

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

**In the Matter of the Application of Elk
Creek Solar, LLC for a Certificate of Need
for the up to 80 Megawatt Elk Creek Solar
Project in Rock County, Minnesota**

**In the Matter of the Application of Elk
Creek Solar, LLC for a Site Permit for the
up to 80 Megawatt Elk Creek Solar Project
in Rock County, Minnesota**

MPUC Docket No. IP-7009/CN-19-351;
OAH Docket No. 71-2500-36619 and
MPUC Docket No. IP-7009/GS-19-495

**ELK CREEK SOLAR, LLC'S
PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND
RECOMMENDATIONS**

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This matter was assigned to Administrative Law Judge Jessica Palmer-Denig (“ALJ”) to conduct a public hearing on the Certificate of Need (MPUC Docket No. 19-351) and Site Permit (MPUC Docket No. 19-495) Applications of Elk Creek Solar, LLC (“Elk Creek” or “Applicant”) for a 80 MW solar energy generating system in Rock County (the “Project”). The Public Utilities Commission also requested that the ALJ prepare a summary report.

A public hearing on the Site Permit and Certificate of Need Applications for the Project was held on July 23, 2020 by remote means. The factual record remained open until August 10, 2020, for the receipt of written public comments.

Jeremy P. Duehr, Fredrikson & Byron, P.A., 200 South Sixth Street, Suite 4000, Minneapolis, Minnesota 55402, and Melissa Schmit, Director of Permitting, Jordan Burmeister, Senior Project Manager, Michael Morris, Senior Director, Energy Assessment and Project Planning, and Chip LaCasse, Construction Manager, Geronimo Energy, LLC, a National Grid Company (“Geronimo”), 8400 Normandale Lake Blvd. Suite 1200, Bloomington, Minnesota 55347 appeared on behalf of Elk Creek.

Bill Storm, Environmental Review Manager, 445 Minnesota Street, Suite 1500, St. Paul, MN 55101 appeared on behalf of the Department of Commerce, Energy Environmental Review and Analysis (“EERA”).

Michael Kaluzniak, Minnesota Public Utilities Commission (the “Commission” or “MPUC”) Staff, 121 Seventh Place East, Suite 350, St. Paul, MN 55101 appeared on behalf of the Commission.

STATEMENT OF ISSUE

Has Elk Creek satisfied the criteria set forth in Chapter 216E of the Minnesota Statutes and Chapter 7850 of the Minnesota Rules for a Site Permit for the proposed Project?

SUMMARY OF RECOMMENDATION

Elk Creek has satisfied the applicable legal requirements and, accordingly, the Commission should grant a Site Permit for the Project, subject to the conditions discussed below.

Based on the evidence in the hearing record, the Commission makes the following:

FINDINGS OF FACT

I. APPLICANT

1. Elk Creek Solar, LLC, is a wholly owned subsidiary of Geronimo. Geronimo is a utility-scale renewable energy developer headquartered in Bloomington, Minnesota.¹

2. Geronimo has developed several operating wind farms and solar projects throughout the United States – over 2,400 megawatts (“MW”) of renewable energy projects that are either operational or are currently under construction, including approximately 100 utility-scale and community solar projects completed.²

3. Geronimo also developed the Prairie Rose Wind Farm in Rock County, Minnesota. The Prairie Rose Wind Farm became operational in 2012.³

II. SITE PERMIT APPLICATION AND RELATED PROCEDURAL BACKGROUND

4. On September 13 and 16, 2019, Elk Creek filed a Site Permit Application (“SP Application”) with the Commission for the Project.⁴

5. On September 20, 2019, the Commission issued a Notice of Comment Period on Site Permit Application Completeness.⁵ The Notice requested comments on whether Elk Creek’s SP Application was complete within the meaning of the Commission’s rules.⁶

6. On September 25, 2019, Elk Creek notified those persons on the Commission’s general service list, landowners and local government officials that Elk Creek filed the SP Application.⁷

¹ Ex. 7 at 1 (SP Application).

² Meeting Presentation (July 28, 2020), GS Docket, eDockets Document No. [20207-165342-02](#).

³ Ex. 7 at 8 (SP Application).

⁴ Ex. 7 (SP Application).

⁵ Ex. 9 (Notice of Site Permit).

⁶ Ex. 9 (Notice of Site Permit).

⁷ Affidavits of Mailing (Sept. 25, 2019), GS Docket, eDockets Document No. [20208-166026-01](#).

7. On September 26, 2019, the Notice of Elk Creek filing its SP Application was published in the *Star Herald*.⁸

8. On October 4, 2019, the EERA Staff filed comments with the Commission recommending that the Commission accept the SP Application as complete.⁹

9. On October 11, 2019, Elk Creek filed Reply Comments in response to public comments raised during the completeness comment period.¹⁰

10. On October 25, 2019, the Commission issued a Notice of Commission Meeting scheduling a meeting for November 7, 2019 to address whether to accept the SP Application as substantially complete and to authorize review under the alternative permitting process; whether to process the CN Application and the SP Application jointly; what procedural process to authorize for evaluation of the SP Application; and whether to vary the time limits of Commission rules relating to application completeness.¹¹

11. On December 23, 2019, the Commission issued an Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process, which: ordered the combination of the site permit application review process with the certificate of need application review process to the extent practicable; authorized review of the SP Application under the alternative permitting process defined in Minnesota Statute § 216B.04 and Minnesota Rule 7850.2800 to 7850.3900; requested that an ALJ from the Office of Administrative Hearings (“OAH”) preside over a hearing and prepare a summary report; approved the sample site permit for public review during the review process (“Sample Site Permit”); and address various other administrative matters.¹²

12. On December 23, 2019, the Commission issued a Notice of Public Information and Environmental Assessment Scoping Meeting scheduling a meeting on January 13, 2020 in Luverne, Minnesota and announcing that written comments would be accepted through January 28, 2020.¹³ The Notice of Public Information and Environmental Assessment Scoping Meeting was mailed to landowners and local units of government located within and adjacent to the Project.¹⁴ The Notice requested comments on issues and facts that should be considered in the development of the environmental assessment.¹⁵ During this comment period, written comments

⁸ Ex. 308 (Public Information and Scoping Meeting Newspaper Notice), GS Docket, eDockets Document No. [20208-166030-01](#).

⁹ Ex. 100 (Comments and Recommendations).

¹⁰ Ex. 11 (Reply Comments).

¹¹ Notice of Commission Meeting—Nov. 7, 2019 (Oct. 25, 2019), GS Docket, eDockets Document No. [201910-156898-02](#).

¹² *Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process* (December 23, 2019), GS Docket, eDockets Document No. [201912-158561-01](#).

¹³ Notice of Public Information and EA Scoping Meeting (December 23, 2019), GS Docket, eDockets Document No. [201912-158585-01](#), [03](#).

¹⁴ Notice of Public Information and EA Scoping Meeting (December 23, 2019), GS Docket, eDockets Document No. [201912-158585-01](#), [03](#).

¹⁵ Notice of Public Information and EA Scoping Meeting (December 23, 2019), GS Docket, eDockets Document No. [201912-158585-01](#), [03](#).

were received from one member of the public, the Minnesota Department of Natural Resources, the Mayor of the City of Luverne and Rock County.¹⁶

13. On January 2, 2020, the Notice of Public Information and Environmental Assessment Scoping Meeting was published in the *Star Herald*.¹⁷

14. On January 13, 2020, the Commission and the EERA Staff held a public meeting in Luverne, Minnesota to provide the public with information about the Project and to solicit comments on the scope of the environmental assessment.¹⁸ At the meeting, three members of the public asked general questions about the Project.¹⁹ One member of the public expressed support for the Project.²⁰ No alternatives to Elk Creek's proposed site were presented at the public meeting.²¹

15. On February 6, 2020, the EERA Staff filed the Environmental Assessment Scoping Decision ("EASD"), which set forth the matters proposed to be addressed in the environmental assessment and identified certain issues outside the scope of the environmental assessment.²² No site alternatives were recommended for study, accordingly, no site alternative other than the site location proposed by Elk Creek would be considered in the environmental assessment.²³

16. On April 15, 2020, the ALJ issued a Notice of Prehearing Conference setting the prehearing conference for May 4, 2020.²⁴

17. On May 5, 2020, the ALJ issued a Scheduling Order setting a joint public hearing on the Certificate of Need Application ("CN Application") and SP Application for July 23, 2020 and setting forth other procedural deadlines in the proceedings.²⁵ The ALJ amended the scheduling order on July 9, 2020 and August 6, 2020.²⁶

18. On June 17, 2020, the EERA Staff issued the environmental assessment for the Project ("Environmental Assessment").²⁷ Notice of the availability of the Environmental Assessment was also published in the *EQB Monitor*.²⁸

¹⁶ Ex. 103 (Written Public Comments--EA Scope).

