Permit requires Blazing Star 2 to halt construction and promptly notify local law enforcement and OSA. Construction at such location shall not proceed until authorized by either local law enforcement or the OSA.¹⁹¹

192. Blazing Star 2 pledges that it will conduct an archaeological resources inventory and work cooperatively with SHPO and OSA. If archaeological resources are identified during the survey, an archaeologist will identify the location and record Universal Transverse Mercator coordinates so that Project construction layout team can consider the location and any adjustments to the construction plans. If Project construction plans cannot be adjusted, further investigation of the resource and consultations with SHPO and OSA may be needed.¹⁹²

193. Blazing Star 2 pledges that it will document any investigatory findings and share those reports with SHPO.¹⁹³

¹⁸⁷ *Id.* at 46.

¹⁸⁸ *Id.*

¹⁸⁹ Draft Site Permit at § 5.2.15.

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² Ex. 1 at 47 (Application).

¹⁹³ *Id.*

194. Based upon the record, it is unlikely that that Project will have any significant adverse impacts to archaeological or historic resources.¹⁹⁴

M. Aviation

i. Uses In and Near the Project Area

195. There are no registered airports located within the Project Area.¹⁹⁵

196. There are two public airports and three private airport-heliports within 20 miles of the Project Area. The nearest airport is Mulder Field Incorporated Airport, a private airport-heliport located approximately 1.6 miles east of the Project Area.¹⁹⁶

197. The closest public airport to the Project is the Tyler Municipal airport, located approximately six miles from the Project Area. Blazing Star 2 will coordinate with the Tyler Municipal airport, the FAA, and MnDOT prior to construction to understand potential impacts from the Project to local aviation.¹⁹⁷

198. Section 4.12 of the Draft Site Permit obliges Blazing Star 2 to meet the setbacks from airport facilities required by MnDOT and the FAA.¹⁹⁸

199. As part of a review by the FAA of Blazing Star 2's proposed layout, the FAA identified an impact to the Tyler radar facility. Blazing Star 2 has been working with the Department of Defense (DoD) to complete a mitigation and voluntary contribution agreement for the facility.¹⁹⁹

200. Blazing Star 2 has filed applications with the FAA for Determinations of No Hazard for turbine positions and a "No Hazard" issuance determination is expected. The FAA review will be for turbines with total height of up to 499 feet. If taller turbines are used, or if the project layout changes from what has been provided to the FAA, the Blazing Star 2 will re-file with the FAA for review of the changes.²⁰⁰

201. Blazing Star 2 pledges that marking and lighting of the wind and meteorological towers will comply with FAA requirements. It also pledges that it will confer with landowners and local airports regarding crop dusting activities and paint the top of meteorological towers red to improve visibility and reduce risks to crop dusters.²⁰¹

¹⁹⁴ *Id.* at 42-47.

¹⁹⁵ Ex. 1 at 54 (Application).

¹⁹⁶ *Id.* at 54.

¹⁹⁷ *Id.* at 55.

¹⁹⁸ Draft Site Permit at § 4.12.

¹⁹⁹ Ex. 1 at 55 (Application).

²⁰⁰ *Id.* at 54-55.

²⁰¹ *Id.* at 55.

202. The Project's permanent meteorological towers will be freestanding with no guy wires. Temporary meteorological towers will have supporting guy wires, but those wires will be marked with colored safety shields for increased visibility.²⁰²

203. Non-turbine facility lighting for the Project will be minimized by various means, including lighting the facilities only when necessary and using downward facing lights.²⁰³

204. The record demonstrates that Blazing Star 2 has taken steps to minimize and mitigate impacts to aviation. It is not anticipated that the construction and operation of the Project will have a significant impact on aviation.²⁰⁴

ii. Aircraft Detection Lighting System (ADLS)

205. Draft Site Permit Condition 6.1, requires that "lighting installed pursuant to . . . this permit shall comply with Aircraft Detection Lighting System standards specified in FAA Circular AC 70/7460-IL CHG 1 Chapter 14."²⁰⁵

206. ADLS involves the installation of a radar system around the perimeter of a wind project. When the radar detects an aircraft in the vicinity, it would activate wind turbine lighting. At other times, wind turbine lighting would remain off.²⁰⁶

207. ADLS was not an available technology when Blazing Star 2 began development efforts on this project.²⁰⁷

208. FAA reviews the use of ADLS on a case-by-case basis. There is no guarantee that the FAA will approve the use of ADLS for any specific project.²⁰⁸

209. Both Blazing Star 2 and EERA proposed revisions to the text of the Draft Site Permit regarding ADLS.²⁰⁹

210. Blazing Star 2 urges the Commission to rewrite the Draft Site Permit Condition 6.1, so as to include a study analyzing the feasibility of using ADLS at the Project. It proposes to analyze the cost of using ADLS, as well as the potential for Federal Aviation Administration (FAA) approval.²¹⁰

211. Blazing Star 2 maintains that because ADLS is an emerging technology, and because of the small number of potential suppliers, there is substantial uncertainty

²⁰² *Id.*

²⁰³ *Id.* at 28-29.

²⁰⁴ *Id.* at 28-29, 54-55.

²⁰⁵ Draft Site Permit at § 6.1.

²⁰⁶ Ex. 4 at 5 (Smith Direct).

²⁰⁷ *Id.*; Blazing Star 2's Post-Hearing Comments, *supra*.