¹⁷ Ex. 308 (Public Information and Scoping Meeting Newspaper Notice), GS Docket, eDockets Document No. [20208-166030-01](#).

¹⁸ Ex. 102 (Oral Public Comments – EA Scope).

¹⁹ Ex. 102 (Oral Public Comments – EA Scope).

²⁰ Ex. 102 (Oral Public Comments – EA Scope).

²¹ Ex. 102 (Oral Public Comments – EA Scope).

²² Ex. 104 (EA Scoping Decision).

²³ Ex. 104 at 6 and 9 (EA Scoping Decision).

²⁴ Notice of Prehearing Conference (April 15, 2020), GS Docket, eDockets Document No. [20204-16128-02](#).

²⁵ Scheduling Order (May 5, 2020), GS Docket, eDockets Document No. [20205-162925-01](#).

²⁶ Amended Scheduling Order (July 9, 2020), GS Docket, eDockets Document No. [20207-164751-01](#), Second Amended Scheduling Order (August 6, 2020), GS Docket, eDockets Document No. [20208-165642-01](#).

²⁷ Exs. 106 (EA) and 105 (Notice of EA Availability).

²⁸ Ex. 107 (*EQB Monitor* Notice of EA Availability).

19. On June 29, 2020, the Commission issued Notice of Public Hearing and Comment Period notifying the public of the July 23, 2020 and initiating a public comment period to close on August 10, 2020.²⁹

20. On July 17, 2020, Elk Creek submitted direct testimony from Melissa Schmit, Michael Morris and Jordan Burmeister.³⁰

21. On July 23, 2020, the ALJ presided over a joint public hearing on the SP Application and the CN Application for the Project via remote means. Commission Staff, EERA Staff, and representatives from Elk Creek were present. Approximately four members of the public spoke at the hearing.³¹ In addition, several additional written comments were received on the Project before the close of the comment period on August 10, 2020.³²

III. CERTIFICATE OF NEED APPLICATION AND RELATED PROCEDURAL BACKGROUND

22. On May 28, 2019, Elk Creek filed a Request for Exemption from Certain Certificate of Need Application Content Requirements with the Commission requesting exemptions from certain Certificate of Need data requirements.³³

23. On June 7, 2019, the Commission issued a notice of Comment Period on Request for Exemptions from Certain Certificate of Need Filing Requirements, which opened an initial written comment period until June 28, 2019, and a reply comment period until July 8, 2019.³⁴

24. On June 27, 2019, the Staff of the Department of Commerce, Division of Energy Resources (“DER”) filed comments recommending that the Commission approve the data exemption requests.³⁵

25. On July 8, 2019, Elk Creek filed reply comments concurring with the DER Staff’s recommendation.³⁶

26. On July 12, 2019, the Commission issued a Notice of Commission Meeting scheduling a meeting for July 26, 2020 to consider whether to grant Elk Creek’s data exemption requests with one modification.³⁷

27. On August 19, 2019, the Commission issued an Order Approving Elk Creek’s Data Exemption Requests.³⁸

²⁹ Notice of Public Hearing and Comment Period (June 29, 2020), GS Docket, eDockets Document No. [20206-164333-01](#).

³⁰ Exs. 15 (Schmit Testimony) 16 (Morris Testimony) and 17 (Burmeister Testimony).

³¹ See generally, Pub. Hr’g Tr., GS Docket, eDockets Document No. [20208-165804-02](#).

³² E.g., *Public Comment – Westgor* (August 10, 2020), *Chambers Family Farms* (August 10, 2020), *Schneiderman* (August 10, 2020) GS Docket, eDockets Document No. [20208-165787-01](#).

³³ Ex. 1 (Request for Exemption).

³⁴ Notice of Comment Period, CN Docket, eDockets Document No. [20196-153416-01](#).

³⁵ Comments (June 27, 2019), CN Docket, eDockets Document No. [20196-153939-01](#).

³⁶ Ex. 2 (Reply Comments).

³⁷ Notice of Commission Meeting—July 26, 2019 (July 12, 2019), CN Docket, eDockets Document No. [20197-154319-01](#).

28. On September 13, 2019, Elk Creek filed its CN Application.³⁹ Elk Creek is seeking a Certificate of Need under Minn. Stat. § 216B.243.⁴⁰

29. On September 20, 2019, the Commission issued a Notice of Comment Period on CN Application Completeness announcing it would accept written comments through October 4, 2019 and reply comments through October 11, 2019.⁴¹

30. On October 4, 2019, the DER Staff filed written comments recommending “that the Commission find the application to be complete” pending the submission of additional information and “that the Commission evaluate the Petition using the Commission’s informal comment process.”⁴² On October 7, 2019, the DER Staff filed corrected comments removing reference to an applicant other than Elk Creek.⁴³

31. On October 11, 2019, Elk Creek filed reply comments providing the additional information requested by DER Staff.⁴⁴

32. On October 25, 2019, the Commission issued a Notice of Commission Meeting scheduling a meeting on November 7, 2019 to consider whether to accept the CN Application as complete; whether to direct that it be evaluated using the informal review process or refer it to OAH for contested case proceedings; whether it should direct that the CN Application and SP Application be processed jointly; and whether it should vary the time limits of its rules that relate to application completeness.⁴⁵

33. On December 23, 2019, the Commission issued an Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process, which: authorized review of the CN Application using the informal review process; ordered the combination of the SP Application review process with the CN Application review process to the extent practicable; requested that an ALJ from the OAH preside over a hearing and prepare a summary report; and address various other administrative matters.⁴⁶

34. On December 23, 2019, the Commission issued a Notice of Public Information and Environmental Assessment Scoping Meeting scheduling a meeting on January 13, 2020 in Luverne, Minnesota and announcing that written comments would be accepted through January 28, 2020.⁴⁷ The Notice of Public Information and Environmental Assessment Scoping Meeting was mailed to landowners and local units of government located within and adjacent to the

³⁸ Order Granting Exemptions (August 19, 2019), CN Docket, eDockets Document No. [20198-155289-01](#).

³⁹ Exs. 4, 5, and 6 (CN Application).

⁴⁰ Exs. 4, 5, and 6 (CN Application).

⁴¹ Ex. 302 (Comment Period).

⁴² Comments (Oct. 4, 2019), CN Docket, eDockets Document No. [201910-156336-01](#).

⁴³ Corrected Comments (Oct. 7, 2019), CN Docket, eDockets Document No. [201910-156400-01](#).

⁴⁴ Ex. 10 (Reply Comments).

⁴⁵ Notice of Commission Meeting (October 25, 2019), CN Docket, eDockets Document No. [201910-156898-01](#).

⁴⁶ *Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process* (December 23, 2019), CN Docket, eDockets Document No. [201912-158561-02](#).

⁴⁷ Notice of Public Information and EA Scoping Meeting (December 23, 2019), CN Docket, eDockets Document No. [201912-158585-02](#), [04](#).

Project.⁴⁸ The Notice requested comments on issues and facts that should be considered in the development of the Environmental Assessment.⁴⁹ During this comment period, written comments were received from one member of the public, the Minnesota Department of Natural Resources, the Mayor of the City of Luverne and Rock County.⁵⁰

35. On January 2, 2020, the Notice of Public Information and Environmental Assessment Scoping Meeting was published in the *Star Herald*.⁵¹

36. On January 9, 2020, the Commission issued a Notice of Comment Period on the Merits of the CN Application.⁵² On January 10, 2020, the Commission issued a Revised Notice of Comment Period on the Merits of the CN Application.⁵³ The Revised Notice requested comments as to whether there any contested issues of fact with respect to the representations made in the CN Application, whether the Commission should grant a certificate of need for the Project and whether there are any other issues or concerns related to this Project.⁵⁴

37. On January 13, 2020, the Commission and the EERA Staff held a public meeting in Luverne, Minnesota to solicit comments on the scope of the Environmental Assessment.⁵⁵ At the meeting, three members of the public asked general questions about the Project.⁵⁶ No alternatives to Elk Creek's proposed site were presented at the public meeting.⁵⁷

38. On February 6, 2020, the EERA Staff filed the EASD, which set forth the matters proposed to be addressed in the Environmental Assessment and identified certain issues outside the scope of the Environmental Assessment.⁵⁸ No site alternatives were recommended for study, accordingly, no site alternative other than the site location proposed by Elk Creek was considered in the Environmental Assessment.⁵⁹

39. On April 8, 2020, the DER Staff filed written comments recommending "that the Commission consider the impacts demonstrated by the environmental [assessment] and, if the impacts are acceptable, approve the petition."⁶⁰

⁴⁸ Notice of Public Information and EA Scoping Meeting (December 23, 2019), CN Docket, eDockets Document No. [201912-158585-02](#), [04](#).