²⁰⁸ *Id.*

²⁰⁹ Blazing Star 2's Post-Hearing Comments, *supra*; EERA's Post-Hearing Comments, *supra*.

²¹⁰ Ex. 4 at 5 (Smith Direct).

regarding the cost of ADLS. Blazing Star 2 states, preliminarily, that the costs of ADLS range widely – from \$500,000 to more than \$2 million.²¹¹

212. EERA argues that deployment of aircraft detection technology is appropriate in this instance. As it reasons, because ADLS is an approved mitigation measure in other jurisdictions, there are developers able to deploy such a system, and the added costs of an ADLS are small in comparison to the total installed capital cost for the entire project, installation should be required. EERA estimates that the additional costs of ADLS is between two tenths of a percent, to just over one-half a percent, of the total installed capital cost. Further, EERA contends that there is sufficient cost information in the record, such that an additional cost study is not needed. EERA urges the Commission to require Blazing Star 2 to promptly submit an application to the FAA for approval of a qualifying system.²¹²

213. Blazing Star 2 and EERA disagree as to the circumstances when Blazing Star 2 could appropriately avoid purchasing and deploying an ADLS. Blazing Star 2 proposes that it should be relieved of the duty to field an ADLS if its feasibility study “demonstrates that the FAA will not approve the use of ADLS at the Project.” EERA argues for a more stringent set of conditions: It maintains that not deploying an ADLS is only appropriate if: (1) The FAA denies Blazing Star 2’s application for an ADLS, or, (2) Blazing Star 2 cannot obtain FAA approval in a timely manner.²¹³

214. Importantly, it is not clear from this record how much the risk of an aerial collision will be reduced if Blazing Star 2 deploys an ADLS, but other, nearby turbines do not include such a system.²¹⁴

215. In the view of the Administrative Law Judge, neither party offers a sufficient solution to balancing the costs and safety risks. EERA, for its part, will not directly bear of any of the burdens of higher project costs and thus is freer to emphasize the safety benefits of an ADLS. Blazing Star 2, uncertain as to how a new regulatory requirement might impact the cost figures it has shared with investors and others, does not want a significant, unanticipated cost upsetting its investment-backed expectations. In such a circumstance, the Commission should decide how much added protection should be purchased, when it should be introduced, and at what price.²¹⁵

²¹¹ *Id.*; Blazing Star 2’s Post-Hearing Comments, *supra*, at 2.

²¹² EERA’s Post-Hearing Comments, *supra*, at 5-7.

²¹³ *Id.*; Blazing Star 2’s Post-Hearing Comments, *supra*, at 2-5.

²¹⁴ See Blazing Star 2’s Post-Hearing Comments, *supra*, at 2-5; see also Environmental Report at 58, *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*, MPUC Docket No. CN-16-289 (May 31, 2018) (eDocket No. 20185-143452-01) (noting that it is unclear how ADLS for a particular project “would be effective if only a portion of the turbines . . . utilize this technology and the surrounding wind projects do not. ADLS may be a more effective mitigation measure for new projects in areas with few to no LWECs or when all turbines in a given area . . . use the same technology”).

²¹⁵ See Ex. 4 at 5 (Smith Direct); Blazing Star 2’s Post-Hearing Comments, *supra*, at 3; Minn. R. 7854.0200 (The permitting powers of Minn. R. ch. 7854 are “intended to provide for the siting of large wind energy conversion systems in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources”).

216. To make such a determination, the Commission needs both additional information and sufficient time before project construction begins in order to review the added detail. Accordingly, Section 6.1 of the Draft Site Permit should be revised to reflect a balancing of the competing needs:

6.1 Aircraft Detection Lighting System

The Permittee shall conduct a study to determine the feasibility of installing a lighting system at the Project that is consistent with the Aircraft Detection Lighting System standards specified in Federal Aviation Administration (FAA) Circular AC 70/746—IL CHG 1 Chapter 14 (ADLS Feasibility Study). The ADLS Feasibility Study shall include, at a minimum:

- (a) detail as to the models and in-service dates of a sample of comparable ADL systems;
- (b) an assessment of the risk of a nighttime aerial collision with a Project turbine;
- (c) an analysis of the likely cost of installing an ADLS at the Project;
- (d) detail as to the presentment of one or more potential ADL systems for the Project, by the Permittee, to officials of the FAA; and,
- (e) responses, if any, from the FAA to the Permittee's presentation.

The Permittee must file the ADLS Feasibility Study with the Commission. The Permittee may not commence construction of wind turbine towers until the Commission reviews the ADLS Feasibility Study and considers whether ADLS should be imposed as a condition of this Permit.

The Permittee may commence construction no sooner than **90** days after providing such notice to the Commission without further Commission review under this section.²¹⁶

²¹⁶ Compare generally Draft Site Permit at § 6.1.