⁴⁹ Notice of Public Information and EA Scoping Meeting (December 23, 2019), CN Docket, eDockets Document No. [201912-158585-02](#), [04](#).

⁵⁰ Ex. 103 (Written Public Comments--EA Scope).

⁵¹ Ex. 308 (Public Information and Scoping Meeting Newspaper Notice), GS Docket, eDockets Document No. [20208-166030-01](#).

⁵² Notice of Comment Period on the Merits of the CN Application (January 9, 2020), CN Docket, eDockets Document No. [20201-158954-01](#).

⁵³ Revised Notice of Comment Period on the Merits of the CN Application (January 9, 2020), CN Docket, eDockets Document No. [20201-159016-01](#).

⁵⁴ Revised Notice of Comment Period on the Merits of the CN Application (January 9, 2020), CN Docket, eDockets Document No. [20201-159016-01](#).

⁵⁵ Ex. 102 (Oral Public Comments – EA Scope).

⁵⁶ Ex. 102 (Oral Public Comments – EA Scope).

⁵⁷ Ex. 102 (Oral Public Comments – EA Scope).

⁵⁸ Ex. 104 (EA Scoping Decision).

⁵⁹ Ex. 104 at 6 and 9 (EA Scoping Decision).

⁶⁰ Comments (Apr. 8, 2020), CN Docket, eDockets Document No. [20204-161900-01](#).

40. On April 15, 2020, the ALJ issued a Notice of Prehearing Conference setting the prehearing conference for May 4, 2020.⁶¹

41. April 17, 2020, Elk Creek filed reply comments concurring with the DER Staff's recommendation to approve the certificate of need for the Project.⁶²

42. On May 5, 2020, the ALJ issued a Scheduling Order setting a joint public hearing on the Certificate of Need and SP Applications for July 23, 2020 and setting forth other procedural deadlines in the proceedings.⁶³ The ALJ amended the scheduling order on July 9, 2020 and August 6, 2020.⁶⁴

43. On June 17, 2020, the EERA Staff issued the Environmental Assessment for the Project.⁶⁵ Notice of the availability of the Environmental Assessment was also published in the *EQB Monitor*.⁶⁶

44. On June 29, 2020, the Commission issued Notice of Public Hearing and Comment Period notifying the public of the July 23, 2020 and initiating a public comment period to close on August 10, 2020.⁶⁷

45. On July 17, 2020, Elk Creek submitted direct testimony from Melissa Schmit, Michael Morris and Jordan Burmeister.⁶⁸

46. On July 23, 2020, the ALJ presided over a joint public hearing on the SP Application and the CN Application for the Project via remote means. Commission Staff, EERA Staff, and representatives from Elk Creek were present. Approximately four members of the public spoke at the hearing.⁶⁹ In addition, several additional written comments were received on the Project before the close of the comment period on August 10, 2020.⁷⁰

IV. DESCRIPTION OF THE PROJECT

47. The proposed Project is an up to 80 MW alternating current ("AC") nameplate capacity solar energy conversion facility in Vienna Township, Rock County, Minnesota. The Project would also include associated facilities.⁷¹

⁶¹ Notice of Prehearing Conference (April 15, 2020), CN Docket, eDockets Document No. [20204-16128-01](#).

⁶² Ex. 13 (Reply Comments).

⁶³ Scheduling Order (May 5, 2020), CN Docket, eDockets Document No. [20205-162925-02](#).

⁶⁴ Amended Scheduling Order (July 9, 2020), CN Docket, eDockets Document No. [20207-164751-02](#), Second Amended Scheduling Order (August 6, 2020), CN Docket, eDockets Document No. [20208-165640-01](#).

⁶⁵ Exs. 106 (EA) and 105 (Notice of EA Availability).

⁶⁶ Ex. 107 (*EQB Monitor* Notice of EA Availability).

⁶⁷ Notice of Public Hearing and Comment Period (June 29, 2020), CN Docket, eDockets Document No. [20206-164333-02](#).

⁶⁸ Exs. 15 (Schmit Testimony); 16 (Morris Testimony) and 17 (Burmeister Testimony).

⁶⁹ See generally, Pub. Hr'g Tr., CN Docket, eDockets Document No. [20208-165804-01](#).

⁷⁰ E.g., *Public Comment – Westgor* (August 10, 2020), *Chambers Family Farms* (August 10, 2020), *Schneiderman* (August 10, 2020) GS Docket, eDockets Document No. [20208-165787-01](#).

⁷¹ Ex. 7 at 1 (SP Application).

48. The components of the Project include solar panels and racking; inverters, security fencing, a Project substation, gravel access roads, an operations and maintenance building, on-site below-ground, above-ground or a hybrid combination of above-ground and below-ground electrical collection and communication lines, and up to two weather stations (up to 20 feet tall).⁷² There are five laydown areas proposed for the below-ground, hybrid and above-ground configurations with slight variations based on the configuration.⁷³

49. The Project will utilize photovoltaic (“PV”) solar panels with tempered glass varying in size approximately 4 to 6.5 feet long by 2 to 3.5 feet wide, and 1 to 2 inches thick. Depending on the technology selected, the PV panels may have an aluminum frame, silicon, and weatherized plastic backing or a side-mount or under-mount aluminum frame, heat strengthened front glass, and laminate material encapsulation for weather protection.⁷⁴

50. The panels will be installed on a tracking rack system, generally aligned in north-south rows, that utilizes galvanized steel and aluminum for the foundations and frame with a motor that allows the racking to rotate from east to west throughout the day. Each tracking rack will contain multiple panels. On the tracking rack system, panels will be approximately 15 feet in height from the ground to the top of the panels when at a 45-degree angle. Height may vary due to manufacturer, topography and vegetation constraints and could reach a height of approximately 20 feet from the ground. The tracking rack system will be mount on top of steel piers that are typically driven into the ground.⁷⁵

51. Electrical wiring will connect the panels to inverters, which will convert the power from direct current (“DC”) to AC. Inverters convert approximately 1,500 volts of DC output of the PV panels to between 650-950 volts of AC. The AC will be stepped up through a transformer from the inverter output voltage to 34.5 kilovolt (“kV”) and brought via the collection cables to the Project substation. The electrical collection system will be installed below-ground, above-ground, or a combination of both.⁷⁶

52. If electrical cables are installed below-ground, the DC and AC electrical cables that will be located in a below-ground trench (approximately four feet deep). Cables connecting each unit of solar arrays will be directionally bored under county roads.

53. If electrical cables are installed above-ground, the DC collection cables will be strung under each row of panels on steel arms and a steel cable attached to the steel piers. At the end of each row, hanging brackets would connect several racks/rows of cables to a common collection point near their assigned inverter/transformer skid where the cables will be routed below-ground at the minimum depth of at least four feet below grade to the inverter/transformer skid.⁷⁷ The electrical cables will then be routed below-ground at a minimum depth of at least four feet below grade to a distribution-type pole. These poles would be made of wood,

⁷² Ex. 7 at 6 (SP Application).

⁷³ Ex. 7 at 6 (SP Application).

⁷⁴ Ex. 7 at 6 (SP Application).

⁷⁵ Ex. 7 at 16 (SP Application).

⁷⁶ Ex. 7 at 18 (SP Application).