N. Wildlife

217. The Project Area hosts a number of resident and migratory species – including birds, mammals, fish, reptiles, amphibians and insects. These species use land within the Project Area habitat for foraging, breeding and shelter.²¹⁷

218. The resident species are representative of Minnesota game and non-game fauna routinely found in upland grass, farmlands, wetlands and forested areas.²¹⁸

219. Most of the migratory wildlife species in the area are birds, including waterfowl, raptors, and songbirds.²¹⁹

220. Mammals in the Project Area use the food and cover available from agricultural fields, grasslands, farm woodlots, wetland areas, and wooded ravines. Reptile and amphibian species in the Project Area include snakes, frogs and turtles.²²⁰

221. In June 2017, a Tier I and II Site Characterization Study (SCS) was completed for the proposed Project. The study identified quality habitats in native prairie, WMAs, WPAs and conservation easements; and sites of biodiversity significance within, and adjacent to, the Project Area.²²¹

222. Blazing Star 2 pledges that turbines will not be sited in WMAs, WPAs, or in a sites of biodiversity significance that is ranked as “moderate,” “high,” or “outstanding.”²²²

223. Depending upon the turbine model selected, the Project may impact up to 2.7 acres of sites that the MDNR characterizes as “below the minimum threshold” for biodiversity significance. These sites, while potentially suitable for conservation, are not MDNR-mapped native prairie, but “may still contain native prairie.”²²³

224. The MDNR urges the Commission to require avoidance of all native prairie.²²⁴

225. In July 2016, Blazing Star 2 began the first year of pre-construction avian surveys in the Project Area. The survey occurred between July 2016 and June 2017, and included spring migration and the early breeding season.²²⁵

²¹⁷ Ex. 1 at 85.

²¹⁸ *Id.*

²¹⁹ *Id.*

²²⁰ *Id.* at 89.

²²¹ *Id.* at 79, 82, Appendix E.

²²² *Id.* at 99.

²²³ Ex. 4 at 3 (Smith Direct); MDNR Comments, at 2; see *also* Ex. 1 at 94 (Application).

²²⁴ MDNR Comments, at 2.

²²⁵ Ex. 1 at 81 (Application).

226. Blazing Star 2 is continuing to conduct eagle surveys in, and around, the Project site.²²⁶

227. In April 2017, Blazing Star 2 initiated “Tier III studies” to provide baseline avian and bat use data. The Tier III studies are still in progress.²²⁷

228. Baseline avian and bat data have been incorporated into the ABPP. Blazing Star 2 will continue to share Tier III data with the USFWS and MDNR and coordinate implementation of the ABPP.²²⁸

229. In early April 2017, Blazing Star 2 conducted a raptor nest survey, in accordance with guidelines provided in the Eagle Conservation Plan Guidance (ECPG). No occupied or potential bald eagle nests were located within the Project Area.²²⁹

230. This survey work has informed the turbine siting process and placements away from quality habitats. Impacts to most wildlife species during construction are expected to be minimal.²³⁰

231. There is a high likelihood that individual bird fatalities will occur at the Project, but, as detailed below, these fatalities are unlikely to affect populations of most species, particularly at a regional scale.²³¹

232. The greatest mortality risks occur during the spring and fall migratory periods for birds and the fall migratory period for bats. Risks are lower during the breeding season; and at a minimum during the winter season, when passage rates and abundances of birds and bats are at seasonal lows.²³²

233. Publicly available studies from Minnesota and South Dakota suggest the range of estimated fatality rates is 0.44 to 5.59 birds/MW/study period, 0 to 0.37 raptors/MW/study period, and 0.16 to 20.19 bats/MW/study period.²³³

234. Blazing Star 2 projects that the fatality rates for birds and bats at the Project would be like that at other wind facilities in Minnesota and South Dakota.²³⁴

235. The MDNR views such a comparison with concern. It notes that the acoustic data has “verified high bat activity within the project area.” Given the number of proposed turbines, and the turbines already in operation in the region, it concludes that the “cumulative impacts for bat fatalities may be significant. . . .”²³⁵

²²⁶ Ex. 4 at 2 (Smith Direct).

²²⁷ Ex. 1 at 79, 82 (Application).

²²⁸ *Id.* at 82, Appendix G.

²²⁹ *Id.* at 84.

²³⁰ *Id.* at 90; Ex. 4 at 3 (Smith Direct).

²³¹ *Id.*

²³² Ex. 1, Appendix G at 34 (Application).

²³³ *Id.* at 30.

²³⁴ Ex. 4 at 3 (Smith Direct); Ex. 1 at 90, 93, Appendix G at 30 (Application).

²³⁵ MDNR Comments, *supra*, at 3.

236. In order to assess actual direct collision impacts to bird and bat species from the Project, post-construction mortality monitoring will be conducted at the site for a period up to two years. The length of the monitoring period will be established following a review of the data from the Tier 3 studies and in coordination with the USFWS and MDNR.²³⁶

237. There is some potential for species of avian wildlife to congregate within the Project Area, but neither the site visit nor the initial studies conducted to date have identified rookeries or communal avian roosting spots.²³⁷

238. Likewise, neither the USFWS nor the MDNR have identified specific concerns over habitat fragmentation.²³⁸

239. The result is not surprising because the project area is already highly fragmented and is a mosaic of cultivated cropland, herbaceous areas, pasture, open water, and wetlands. Most of the grasslands within the Project Area are relatively small and fragmented, and of low quality due to disturbance, grazing, haying, and the presence of invasive species. Because few intact natural communities exist within the Project Area, the risk of additional habitat fragmentation is small.²³⁹

240. The Project is within the range of the northern long-eared bat, and contains potentially-suitable habitat in the forested areas of the Project Area. It is most likely that the northern long-eared bat would be present in these areas during the summer months and during early fall migration.²⁴⁰