⁷⁷ Ex. 7 at 19 (SP Application).

approximately 18” in diameter, up to 30 feet in height, and spaced approximately 200 feet apart. The electrical cables will then be strung on poles to the Project substation.⁷⁸

54. Electrical cables may also be installed in a hybrid, above-ground and below-ground configuration. In a hybrid configuration, the DC collection cables would be strung under rows of panels on steel arms and a steel cable attached to the steel piers. At the end of each row, hanging routed brackets would connect several racks/rows of cables to a common collection point near their assigned inverter/transformer skid where the cables will be routed below-ground at a minimum depth of at least four feet below grade to the inverter/transformer skid. The electrical cables will then be routed below-ground at a minimum depth of at least four feet below grade to the Project substation. Cables connecting each unit of solar arrays will be directionally bored under county roads.⁷⁹

55. The Project will use a Supervisory Control and Data Acquisition (“SCADA”) system to control and monitor the Project. The SCADA communications systems provides status views of electrical and mechanical data, operation and fault status, meteorological data, and grid station data.⁸⁰

56. The Project will meet all Rock County setbacks for large solar energy systems.⁸¹

57. Xcel Energy has entered into a power purchase agreement with Elk Creek for the power generated by the Project and intends to use the power generated by the Project to satisfy the growing demand for Xcel Energy’s customers under its Renewable*Connect Program.⁸²

58. The total Project-installed capital costs are estimated to be approximately \$118 million.⁸³

V. SITE LOCATION AND CHARACTERISTICS

59. The Project is located in Vienna Township, in Rock County in southwest Minnesota.⁸⁴

60. Elk Creek has obtained leases and purchase options for 976 acres of privately-owned land, which is defined in the SP Application as the “Land Control Area”.⁸⁵ Based on preliminary design, the Project facilities will cover approximately 681 acres, which is defined in the SP Application as the “Preliminary Development Area”⁸⁶. A 295-acre portion of the land currently under lease that will not be utilized by the Project will be excluded from the area leased

⁷⁸ Ex. 7 at 20 (SP Application).

⁷⁹ Ex. 7 at 20 (SP Application).

⁸⁰ Ex. 7 at 26 (SP Application).

⁸¹ Ex. 7 at 25 (SP Application).

⁸² Ex. 7 at 1 (SP Application).

⁸³ Ex. 7 at 13 (SP Application).

⁸⁴ Ex. 7 at 1 (SP Application).

⁸⁵ Ex. 7 at 40 (SP Application).

⁸⁶ Ex. 7 at 40 (SP Application).

by Elk Creek during the operation of the Project. The underlying landowner can then continue to farm the area released from the lease for the life of the Project.⁸⁷

61. The Project is located in a rural, agricultural area. The population density in Vienna Township is 4.3 people per square mile.⁸⁸

VI. SOLAR RESOURCE CONSIDERATIONS

62. Based on the National Renewable Energy Laboratory's Direct Normal Solar Resource of Minnesota, predicted annual average daily total solar resource near the Project are between 4.5 and 4.7 kilowatt hours per square meter per day.⁸⁹

63. Elk Creek estimates the Project will have a net capacity factor of between 22.2 to 24 percent and an average annual output of between approximately 156,000 and 168,000 MW hours.⁹⁰

VII. PROJECT SCHEDULE

64. Commercial operation of the Project is anticipated by fourth quarter 2021. The commercial operation date is dependent on the completion of the interconnection process, permitting, and other development activities.⁹¹

VIII. SUMMARY OF PUBLIC COMMENTS

65. Approximately 20 people attended the Public Information and Environmental Scoping Meeting held on January 13, 2020. Three attendees provided verbal comments/questions during the meeting, and three members of the public provided written comments during the public comment period. The verbal comments and questions included a broad range of topics, including: the output of the Project, solar resource in Minnesota, reduction in carbon via solar, reliability and efficiency, decommissioning, vegetation management, wildlife habitat, loss of farmland, benefits of solar, insurance requirements, potential for contamination from panels, and Project financing. The written public comments also included a broad range of topics, including: the benefits of solar, reduction in the consumption of carbon and the displacement of agriculture. No alternatives to Elk Creek's proposed site were presented at the public meeting or during the comment period.⁹²

66. In addition, comment letters were received from the Rock County Land Management Department and Minnesota Department of Natural Resources ("MDNR"). Rock County Land Management Department provided comments regarding local permits and submittals it believes should be secured for the Project, including: 911 address registrations; driveway permits; conditional use permits for the temporary laydown yards; and land use permits for permanent structures such as the operations and maintenance building; it also requested that

⁸⁷ Ex. 7 at 6 (SP Application).

⁸⁸ Ex. 7 at 38 (SP Application).

⁸⁹ Ex. 7 at 9 (SP Application).

⁹⁰ Ex. 16 (Morris Testimony).

⁹¹ Ex. 7 at 4 (SP Application).

⁹² Exs. 102 and 103 (Written and Oral Comments on Env. Scope).

the County and Elk Creek enter into one or more agreements to address road, drainage and development issues.⁹³

67. MDNR recommended establishing a cover crop several months ahead of construction to stabilize soils prior to construction, thereby minimizing erosion issues. It also recommended that construction be planned for drier, late summer conditions to reduce the likelihood of construction-related challenges in low-lying or wet soil areas. The MDNR noted that two state-listed fish species are found in Elk Creek and therefore recommended that impacts to Elk Creek, which is outside of the Project area, be avoided. The MDNR requested that the environmental assessment clarify whether the Project fence is intended to exclude wildlife, particularly deer. Finally, the MDNR recommends the environmental assessment consider the importance of establishing pollinator habitat and the Project's plans for successfully incorporating pollinator habitat into Project design.⁹⁴

68. Approximately four members of the public spoke at the public hearing.⁹⁵ Two commenters expressed support for the Project because it would result in construction jobs in the region. Two commenters expressed concern for the Project because of the loss of agricultural land for food production. Further, commenters also had questions and comments regarding recycling of facility components, tax incentives for the Project, facility decommissioning, and vegetation management.⁹⁶

69. In addition, several additional written comments were received on the Project before the close of the comment period on August 10, 2020.⁹⁷ Two commenters expressed support for the Project as the current owners of land on which the Project will be constructed. One commenter expressed concern about the Project's impact on prime farmland. Laborers' International Union North America, Minnesota and North Dakota expressed support for the Project and the benefits to the local economy, including construction jobs and local spending.⁹⁸ The MDNR suggested revised site permit language for sample site permit condition 4.3.8 related to beneficial habitat.⁹⁹ The Minnesota Department of Agriculture expressed support for the development of an alternative vegetation management plan for the site that includes perennial agricultural crops.¹⁰⁰

IX. SITE PERMIT CRITERIA

70. Large electric power generating plants ("LEPGP") are governed by Minn. Stat. § 216E and Minn. R. part 7850. Minn. Stat. § 216E.01, subd. 5, defines a "large electric power generating plant" as "electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more."

⁹³ Ex. 103 (Written Public Comments--EA Scope).

⁹⁴ Ex. 103 (Written Public Comments--EA Scope).

⁹⁵ See generally, Pub. Hr'g Tr., GS Docket, eDockets Document No. [20208-165804-02](#).

⁹⁶ See generally, Pub. Hr'g Tr., GS Docket, eDockets Document No. [20208-165804-02](#).

⁹⁷ E.g., *Public Comment – Westgor* (August 10, 2020), *Chambers Family Farms* (August 10, 2020), *Schneiderman* (August 10, 2020) GS Docket, eDockets Document No. [20208-165787-01](#).

⁹⁸ Public Comment (July 24, 2020) GS Docket, eDockets Document No. [20207-165258-02](#).

⁹⁹ Public Comment (July 21, 2020) GS Docket, eDockets Document No. [20207-165148-01](#).

¹⁰⁰ Public Comment (August 10, 2020), GS Docket, eDockets Document No. [20208-165739-01](#).

71. On May 14, 2019, Elk Creek submitted information to EERA requesting a size determination for the Project. On May 20, 2019, EERA informed Elk Creek that, based on the information provided, the Project is subject to the Commission's siting authority under Minn. Stat. § 216E. Therefore, a site permit is required prior to construction of the Project.

72. A LEPGP powered by solar energy is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04. Elk Creek filed the SP Application under the process established by the Commission in Minn. R. parts 7850.2800-7850.3900.

73. Under Minn. Stat. § 216E.04, for a LEPGP permitted under the alternative permitting process, EERA prepares for the Commission an environmental assessment containing information on the human and environmental impacts of the proposed project and addresses mitigating measures. The environmental assessment is the only state environmental review document required to be prepared on the project.

74. EERA staff, is responsible for evaluating the site permit application and administering the environmental review process.

X. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT

A. Human Settlement

75. The Project is located in rural southwestern Minnesota. The population density in Vienna Township is 4.3 people per square mile.¹⁰¹

76. The construction of the Project will not displace residents or change the demographics of the Land Control Area.¹⁰²

1. Zoning and Land Use

77. The Land Control Area is zoned as general agriculture. Rock County does have a Renewable Energy Ordinance that governs the development of large solar energy systems, that are not otherwise under the jurisdiction of the Commission, within the agricultural district through a conditional use permit. Elk Creek has applied the county standards for solar facilities where practicable.¹⁰³

78. There are no conservation easements held by public agencies or private organizations within the Land Control Area.¹⁰⁴

79. Development of the Project would result in the change of land use from a generally agricultural use to an industrial use for at least the life of the Project. After the useful life of the Project, the Preliminary Development Area could be restored to agricultural use or

¹⁰¹ Ex. 7 at 38 (SP Application).