241. In 2016 and 2017, Blazing Star 2 conducted acoustic presence/probable absence surveys for northern long-eared bats in the Project Area. Qualitative analysis of the acoustic results from 2016 did not identify this specie in the Project Area nor was it identified by acoustic tests at any survey sites in 2017. The most likely conclusion is that the northern long-eared bat is not present in the Project Area.²⁴¹

242. Blazing Star 2 submitted a draft ABPP with its Application and proposes to submit an updated ABPP prior to Project construction.²⁴²

243. Blazing Star 2 proposes to minimize impacts to birds and bats by: avoiding high-use wildlife habitat (woodlands adjacent to farmsteads and WMAs/WPAs); using tubular towers to minimize perching; placing electrical collection lines underground as practicable; and minimizing project-related infrastructure.²⁴³

²³⁶ Ex. 1, Appendix G at 33 (Application).

²³⁷ *Id.* at 81.

²³⁸ *Id.*

²³⁹ *Id.*

²⁴⁰ *Id.*

²⁴¹ *Id.*

²⁴² *Id.* at 95, Appendix G (Application).

²⁴³ *Id.* at 90, 95.

244. Blazing Star 2 continues to consult with state and federal agencies regarding appropriate mitigation measures for wildlife impacts.²⁴⁴

245. The Project will maintain a three rotor diameter by five rotor diameter setback from WMAs and WPAs so as to reduce risk to waterfowl, waterbirds and grassland-associated birds.²⁴⁵

246. Section 7.5.1 of the Draft Site Permit requires Blazing Star 2 to utilize a qualified third party to conduct two full years of avian and bat fatality monitoring following the commencement of commercial operations. Monitoring activities and the review of survey results will be coordinated directly with the MDNR, USFWS, and the Commission. Detailed monitoring protocols, agency coordination, and any avoidance and minimization measures will be detailed in the Project's ABPP.²⁴⁶

247. Section 7.5 of the Draft Site Permit includes requirements to maintain an updated ABPP in coordination with MDNR, USFWS, and the Commission and submit quarterly and immediate incident reports. The ABPP includes standards for minimizing impacts to avian and bat species during construction and operation of wind energy projects.²⁴⁷

248. The ABPP is consistent with the guidelines and recommendations of the USFWS Wind Energy Guidelines. It includes Blazing Star 2's commitments to siting and transmission route suitability assessments; particular construction, design and operational practices; permit compliance measures; and worker training. It also includes additional avoidance and minimization measures that may be implemented if avian and bat mortalities exceed expected levels.²⁴⁸

249. The current record does not support imposing an additional 200 feet of buffer beyond the existing wind access buffer from MDNR Administered Lands, so as to reduce impacts from potential repowering activities in the future.²⁴⁹

250. While the principal function of a wind access buffer is to protect wind rights on non-participating properties, a three rotor diameter by five rotor diameter setback can reduce impacts to recreation and wildlife resources. Therefore, MDNR's concerns about impacts to nearby habitats would be useful to assess and address in the context of future upgrades to equipment.²⁵⁰

251. Lastly, Blazing Star 2 has pledged that it will work with the MDNR on reducing project-related impacts during construction and operation of the Project.²⁵¹

²⁴⁴ *Id.* at 95.

²⁴⁵ *Id.* at 94.

²⁴⁶ *Id.* at 95.

²⁴⁷ *Id.*

²⁴⁸ *Id.* at 95.

²⁴⁹ Ex. 4 at 2-3; EERA's Post-Hearing Comments, *supra*, at 4-5.

²⁵⁰ EERA's Post-Hearing Comments, *supra*, at 5; Ex. 1 at 94, 114 (Application); Ex. 4 at 3 (Smith Direct).

²⁵¹ Ex. 4 at 3 (Smith Direct).

252. Based upon the data gathered to date, and plans for the next phases of the Project, no significant adverse impacts to wildlife are anticipated from the Project.²⁵²

O. Rare and Unique Natural Resources

253. Section 7 of the Endangered Species Act (ESA) requires that all federal agencies:

insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species . . . unless such agency has been granted an exemption for such action. . . .²⁵³

254. Blazing Star 2 contacted the USFWS and MDNR to review the Project for threatened and endangered species and unique habitats.²⁵⁴

255. No records of federal-listed or state-listed plant species occur within the Project boundary.²⁵⁵

256. While the bald eagle has been delisted from the ESA, it is still protected by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). In addition, Minnesota law regulates the taking, importation, transportation, and sale of species that the DNR has listed as endangered or threatened.²⁵⁶

257. There are seven federally-listed species and a designated critical habitat within the Project Area.²⁵⁷

258. Natural Heritage Information System (NHIS) data show that there is one record of the state-endangered bird, a loggerhead shrike, in the Project Area. The shrike was last observed in 1995. To date, the loggerhead shrike has not been observed during pre-construction avian studies.²⁵⁸

259. There are also two avian and two plant species of state special concern within the Project Area. There are documented occurrences of one bird, one insect, and one plant that is state-listed as endangered or threatened, within five miles of the Project Area.²⁵⁹

²⁵² Ex. 1 at 90, 95, Appendix G at 30 (Application); Ex. 4 at 3 (Smith Direct).

²⁵³ 16 U.S.C. § 1536 (a) (2) (2018).

²⁵⁴ Ex. 1 at 96 (Application).