¹⁰² Ex. 7 at 40 (SP Application).

¹⁰³ Ex. 106 at 89 (EA).

¹⁰⁴ Ex. 7 at 75 (SP Application).

other planned use. This conversion of agricultural land into a solar farm will have a minimal impact on the rural character of the surrounding area or Rock County.¹⁰⁵

80. Of the 309,120 acres in Rock County, approximately 90 percent (approximately 280,537 acres) are classified as agricultural land; impacts to the 670.0 acres of agricultural land within the Project's Preliminary Development Area would reduce the amount of agricultural land in the county by less than one percent.¹⁰⁶

81. No other development plans have come to light for the immediate area for which the Project would serve as an impediment.¹⁰⁷

2. Property Values

82. Because property values are influenced by a complex interaction between factors specific to each individual piece of real estate as well as local and national market conditions, the effect of one particular project on the value of one particular property is difficult to determine.¹⁰⁸

83. The installation of the Project would create a limited visual impact at ground level or from a neighboring property. The Project is not expected to have emissions or noise impacts to adjacent land uses during operation of the facilities.¹⁰⁹

84. Widespread negative impacts to property value as a result of the Project are not anticipated. In unique situations, it is possible that specific, individual property values may be negatively impacted. Such impacts can be mitigated by proper siting, restoration and vegetation management and screening the site.¹¹⁰

3. Aesthetic Impacts

85. The existing landscape in the Land Control Area is generally flat and agricultural.¹¹¹

86. Installation of the proposed Elk Creek Solar farm will result in visible landscape changes. Due to their low profile, the arrays will not be visible from a great distance, however, the above-ground layout option will have a larger impact. Aesthetic impacts will be experienced primarily by nearby residents and people using the roads adjacent to the Land Control Area. There are no residences or businesses within the Land Control Area, but there are four residences and several agricultural buildings on parcel adjacent to the Land Control Area. Three of the four

¹⁰⁵ Ex. 106 at 89 (EA).

¹⁰⁶ Ex. 106 at 89 (EA).

¹⁰⁷ Ex. 106 at 89 (EA).

¹⁰⁸ Ex. 106 at 113 (EA).

¹⁰⁹ Ex. 106 at 114 (EA).

¹¹⁰ Ex. 106 at 115 (EA).

¹¹¹ Ex. 106 at 99 (EA).

residences have screening between the residence and the Project.¹¹² Elk Creek has proposed screening for the residence without existing screening.¹¹³

87. The use of the below-ground or the hybrid electrical collection system would minimize the visual impact by reducing the number of aerial structures from a distance.¹¹⁴

88. In addition, Elk Creek will install lighting that is down lit to minimize impacts to adjacent uses.¹¹⁵

89. Section 4.3.7 of the Sample Site Permit requires the Applicant to consider visual impacts from landowners and land management agencies.

4. Public Service and Infrastructure

90. The Project is located in a rural area in southwestern Minnesota. There is an established transportation and utility network that provides access and necessary services to the Project.¹¹⁶

91. During construction, temporary impacts are anticipated on some public roads adjacent to the Land Control Area. Construction activities will increase the amount of traffic using local roadways, but such use is not anticipated to result in adverse traffic impacts.¹¹⁷ Operation of the Project after construction will not noticeably increase traffic near the Land Control Area.¹¹⁸

92. Elk Creek is currently negotiating a development and road use agreement with Rock County to address Project impacts to, permits for access and restoration of township and county roads. Vienna Township has signed a resolution delegating its authority to Rock County for Project purposes, including the development and road use agreement.¹¹⁹

93. Elk Creek will contact Gopher State One prior to construction to locate and avoid underground facilities. To the extent Project facilities cross or otherwise impact existing telephone lines or equipment, Elk Creek will enter into agreements with service providers to avoid interference with their facilities.¹²⁰

94. Elk Creek filed Federal Aviation Administration (“FAA”) 7460-1 Notice of Proposed Construction forms for the perimeter of the Land Control Area. On July 9, 2019, the FAA provided Determinations of No Hazard to air navigation for each of the four points around

¹¹² Ex. 106 at 99 – 100 (EA).

¹¹³ Ex. 17 (Burmeister Testimony).

¹¹⁴ Ex. 106 at 106 (EA).

¹¹⁵ Ex. 106 at 106 (EA).

¹¹⁶ Ex. 106 at 28 - 29 (EA).

¹¹⁷ Ex. 106 at 123 (EA).

¹¹⁸ Ex. 7 at 55 (SP Application).

¹¹⁹ Ex. 17 (Burmeister Testimony).

¹²⁰ Ex. 7 at 54 (SP Application).

the Land Control Area. As such, Project facilities will not exceed obstruction standards and would not be a hazard to air navigation.¹²¹

95. Section 4.3.4 of the Sample Site Permit requires Elk Creek to minimize disruption to public services and public utilities and to restore service promptly if disrupted by Elk Creek.

5. Recreational Resources

96. Recreational opportunities in the vicinity of the Project include hiking, biking, fishing, camping, cross country skiing, snowmobiling, hunting, and wildlife viewing.¹²²

97. There are no Wildlife Management Areas (“WMA”), Scientific and Natural Areas (“SNA”), and migratory waterfowl feeding or resting areas, or DNR mapped snowmobile trails within one miles of the Land Control Area.¹²³

98. No impacts to tourism or recreational opportunities are anticipated from the Project. will be visual in nature affecting individuals using public land near the Land Control Area for recreation.¹²⁴

B. Public Health and Safety

99. The term EMF refers to electric and magnetic fields that are present around any electrical device. Electric fields arise from the voltage or electrical charges and magnetic fields arise from the flow of electricity or current that travels along transmission lines, power collection (feeder) lines, substation transformers, house wiring, and electrical appliances.¹²⁵

100. Based on the most current research on electromagnetic fields, and the distance between the Project and houses, the Project will have no impact to public health and safety due to EMF or magnetic fields.¹²⁶

101. Stray voltage (also referred to as neutral to earth voltage) is an extraneous voltage that appears on metal surfaces in buildings, barns and other structures, which are grounded to earth. Stray voltage is typically experienced by livestock which simultaneously come into contact with two metal objects (feeders, waterers, stalls). Problems are usually related to the distribution and services lines directly serving the farm or the wiring on a farm affecting confined farm animals. The potential for the Project to create stray voltage is negligible and if a fault would occur during operation it would be identified quickly by the facility’s monitoring systems and corrected.¹²⁷

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

¹²¹ Ex. 7 at 55 and 81 (SP Application); Ex. 106 at 123 (EA).

¹²² Ex. 106 at 131 (EA).

¹²³ Ex. 106 at 131 (EA).

¹²⁴ Ex. 106 at 131 (EA).

¹²⁵ Ex. 106 at 116 (EA).

¹²⁶ Ex. 106 at 116 and 119 (EA).

¹²⁷ Ex. 106 at 120 (EA).

103. Section 4.3.19 of the Sample Site Permit contains conditions to address public safety. In accordance with those conditions, Elk Creek will provide educational materials to landowners adjacent to the Land Control Area and, upon request, to interested persons about the Project and any restrictions or dangers associated with the Project. Elk Creek will also provide any necessary safety measures such as warning signs and gates for traffic control or to restrict public access. In addition, Elk Creek will submit the location of all underground facilities to Gopher State One Call after construction is completed.¹²⁸

C. Land-based Economies

1. Local Economy

104. The Project will result in both short- and long-term benefits to the local economy. Local contractors and suppliers will be used for portions of the construction, and total wages and salaries paid to contractors and workers in Rock County.¹²⁹ Several commenters at the public hearing noted that the Project is expected to result in well-paying construction jobs in the area.¹³⁰

105. Landowners that own portions of the Land Control Area will receive lease payment annually for the life of the Project or will receive a sales price for the sale of their land to Elk Creek.¹³¹

106. In addition to the creation of jobs and personal income, the Project will pay an Energy Production Tax to the local units of government of approximately \$180,000 annually or approximately 4.5 Million over 25 years.¹³²

2. Agriculture

107. The majority of the Land Control Area is in agricultural use, comprising 938.4 acres (96.1 percent). Developed land uses comprise 33.0 acres (3.4 percent) of the Land Control Area. Forested or shrubland comprises a combined 4.5 acres (0.5 percent) of the Land Control Area.¹³³

108. Up to approximately 670.1 acres of agricultural land will be taken out of agricultural production where the fenced portion of the Project is located.¹³⁴ A 295-acre portion of the land currently under lease that will not be utilized by the Project will be excluded from the area leased by Elk Creek during the operation of the Project. The underlying landowner can then continue to farm the area released from the lease for the life of the Project.¹³⁵

¹²⁸ Ex. 106 at 200 (EA).