²⁵⁵ *Id.* at 99.

²⁵⁶ Minn. Stat. § 84.0895, subs 1, 3 (2018); Ex 1 at 95-96 (Application).

²⁵⁷ *Id.* at 96.

²⁵⁸ *Id.* at 97.

²⁵⁹ *Id.*

260. To date, no federal or state-listed threatened and endangered birds have been observed within the Project Area. Two state-listed special concern birds have been observed including American white pelican and Franklin's gull.²⁶⁰

261. There is no designated critical habitat within the Project Area.²⁶¹

262. Critical habitat for the Topeka shiner is designated within Lincoln County; however, this designation covers only the Medary Creek complex, in the southwestern portion of the County.²⁶²

263. The Project also avoids sites that have been designated by the MDNR as moderate, high or outstanding sites of biodiversity significance. Depending upon the turbine model selected, the Project may impact up to 2.7 acres of sites of biodiversity significance that are "below the minimum threshold," as defined by MDNR. In the estimation of the MDNR, these sites "may include areas of conservation value at the local level such as habitat for native plants and animals, corridors for animal movements, buffers surrounding higher quality natural areas, or areas with good potential for restoration of native habitat."²⁶³

264. Sections 4.7, 7.1, and 7.5 of the Draft Site Permit identify conditions to monitor and mitigate with respect to rare and unique natural resources.²⁶⁴

265. Most of the Project Area (approximately 66 percent) is in active crop production. Intact natural habitat within the Project Area consists of MDNR mapped native plant communities which may provide suitable habitat for listed species such as the Dakota skipper and Ottoe skipper. These areas also overlap areas designated as sites of moderate biodiversity significance by the MDNR.²⁶⁵

266. Blazing Star 2 pledges that it will conduct a preconstruction inventory of existing native prairie, woodlands, and wetlands, and, to the extent practicable, will avoid any rare and unique resources identified by the survey.²⁶⁶

267. Further, Blazing Star 2 pledges that it will implement measures to avoid potential impacts to federal- and state-listed species and rare or sensitive habitat. Such measures include: avoiding or minimizing placement of turbines in high quality native prairie, and continuing close coordination with the USFWS and MDNR.²⁶⁷

²⁶⁰ *Id.* at 81.

²⁶¹ *Id.* at 96.

²⁶² *Id.* at 80, 96.

²⁶³ Ex. 4 at 3 (Smith Direct); Guidelines for Assigning Statewide Biodiversity Significance Ranks to Minnesota County Biological Survey Sites (August 7, 2009) (eDocket No. 20113-60260-08).

²⁶⁴ Draft Site Permit at §§ 4.7, 7.1, 7.5.

²⁶⁵ Ex. 1 at 74, 80 (Application).

²⁶⁶ *Id.* at 99.

²⁶⁷ *Id.* at 99-100.

268. The Project design avoids MDNR-mapped native prairie and native plant communities.²⁶⁸

269. No impacts to rare or unique natural resources are anticipated by the Project.²⁶⁹

P. Vegetation

270. Less than one percent of the Project Area is identified as native prairie. Additionally, less than 0.1 percent of the Project Area is identified as hosting other native plant communities.²⁷⁰

271. Vegetation will be removed for the installation of turbine pads, access roads, substations and O&M facilities. The amount of vegetation that will be removed as a result of the Project will be determined once a site layout is finalized, but the vast majority is anticipated to be crop land.²⁷¹

272. Most of the turbines will be sited in plowed crop fields that, today, are typically planted in row crops. Depending upon the final layout, up to 92 acres of land will be permanently removed from production, while the areas surrounding each turbine will be available to be farmed, grazed, or otherwise managed as it was prior to installation of the wind farm. Less than one half of one percent of the Project Area will be permanently converted to sites for wind turbines, access roads and facilities.²⁷²

273. Temporary vegetation impacts will be associated with crane walkways, the installation of underground collection lines, and contractor staging and lay down areas. With ground disturbance and equipment deliveries from different geographic regions, Blazing Star 2 will work together with all Project construction parties entering the Project Area to control and prevent the introduction of invasive species. Blazing Star 2 pledges that to the extent practicable, direct permanent and temporary impacts to natural areas, including wetlands and native prairies, will be avoided and minimized.²⁷³

274. Blazing Star 2 further pledges that it will avoid disturbance of wetlands during construction and operation of the Project. If jurisdictional wetland impacts are later proposed, Blazing Star 2 agrees that it will obtain applicable wetland permits.²⁷⁴

275. Best Management Practices (BMPs) will be used during construction and operation to protect topsoil and adjacent resources and minimize soil erosion.²⁷⁵

²⁶⁸ *Id.* at 99; Ex. 4 at 3 (Smith Direct).

²⁶⁹ *Id.*

²⁷⁰ *Id.* at 75.

²⁷¹ *Id.* at 76.

²⁷² *Id.* at 59, 76.

²⁷³ *Id.* at 76.

²⁷⁴ *Id.* at 77.