¹²⁹ Ex. 7 at 49 (SP Application).

¹³⁰ *E.g., See generally*, Pub. Hr'g Tr., GS Docket, eDockets Document No. [20208-165804-02](#); *see also* Public Comment (July 24, 2020) GS Docket, eDockets Document No. [20207-165258-02](#).

¹³¹ Ex. 7 at 49 (SP Application); Ex. 106 at 98 (EA).

¹³² Ex. 106 at 94-95 (EA).

¹³³ Ex. 7 at 51 (SP Application).

¹³⁴ Ex. 7 at 52 (SP Application).

¹³⁵ Ex. 7 at 6 (SP Application).

109. In lieu of agricultural production, landowners will receive lease payments or the purchase price for the sale of their property to Elk Creek.¹³⁶

110. The presence of the Project will not significantly impact the agricultural land use or general character of the area. Impacts to the 670.0 acres of agricultural land within the Project's Preliminary Development Area would reduce the amount of agricultural land in the County by less than one percent.¹³⁷

3. Prime Farmland

111. The United States Department of Agriculture defines prime farmland as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water).¹³⁸

112. Minn. R. part 7850.4400, subp. 4 prohibits use of more than 0.5 acre of prime farmland per MW of net generating capacity for sites where large generating plants are located, unless no feasible and prudent alternative exists.¹³⁹

113. There will be direct impacts to agriculture from the Project through the use of 554 acres of prime farmland and 126 acres of prime farmland if drained taken out of production for the life of the Project. Minn. R. part 7850.4400, subp. 4 would allow 40 acres of prime farmland for the Project unless there is no feasible and prudent alternative.¹⁴⁰

114. After Elk Creek submitted the SP Application, EERA and the Department of Agriculture developed a guidance document to assist developers when evaluating potential solar sites relative to the feasible and prudent language in the rule.¹⁴¹ The guidance document is meant to assist developers in defining feasible and prudent in relation to siting alternatives in light of the dual mandates in Minnesota to advance solar energy production and protect prime farmland and due to the inherent difficulties in avoiding prime farmland. The guidance advises applicants to explain how they chose the region in which their site is located, how they selected their specific site and whether any alternatives exist near the chosen site that avoid prime farmland.¹⁴²

115. Elk Creek explored Rock County for a solar project based on the high solar resource in the southwestern portion of Minnesota together with a supportive community and the positive experiences Elk Creek's owner, Geronimo, had while developing the Prairie Rose Wind

¹³⁶ Ex. 7 at 49 (SP Application); Ex. 106 at 98 (EA).

¹³⁷ Ex. 106 at 89 (EA).

¹³⁸ Ex. 106 at 63 (EA).

¹³⁹ Ex. 106 at 139 (EA).

¹⁴⁰ Ex. 106 at 139 (EA).

¹⁴¹ Ex. 106 at 68 (EA); *See also* Solar Energy Production and Prime Farmland (May 19, 2020) Available online at <https://mn.gov/eera/web/project-file/11367/>.

¹⁴² Ex. 106 at 68 (EA)

Farm in Rock County.¹⁴³ The annual average daily total solar resource near the Project is among the highest in the state of Minnesota.¹⁴⁴

116. Elk Creek identified Magnolia substation as a potential interconnect location in Rock County because of its available capacity to interconnect the Project to the transmission system, a general lack of environmental constraints and the presence of adequate roads for access to a site and relatively flat unobstructed terrain in the vicinity of the substation to maximize the utilization of the solar resource.¹⁴⁵

117. Elk Creek then met with landowners within approximately five miles of the Magnolia substation to gauge whether there was enough interest from relatively contiguous landowners in voluntarily participating in the Project. This distance was selected to account for transmission interconnect efficiency, which is essential to successful Project development. Siting the Project in close proximity to an existing substation allows Elk Creek to make efficient use of existing equipment, minimize line loss and avoid the need for large transmission construction. Elk Creek ultimately signed leases and/or purchase options with landowners that owned relatively flat, unobstructed, generally contiguous parcels of land, with limited environmental constraints directly adjacent to the Magnolia substation that were willing to host Project facilities.¹⁴⁶

118. Elk Creek examined the soils located even farther from the substations than the initial five-mile selection criteria described above and determined that a larger radius would not have resulted in decreased prevalence of prime farmland, while the increased distance would increase the necessary interconnection infrastructure. Prime farmland, and its sub-categories, are mapped throughout Rock and Nobles County except along larger waterway drainages comprised of floodplains and wetlands and a bedrock outcropping associated with Blue Mounds State Park in Rock County, which is a prohibited site.¹⁴⁷ In Rock County, 91 percent of the soils are classified as prime farmland.¹⁴⁸ Accordingly, there is no alternative site or area in the either county, let alone within an area within five miles of the Magnolia substation, that is conducive to solar development of approximately 700 acres that is not defined as prime farmland.¹⁴⁹

119. No alternatives to Elk Creek's proposed site were presented at the public meeting or during the public comment period.¹⁵⁰

120. Therefore, there is no feasible and prudent alternative available to Elk Creek, including near the Magnolia substation or otherwise in Rock or Nobles County to construct the Project and not impact prime farmland. A finding that there is no feasible and prudent alternative to avoidance of prime farmland for the Project is consistent with past Commission decisions for

¹⁴³ Ex. 7 at 8, 9 (SP Application).

¹⁴⁴ Ex. 7 at 9 (SP Application) ; Ex. 106 at 70 (EA).

¹⁴⁵ Ex. 7 at 8 (SP Application).

¹⁴⁶ Ex. 7 at 8 (SP Application).

¹⁴⁷ Ex. 7 at 10 (SP Application)

¹⁴⁸ Ex. 106 at 70 (EA).

¹⁴⁹ Ex. 7 at 10 (SP Application); Ex. 106 at 69 and 70 (EA).

¹⁵⁰ Exs. 102 and 103 (Written and Oral Comments on Env. Scope); Ex. 106 at 70 (EA).

large solar generating systems sited in prime farmland due to the fact that areas surrounding the Project substation also contain similar amounts of prime farmland as the proposed site.¹⁵¹

121. Elk Creek has developed an Agricultural Impact Mitigation Plan (“AIMP”) and a Vegetation Management Plan (“VMP”) to identify measures that Elk Creek and its contractors can take to avoid, repair and/or mitigate for potential negative agricultural impacts from the construction, operation, and eventual decommissioning of the Project; these plans outline measures designed to ensure the land may be returned to future agricultural usages following the closure and decommissioning of the Project.¹⁵²

122. Elk Creek developed its AIMP in coordination with the Minnesota Department of Agriculture.¹⁵³

123. Sections 4.3.1, 4.3.2, 4.3.3, 4.3.9, 4.3.10, 4.3.11, and 4.3.15 of the Sample Site Permit are all conditions that address agricultural related issues associated with the Project.

D. Archaeological and Historic Resources

124. Elk Creek’s consultant, Area M Consulting (“Area M”) conducted a Phase I culture resources investigation of the Land Control Area. No previously recorded archaeological or historic sites, historic architectural resources, or previous cultural resources inventories were noted within one-half mile of the Land Control Area. Area M conducted a Phase I field inventory of the Land Control Area in April and May 2019 and did not identify any cultural resources during the survey.¹⁵⁴

125. Area M submitted the Phase I inventory report to the Minnesota State Historic Preservation Office (“SHPO”). In a letter dated July 3, 2019, SHPO concurred with Area M’s recommendation that the Project would not affect historic properties listed in or eligible for listing in the National Register of Historic Places (“NRHP”).¹⁵⁵ The construction and operation of the Project will not impact historic properties listed in, eligible for, or potentially eligible for listing in the NRHP.¹⁵⁶

126. Section 4.3.13 of the Sample Site Permit requires Elk Creek to make every effort to avoid impacts to identified archaeological and historic resources. If a resource is encountered, Elk Creek shall contact and consult with SHPO and Office of the State Archaeologist (“OSA”). Where feasible, avoidance of the resource is required. Where not feasible, mitigation must include an effort to minimize Project impacts consistent with SHPO and OSA requirements. In addition, before construction, workers shall be trained about the need to avoid cultural properties,

¹⁵¹ Ex. 7 at 10 (SP Application); *See also* In the Matter of the Site Permit Application for the 100 MW Aurora Distributed Solar Energy Project at Multiple Facilities in Minnesota, PUC Docket No. E-6928/GS-14-515, Order Issuing Site Permit, As Amended (June 30, 2015); In the Matter of the Application of Marshall Solar, LLC for a Site Permit for the Marshall Solar Energy Project and Associated Facilities in Lyon County, PUC Docket No. IP-6964/GS-14-1052, Order Issuing Site Permit (May 5, 2016).

¹⁵² Ex. 7 at Appendix C (SP Application); Ex. 106 at 70 (EA).

¹⁵³ Ex. 7 at 83 (SP Application).

¹⁵⁴ Ex. 7 at 57; Appendix D (SP Application).

¹⁵⁵ Ex. 7 at 35-36, 38 (SP Application).

¹⁵⁶ Ex. 106 at 134 (EA).

how to identify cultural properties, and procedures to follow if undocumented cultural properties are found. If human remains are found during construction, Elk Creek shall immediately halt construction at such location and promptly notify local law enforcement and OSA. Construction at such location shall not proceed until authorized by local law enforcement or OSA.

E. Natural Environmental

1. Wildlife

127. The resident wildlife species in the Land Control Area are representative of game and non-game fauna accustomed to agricultural habitats.¹⁵⁷

128. Given the agricultural nature of the Land Control Area, impacts to the current wildlife inhabiting the area are expected to be temporary and minimal.¹⁵⁸

129. Under Section 8.12 of the Sample Site Permit, Elk Creek will be required to report any wildlife injuries and fatalities to the Commission on a quarterly basis.

2. Vegetation

130. The majority of the land area within the Land Control Area is cultivated agricultural land.¹⁵⁹

131. No native prairie was identified in the Land Control Area during surveys conducted by Elk Creek.¹⁶⁰

132. The primary impact from construction of the Project would be the cutting, clearing, and removal of existing vegetation within the Preliminary Development Area. The degree of impact would depend on the type and amount of vegetation affected, the rate at which the vegetation would regenerate after construction (restoration), and whether periodic vegetation maintenance would be conducted during operation. Secondary effects from disturbances to vegetation could include increased soil erosion, increased potential for the introduction and establishment of invasive and noxious weed species, and a temporary local reduction in available wildlife habitat.¹⁶¹

133. Elk Creek will avoid disturbance of the only delineated wetland located in the Land Control Area during Project construction and operation.¹⁶²

134. The Project has been designed to avoid all tree clearing.¹⁶³

¹⁵⁷ Ex. 106 at 72 (EA).

¹⁵⁸ Ex. 106 at 74 (EA).

¹⁵⁹ Ex. 7 at 51 (SP Application).

¹⁶⁰ Ex. 15 (Schmit Testimony).

¹⁶¹ Ex. 106 at 86 (EA).

¹⁶² Ex. 7 at 67; Appendix B (SP Application).

¹⁶³ Ex. 7 at 68 (SP Application).

135. Section 4.3.6 of the Sample Site Permit provides that Project facilities will not be placed in native prairie unless addressed in a Prairie Protection and Management Plan and shall not be located in areas enrolled in the Native Prairie Bank Program. This section further requires Elk Creek to prepare a Prairie Protection and Management Plan in consultation with MDNR if native prairie is identified within the site boundaries.

136. Section 4.3.8 of the Sample Site Permit requires implementation of site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators.

137. Elk Creek has developed a VMP to identify measures that Elk Creek and its contractors will utilize to guide site preparation, installation of prescribed seed mixes, management of invasive species and noxious weeds, and control of erosion/sedimentation. The VMP includes seeding and management measures needed to establish long-term perennial vegetation on the site during operation of the Project.

3. Soils, Geologic, and Groundwater Resources

138. Construction of the facilities will disturb up to 680 acres. As with any ground disturbance, construction of the Project has the potential for soil compaction, erosion, and sedimentation. Construction may require some amount of grading to provide a level surface for the solar arrays. Additional soil impacts will result from the installation of direct-embedded piers that support the solar arrays.¹⁶⁴

139. Based on the electrical configuration, impacts to soils will differ. The above-ground collection configuration would have least amount of soil impacts because only a small portion of the DC and AC collection would be trenched into the ground. The hybrid collection system will have the more soil impacts than the above-ground system, but less than the below-ground system.¹⁶⁵

140. Elk Creek will obtain a National Pollutant Discharge Elimination System (“NPDES”) permit to discharge stormwater from construction facilities from MPCA. Best management practices (“BMPs”) will be used during construction and operation to protect topsoil and adjacent resources and to minimize soil erosion. In addition, 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.¹⁶⁶

141. There is one domestic well within the Land Control Area.¹⁶⁷ If the well has not been capped, Elk Creek will cap the well in accordance with state regulations during construction.¹⁶⁸

¹⁶⁴ Ex. 7 at 64-66 (SP Application).

¹⁶⁵ Ex. 7 at 64 (SP Application).

¹⁶⁶ Ex. 7 at 67 (SP Application).

¹⁶⁷ Ex. 7 at 60 (SP Application).

¹⁶⁸ Ex. 7 at 61 (SP Application).

142. Impacts to geologic and groundwater resources are not anticipated. Elk Creek has developed an AIMP to identify measures that Elk Creek and its contractors can take to avoid, repair and/or mitigate for potential negative soil impacts from the construction, operation, and eventual decommissioning of the Project.¹⁶⁹

4. Surface Water and Wetlands

143. Elk Creek identified surface water and floodplain resources for the Project area by reviewing U.S. Geological Survey (“USGS”) topographic maps, National Wetlands Inventory (“NWI”) maps and Minnesota Public Waters Inventory (“PWI”) maps together with a field wetland delineation.¹⁷⁰ One wetland was delineated in the Land Control Area.¹⁷¹

144. The Project will not require the appropriation of surface water or permanent dewatering. Temporary dewatering may be required during construction for electrical trenches. Project facilities have the potential to impact surface water runoff and cause sedimentation; however, these impacts are expected to be minimal. The Project will not impact known floodplain areas.¹⁷²

145. Elk Creek will avoid disturbance of the only delineated wetland located in the Land Control Area during Project construction and operation.¹⁷³

146. Elk Creek has preliminarily designed 13 stormwater drainage basins within existing low-lying areas to help control runoff during rain events.¹⁷⁴

147. Section 4.3.5 of the Sample Site Permit limits impacts to public waters resources and requires construction in wetland areas during frozen ground conditions to minimize impacts, to the extent feasible. If construction in the winter is not possible, wooden or composite mats shall be used to protect wetland vegetation.

5. Air and Water Emissions

148. Temporary short-term air quality impacts would occur during the construction phase of the Project. Once operational, the Project would not generate criteria pollutants or carbon dioxide.¹⁷⁵

149. Short-term air emissions during the construction phase of the Project are anticipated as a result of vehicle exhaust from the construction equipment and from vehicles traveling to and from facility locations as well as fugitive dust emissions due to travel on

¹⁶⁹ Ex. 7 at Appendix C (SP Application); Ex. 106 at 70 (EA).

¹⁷⁰ Ex. 7 at 67 (SP Application).

¹⁷¹ Ex. 6 at 57 (SP Application).

¹⁷² Ex. 7 at 5, 61 (SP Application).

¹⁷³ Ex. 7 at 67; Appendix B (SP Application).

¹⁷⁴ Ex. 7 at 67 (SP Application).