²⁷⁵ *Id.*

276. Blazing Star 2 states that an important feature of its design is to minimize the clearing of existing trees and shrubs.²⁷⁶

277. Section 4.7 of the Draft Site Permit requires Blazing Star 2 to prepare a Prairie Protection and Management Plan, in consultation with MDNR, if native prairie is identified within the boundaries of the Project Area. The plan must detail the methods that will be used to avoid impacts to native prairie and to mitigate any unavoidable impacts.²⁷⁷

278. The Draft Site Permit forbids placement of project facilities in areas enrolled in the Native Prairie Bank Program. Project facilities may be placed in areas that include native prairie, but only if mitigation measures are specifically addressed in a Prairie Protection and Management Plan.²⁷⁸

279. The record demonstrates that Blazing Star 2 has taken steps to avoid and minimize impacts to vegetation. Further, the Draft Site Permit contains adequate conditions to monitor and mitigate the Project's potential impacts on vegetation.²⁷⁹

Q. Soils, Geologic, and Groundwater Resources

280. A soil association has a distinctive pattern of soils, relief, and drainage.²⁸⁰

281. Five soil associations are found within the Project Area: Flom-Barnes, Singaas-Flom, Langhei-Hamerly-Barnes, Forman-Buse-Aastad, and Vienna-Kranzburg-Hidewood.²⁸¹

282. Construction of the Project will increase the potential for soil erosion during construction and convert some prime farmland from agricultural uses to industrial uses.²⁸²

283. As noted above, less than one half of one percent of the Project Area will be permanently removed from agricultural production for the new use.²⁸³

284. Blazing Star 2 pledges that it will obtain a National Pollutant Discharge Elimination System (NPDES) permit from the MPCA, authorizing Blazing Star 2 to discharge stormwater from construction facilities. BMPs will be used during construction and operation to protect topsoil and adjacent resources and to minimize soil erosion.²⁸⁴

²⁷⁶ *Id.*

²⁷⁷ Draft Site Permit at § 4.7.

²⁷⁸ *Id.*

²⁷⁹ Ex. 1 at 75-77.

²⁸⁰ Ex. 1 at 64-65 (Application).

²⁸¹ *Id.* at 64-65.

²⁸² *Id.* at 66.

²⁸³ *Id.* at 59.

²⁸⁴ *Id.* at 66.

285. Blazing Star 2 pledges that a Stormwater Pollution Prevention Plan (SWPPP) will be developed prior to construction that will include BMPs such as silt fencing, revegetation plans, and management of exposed soils to prevent erosion.²⁸⁵

286. There are 42 located wells, and an additional 23 unverified well locations within the Project Area.²⁸⁶

287. A temporary batch plant may be needed to supply concrete for the construction of the Project. The batch plant may be able to use rural water service, but it is more likely to require well water. The water source will be determined prior to construction when a contractor is selected to construct the Project.²⁸⁷

288. Impacts to geologic and groundwater resources are not anticipated from construction. Use of water for operations will be negligible and will not create an undue burden on other uses. The batch plant operator will obtain the relevant permits for access to water supplies and address supply or drawdown issues in those permits.²⁸⁸

R. Surface Water and Wetlands

289. Blazing Star 2 identified surface water and floodplain resources for the Project Area by reviewing U.S. Geological Survey (USGS) topographic maps and Minnesota Public Waters Inventory (PWI) maps.²⁸⁹

290. The Project Area occurs within the Minnesota River Basin in the La Qui Parle River and Minnesota River-Granite Falls Watersheds. There are several unnamed intermittent and perennial streams and two county-designated ditches.²⁹⁰

291. There are 10 watercourses, 24 basins, and four wetlands in the Project Area that are listed as MDNR PWI public waters. All 10 PWI public watercourses are located partially inside the Project Area.²⁹¹

292. There are approximately 7,764 acres of NWI wetlands in the Project Area. More than 81 percent (6,294 acres) of the NWI wetland acreage is mapped as palustrine emergent wetlands. Freshwater Pond/Lake or palustrine unconsolidated bottom wetlands comprise 17 percent (1,315 acres) of the NWI wetland acreage. The remaining two percent (154 acres) are palustrine forested or palustrine scrub shrub. A total of 1,781 acres of PWI wetlands and basins are located within the Project Area, which may overlap with NWI.²⁹²

²⁸⁵ *Id.*

²⁸⁶ *Id.* at 67.

²⁸⁷ *Id.*

²⁸⁸ *Id.*

²⁸⁹ *Id.*

²⁹⁰ *Id.*

²⁹¹ *Id.* at 68.

²⁹² *Id.* at 72.

293. The Project will not require the appropriation of surface water or permanent dewatering. Temporary dewatering may be required during construction of specific turbine foundations or electrical trenches.²⁹³

294. Turbines will be constructed on relatively high elevation portions of the Project Area so as to maximize access to wind resources, and such elevations, are likely to avoid direct impacts to surface waters, floodplains, and wetlands.²⁹⁴

295. Blazing Star 2 pledges that it will design project facilities – such as access roads and substations – to avoid impacts on surface water resources. Project facilities, such as underground electrical collector lines, access roads, crane paths, turbine pads, step-up substation and the O&M building, have the potential to impact surface water runoff and cause sedimentation; however, these impacts are expected to be minimal.²⁹⁵

296. The Project will not impact known floodplain areas.²⁹⁶

297. Additionally, after field verification of wetlands, the Project facilities may, to the extent practicable, undergo minor shifts so as to avoid wetland features.²⁹⁷