¹⁷⁵ Ex. 106 at 40 (EA).

unpaved roads and limited amounts of excavation that may be needed for foundations (either for inverter boxes, or in some limited cases, the array piers).¹⁷⁶

150. When necessary, dust from construction traffic will be controlled using standard construction practices such as watering of exposed surfaces, covering of disturbed areas, and reduced speed limits at each facility. Emission from construction vehicles will be minimized by keeping construction equipment in a good working order.¹⁷⁷

6. Solid and Hazardous Wastes

151. Potential hazardous materials within the Land Control Area are typical of agricultural uses and may include contamination from petroleum products (diesel fuel, gasoline, natural gas, heating oil, lubricants, and maintenance chemicals), pesticides and herbicides. The proposed Project would generate solid waste during construction including construction debris such as scrap wood, plastics, cardboard and scrap metals. Petroleum products would also be present on site, such as oil and fuel. Operation of the Project is not expected to generate significant quantities of solid and hazardous waste materials. Small quantities of hydraulic oil, lube oil, grease, and cleaning fluid will be maintained and stored at the operations and maintenance building, and as these fluids are replaced the waste products will be handled and disposed of through an approved disposal firm as required by regulations.¹⁷⁸

152. If any wastes, fluids, or pollutants are generated during any phase of the operation of the Project, they will need to be handled, processed, treated, stored, and disposed of through a waste disposal firm.¹⁷⁹

153. PV solar panels are nearly entirely encapsulated in glass and aluminum, which are not hazardous materials. The PV solar panels do, however, contain small amounts of metals that are, by themselves, characterized as hazardous materials by the United States Environmental Protection Agency (“EPA”). Each of the manufacturers being considered by Elk Creek to provide PV solar panels completes EPA testing and has determined that no hazardous materials (including arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver) leached from the tested products resulting in leachate concentrations above the EPA’s regulatory thresholds. Accordingly, the risk to the environment from the contents of the PV solar panels will be minimal. If a PV solar panel is broken at the Project, the broken pieces and the remainder of the panel will be recycled or disposed of and replaced, thereby further reducing the risk for hazardous materials contained in the PV solar panels to leach into the environment.¹⁸⁰

154. Section 4.3.16 of the Sample Site Permit requires that all waste and scrap that is the product of construction shall be removed from the site and all premises on which construction activities were conducted and properly disposed of upon completion of each task. In addition, Section 4.3.17 of the Sample Site Permit requires Elk Creek to take all appropriate precautions against pollution of the environment and makes Elk Creek responsible for

¹⁷⁶ Ex. 106 at 40 (EA).

¹⁷⁷ Ex. 106 at 40 (EA).

¹⁷⁸ Ex. 106 at 56-57 (EA).

¹⁷⁹ Ex. 106 at 58 (EA).

¹⁸⁰ Ex. 16 (Morris Testimony).

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.

F. Rare and Unique Natural Resources

155. Section 7 of the Endangered Species Act (“ESA”) requires that all federal agencies consider and avoid, if possible, adverse impacts to federally-listed threatened or endangered species or their critical habitats, which may result from their direct, regulatory, or funding actions.¹⁸¹

156. Elk Creek contacted USFWS and MDNR and their respective data bases to review the Project for threatened and endangered species and unique habitats.¹⁸²

157. Natural Heritage Information Systems (“NHIS”) data noted that two state-listed fish species (i.e., the Topeka shiner and plains topminnow) are found within one mile of the Land Control Area.¹⁸³ No perennial streams, including the stream named Elk Creek are located within the Land Control Area and therefore direct impacts to these species are not anticipated.¹⁸⁴

158. Four species that are listed as threatened or endangered under the federal ESA may occur and designated critical habitat for the federally listed Topeka shiner is present in Rock County, Minnesota.¹⁸⁵ Impacts to the four ESA listed species and the Topeka shiner critical habitat are not anticipated.¹⁸⁶

159. Sections 4.3.8 and 4.3.6 of the Sample Site Permit identifies conditions to monitor and mitigate the Project’s potential impacts on rare and unique natural resources.

G. Future Development and Expansion

160. Elk Creek initially filed an interconnection application request for 200 MW. Elk Creek plans to reduce the request to 80 MW to reflect the proposed nameplate of the Project. Elk Creek, however, reserved the right to transfer a portion of its transmission service, per Federal Energy Regulatory Commission Order No. 845 and Order No. 845-A, but has no plans to expand the proposed Project at this time.¹⁸⁷

XI. SITE PERMIT CONDITIONS

161. The Sample Site Permit includes a number of proposed permit conditions, many of which have been discussed above. The conditions apply to site preparation, construction, cleanup, restoration, operation, maintenance, abandonment, decommissioning, and other aspects of the Project.

¹⁸¹ Ex. 7 at 68 (SP Application).

¹⁸² Ex. 7 at 76 -78, 80-82 (SP Application).

¹⁸³ Ex. 106 at 10 (EA).

¹⁸⁴ Ex. 106 at 72 (EA).

¹⁸⁵ Ex. 106 at 80 (EA).

¹⁸⁶ Ex. 106 at 80, 82 and 83 (EA).

¹⁸⁷ Ex. 7 at 14 (SP Application).

162. Many of the conditions contained in the Sample Site Permit were established as part of the site permit proceedings of other solar projects permitted by the Commission. Comments received by the Commission have been considered in development of the Sample Site Permit for this Project.

163. On July 17, 2020, Elk Creek requested that Section 4.3.8 of the Sample Site Permit be revised to allow Elk Creek to plant perennial native vegetation in the Preliminary Development Area that can be harvested as a hay crop to meet local agricultural needs as indicated in the Vegetation Management Plan for the Project.¹⁸⁸

164. On July 21, 2020, the MDNR provided suggested changes to Section 4.3.8 of the Sample Site Permit related to Beneficial Habitat. The revisions are as follows:

The Permittee shall implement site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators; ~~and that enhances~~ **improving** soil water retention and reducing storm water runoff and erosion. The Permittee shall develop a vegetation management plan ~~that incorporates, to the extent applicable and appropriate, the technical guidance and best management practices outlined in the DNR's Prairie Establishment and Maintenance Technical Guidance for Solar Projects.~~ **The vegetation management plan shall be filed at least 30 days prior to the preconstruction meeting, using best management practices established by the Minnesota DNR and the Minnesota Board of Soil and Water Resources. The vegetation management plan shall be prepared in coordination with EERA, DNR, and BWSR.**

The vegetation management plan and documentation of the coordination efforts between the permittee and the coordinating agencies shall be filed at least 14 days prior to the preconstruction meeting. To ensure continued management and recognition of beneficial habitat, the Permittee is encouraged to ~~seek certification of the project by following guidance set forth by the Pollinator Plan provided by the Board of Water and Soil Resources.~~ **meet the standards for Minnesota's Habitat Friendly Solar Program by submitting project plans, seed mixes, a completed project planning assessment form, and any other applicable documentation used to meet the standard to the Minnesota Board of Water and Soil Resources.** All documents required by BWSR for meeting standards of the Minnesota's Habitat Friendly Solar Program should also be filed with the Commission.

4.3.8.1 Site Planning and Management

The Vegetation Management Plan must include the following:

- Management objectives addressing short term (year 0-3, seeding and establishment) and long term (year 4 through the life of the permit) objectives.**
- A description of planned restoration and vegetation activities, including how the site will be prepared, timing of activities, and how seeding will occur (broadcast, drilling, etc.), and the types of seed mixes to be used.**
- A description of how the site will be monitored and evaluated to meet management objectives.**

¹⁸⁸ Ex. 15 at 7 (Schmit Testimony).

- A description of management tools used to maintain vegetation (e.g. mowing, spot spraying, hand removal, fire, grazing, etc.), including timing/frequency of maintenance activity.
- Identify responsible party for site restoration, monitoring, and long-term vegetation management of the site (e.g. consultant, contractor, site manager, etc.).
- Identification, monitoring and management of noxious weeds and invasive species (native and non-native) on site.

Site plan showing how the site will be revegetated and corresponding seed mixes. Seed mixes, seeding rates, and cover crops should follow best management practices.

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

Based on the foregoing Findings of Fact and the record in this proceeding, the Commission makes the following:

CONCLUSIONS OF LAW

1. The Commission and the Administrative Law Judge have jurisdiction over the site permit applied for by Elk Creek for the up to 80 MW AC proposed Project pursuant to Minn. Stat. § 216E.03.

2. Elk Creek has substantially complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.

3. The Commission has complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.

4. A public hearing was conducted remotely in accordance with government directives due to the COVID-19 pandemic. 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.

5. The Commission has the authority under Minn. Stat. § 216E.03 to place conditions in a LEPGP site permit.

6. The sample site permit contains a number of important mitigation measures and other reasonable conditions.

7. It is reasonable to amend the Sample Site Permit to include the changes to Sections 4.3.8 of the sample site permit as proposed by Elk Creek and the MDNR.

8. There is no feasible or prudent alternative to the Project under Minn. R. part 7850.4400, subp. 4.

9. The Project, with the permit conditions revised as set forth above, satisfies the site permit criteria for an LEPGP in Minn. Stat. § 216E.03 and meets all other applicable legal requirements.

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

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

RECOMMENDATION

Based upon these Conclusions, the Commission shall issue a site permit to Elk Creek Solar, LLC, to construct and operate the up to 80 MW AC Elk Creek Solar Project in Rock County, and that the permit include the draft permit conditions amended as set forth in paragraph seven of the Conclusions above.