298. Blazing Star 2 pledges to use best practices during construction and operation of the Project to protect topsoil, minimize soil erosion and protect surface water and floodplain resources from direct and indirect impacts. If the Project will permanently or temporarily impact waters of the United States, Minnesota PWIs or 100-year floodplains, Blazing Star 2 pledges that it will apply for the necessary permits prior to construction and will work with permitting agencies to minimize impacts. In addition, a SWPPP will be prepared, and an NPDES permit will be obtained before construction.²⁹⁸

299. Blazing Star 2 pledges that formal wetland delineations will be completed prior to construction, and the layout will be designed to avoid and minimize wetland impacts. If wetland impacts cannot be avoided, Blazing Star 2 will submit a permit application, prior to construction, to the United States Army Corps of Engineers (USACE) for dredge and fill within waters of the United States under Section 404 of the CWA, to the local government unit for Minnesota Wetland Conservation Act (WCA) coverage and the MPCA for Water Quality Certification under Section 401 of the Clean Water Act (CWA).²⁹⁹

300. 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

²⁹³ *Id.* at 70.

²⁹⁴ *Id.* at 70, 72.

²⁹⁵ *Id.* at 70.

²⁹⁶ *Id.*

²⁹⁷ *Id.* at 72.

²⁹⁸ *Id.* at 70-71.

²⁹⁹ *Id.* at 73.

collector or feeder lines may cross public waters or wetlands subject to applicable permits and approvals.³⁰⁰

301. Section 5.2.7 of the Draft Site Permit includes additional provisions related to wetlands; including a requirement that, to the extent feasible, any construction in wetlands occur during frozen ground conditions so as to minimize impacts. When winter construction is not possible, wooden or composite mats shall be used to protect wetland vegetation. Further, wetland and water resources disturbed by construction will be restored to pre-construction conditions, in accordance with applicable permits and landowner agreements.³⁰¹

S. Solid and Hazardous Wastes

302. A Phase I Environmental Site Assessment will be conducted for the Project to identify recognized environmental conditions or historical recognized environmental conditions. Blazing Star 2 pledges that any potential hazardous waste sites identified will be avoided.³⁰²

303. Three types of petroleum product fluids are necessary for turbine operation: gear box oil; hydraulic fluid; and gear grease.³⁰³

304. Blazing Star 2 pledges that if any wastes, fluids, or pollutants are generated during any phase of the operation of the Project, they will be handled, processed, treated, stored, and disposed of in accordance with Minn. R. Ch. 7045.³⁰⁴

305. Further, to avoid spill-related impacts, Blazing Star 2 pledges that it will develop a Spill Prevention, Control and Countermeasures (SPCC) Plan to prevent accidental releases of fuels and other hazardous substances. The SPCC will likewise detail response, containment, and cleanup procedures.³⁰⁵

306. Section 5.2.22 of the Draft Site Permit requires that all waste and scrap that is the product of construction must be removed and properly disposed of upon completion of each task. In addition, Section 5.2.23 of the Draft Site Permit requires Blazing Star 2 to take all appropriate precautions against pollution of the environment. It also makes Blazing Star 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.³⁰⁶

³⁰⁰ Draft Site Permit at § 4.6.

³⁰¹ Draft Site Permit at § 5.2.

³⁰² Ex. 1 at 57-58 (Application).

³⁰³ *Id.* at 57-58.

³⁰⁴ *Id.* at 58.

³⁰⁵ *Id.*

³⁰⁶ Draft Site Permit at §§ 5.2.22, 5.2.23.

307. The record demonstrates that Blazing Star 2 has taken steps to avoid and reduce potential impacts from solid and hazardous wastes. Further, the Draft Site Permit contains useful conditions to mitigate potential impacts from these materials.³⁰⁷

T. Future Development and Expansion

308. The Project is located in southwest Minnesota, where there are already many other large-scale wind energy facilities.³⁰⁸

309. Section 4.1 of the Draft Site Permit imposes a wind access buffer and provides for setbacks from properties where Blazing Star 2 does not hold wind rights.³⁰⁹

310. There is no evidence in the record that the Project is inconsistent with any future development or expansion plans.³¹⁰

U. Decommissioning, Turbine Abandonment, and Restoration

311. The anticipated life of the Project is approximately 30 years beyond the date of first commercial operation.³¹¹

312. Blazing Star 2 has reserved the right to extend operations instead of decommissioning at the end of the site permit term. In such a circumstance, Blazing Star 2 would apply for an extension of the LWECS Site Permit in order to continue operation of the Project. An extension of the permit could include operating with existing equipment or retrofitting the turbines and power system with newer equipment.³¹²

313. The Project decommissioning and restoration plan will be developed in accordance with the requirements of Minn. R. ch. 7836.0500, subp. 13 (2017). A decommissioning plan will be developed by Blazing Star 2 prior to the Project's pre-operation meeting with the Department of Commerce.³¹³

314. As provided in Section 11.1 of the Draft Site Permit, the Permittee must submit the decommissioning plan to the Commission prior to the pre-operation meeting. The decommissioning plan will document the methods and resources that Blazing Star 2 will use to properly decommission the Project at the appropriate time.³¹⁴

315. 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. Section 11.2 of the Draft Site Permit provides that Blazing Star 2 must dismantle and remove all towers, turbine generators, transformers, overhead and underground cables and lines, foundations, buildings, and ancillary equipment to a

³⁰⁷ Ex. 1 at 57-58.

³⁰⁸ *Id.* at 105.

³⁰⁹ *Id.* at 114.

³¹⁰ *See id.* at 21.

³¹¹ *Id.* at 114.

³¹² *Id.*

³¹³ *Id.* Draft Site Permit at § 11.1.

³¹⁴ *Id.*

depth of four feet. Any agreement for removal to a lesser depth, or no removal, shall be recorded in the county land records and shall show the locations of all such foundations. Further, Blazing Star 2 is required to restore and reclaim the site to its pre-Project topography and topsoil quality within 18 months of the Project's termination.³¹⁵

316. The Draft Site Permit contains appropriate conditions to ensure proper decommissioning and restoration of the Project site.³¹⁶

Any Finding that is more properly characterized as a Conclusion of Law, is hereby adopted as a conclusion.

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

CONCLUSIONS OF LAW

1. The Commission has jurisdiction to consider the Application.
2. Blazing Star 2 has substantially complied with the procedural requirements of Minn. Stat. ch. 216F, Minn. Stat. § 216E.03 (2018), and Minn. R. ch. 7854.
3. A public hearing was conducted in a community near the proposed Project. Proper notice of the public hearing was provided, and the public was given an opportunity to speak at the hearing and to submit written comments.
4. The Commission has the authority under Minn. Stat. § 216F.04 to place appropriate conditions in a LWECS site permit.
5. The Draft Site Permit has reasonable mitigation measures and conditions that address the potential impacts of the Project on human and natural environments.
6. It is reasonable to amend the Draft Site Permit Sections 3.1 and 6.1, as detailed above.
7. The Project complies with the criteria in Minnesota Statutes chapter 216F and Section 216E.03, subd. 7, and Part 7854 of the Minnesota Rules.
8. The Project, with Conditions 3.1 and 6.1 of the Draft Site Permit modified as noted above, satisfies the site permit criteria for an LWECS in Minn. Stat. § 216F.03 and meets all other applicable requirements.
9. The Project, with the modified Draft Site Permit Conditions, is not likely to pollute, impair, or destroy natural resources located within the state as those terms are used in the Minnesota Environmental Rights Act.

³¹⁵ Ex. 1 at 114 (Application); Draft Site Permit at § 11.2.

³¹⁶ See Draft Site Permit at §§ 11.1, 11.2, 11.3.

10. The Project, with the modified Draft Site Permit Conditions, is not likely to pollute, impair, or destroy natural resources located within the state as those terms are used in the Minnesota Environmental Policy Act.

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

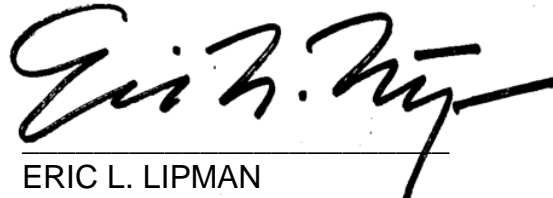
Based upon these Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATIONS

The Commission should issue a Site Permit:

- (a) to Blazing Star Wind Farm 2, LLC to construct and operate the Project and associated facilities in Lincoln County, and,
- (b) that includes the text of the Draft Site Permit as modified above.

Dated: August 6, 2018



ERIC L. LIPMAN
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. 7829.1275, 7829.2700 (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.

August 6, 2018

See Attached Service List

Re: In the Matter of the Application of Blazing Star Wind Farm 2, LLC for a Site permit for the up to 200 MW Blazing Star 2 Wind Project in Lincoln County

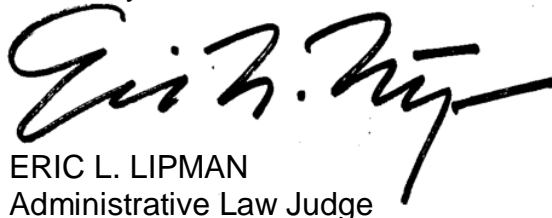
**OAH 8-2500-35225
MPUC IP-6985/TL-17-700**

To All Persons on the Attached Service List:

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

If you have any questions, please contact my legal assistant Sheena Denny at (651) 361-7881 or sheena.denny@state.mn.us, or facsimile at (651) 539-0310.

Sincerely,



ERIC L. LIPMAN
Administrative Law Judge

ELL:sd
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

In the Matter of the Application of Blazing Star Wind Farm 2, LLC for a Site permit for the up to 200 MW Blazing Star 2 Wind Project in Lincoln County	OAH Docket No.: 8-2500-35225
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Sheena Denny, certifies that on August 6, 2018 she served the true and correct **SUMMARY OF PUBLIC TESTIMONY, 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	Address	Delivery Method	View Trade Secret
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1800 St. Paul, MN 55101	Electronic Service	Yes
Ian	Dobson	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St. St. Paul, MN 551012130	Electronic Service	Yes
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No
Eric	Lipman	eric.lipman@state.mn.us	Office of Administrative Hearings	PO Box 64620 St. Paul, MN 551640620	Electronic Service	Yes
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	7400 Lyndale Ave S Ste 190 Richfield, MN 55423	Electronic Service	Yes
Patrick	Smith	patrick@geronimoenergy.com	Geronimo Wind Energy, LLC	7650 Edinborough Way Ste 725 Edina, MN 55435-5239	Electronic Service	No
Haley	Waller Pitts	hwallerpitts@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 55402	Electronic Service	No
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes