

December 9, 2021

See Attached Service List

Re: *In the Matter of the Applications of Louise Solar Project, LLC, for a Certificate of Need and Site Permit for the 50 MW Louise Solar Project in Mower County, Minnesota*
OAH 82-2500-37579
MPUC IP-7039/CN-20-646 and -647

To All Persons on the Attached Service List:

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

If you have any questions, please contact me at (651) 361-7874, michelle.severson@state.mn.us, or via facsimile at (651) 539-0310.

Sincerely,



MICHELLE SEVERSON
Legal Assistant

Enclosure

cc: Docket Coordinator

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
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CERTIFICATE OF SERVICE

In the Matter of the Applications of Louise Solar Project, LLC, for a Certificate of Need and Site Permit for the 50 MW Louise Solar Project in Mower County, Minnesota	OAH Docket No.: 82-2500-37579 MPUC IP-7039/CN-20-646 and -647
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Michelle Severson certifies that on December 9, 2021, she served the true and correct **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATIONS** by eService, and U.S. Mail, (in the manner indicated below) to the following individuals:

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

**In the Matter of the Application of
Louise Solar Project, LLC, for a
Certificate of Need for the 50 MW
Louise Solar Project in Mower County,
Minnesota**

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STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Louise Solar Project, LLC, for a Certificate of Need for the 50 MW Louise Solar Project in Mower County, Minnesota

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATIONS

OAH Docket No. 82-2500-37579
MPUC Docket No. IP-7039/CN-20-646
MPUC Docket No. IP-7039/GS-20-647

In the Matter of the Application of Louise Solar Project, LLC, for a Site Permit for the 50 MW Louise Solar Project in Mower County, Minnesota

This matter was assigned to Administrative Law Judge (ALJ) Barbara J. Case to conduct a public hearing on the Certificate of Need (MPUC Docket No. CN-20-646) and Site Permit (MPUC Docket No. GS-20-647) Applications of Louise Solar Project, LLC (Louise Solar or Applicant) for an up to 50 megawatt (MW) solar energy generating system and associated facilities in Mower County, Minnesota (the Project). The Minnesota Public Utilities Commission (MPUC or Commission) also requested that the ALJ prepare findings of fact, conclusions of law and a recommendation for a preferred site and permit conditions.

Joint public hearings on the Site Permit and Certificate of Need Applications for the Project were held on October 12, 2021 (in person) and October 13, 2021 (remote access - telephone and internet). The factual record remained open until October 27, 2021, for the receipt of written public comments.

Christina Brusven, Fredrikson & Byron, P.A., and Scott Wentzell, Project Development Manager of EDF Renewables, Inc. (EDFR), appeared on behalf of Louise Solar.

Cezar Panait, Minnesota Public Utilities Commission Staff, appeared on behalf of the Commission.

Jamie MacAlister, Environmental Review Manager, appeared on behalf of the Department of Commerce, Energy Environmental Review and Analysis (EERA).

STATEMENT OF ISSUES

1. Has Louise Solar satisfied the criteria established in Minn. Stat. ch. 216B (2020) and Minn. R. ch. 7849 (2021) for a Certificate of Need for the proposed Project?
2. Has Louise Solar satisfied the criteria set forth in Minn. Stat. ch. 216E (2020) and Minn. R. ch. 7850 (2021) for a Site Permit for the proposed Project?

SUMMARY OF RECOMMENDATIONS

The ALJ concludes that Louise Solar has satisfied the applicable legal requirements and, accordingly, the Commission should **GRANT** a Certificate of Need and a Site Permit for the Project, subject to the conditions discussed below.

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

FINDINGS OF FACT

I. APPLICANT

1. Louise Solar Project, LLC, is a wholly owned subsidiary of EDF Renewables, Inc. (EDFR). EDFR is a renewable energy development company that will construct, own and operate the proposed Project headquarters in San Diego, California.¹

2. EDFR has developed and permitted over 1,200 megawatts (MWs) of large wind energy conversion systems in Minnesota, including the Lakefield, Red Pine, Wapsipinicon, Fenton, and Nobles Wind Projects. EDFR is also currently planning the Andyville Solar Project, an up to 200 MW PV solar-energy generating system, and accompanying 161 kilovolt (kV) transmission line in Mower County, Minnesota through its subsidiary Andyville Solar Project, LLC; Byron Solar Project, an up to 200 MW PV solar-energy generating system and accompanying 345 kV transmission line in Olmsted and Dodge Counties, Minnesota through its subsidiary Byron Solar Project, LLC; and Minneota Solar, an up to 200 MW solar-energy generating system in Lyon County, Minnesota.²

II. CERTIFICATE OF NEED AND SITE PERMIT APPLICATIONS AND RELATED PROCEDURAL BACKGROUND

3. On August 5, 2020, Louise Solar filed a Request for Exemption from Certain Certificate of Need Application Content Requirements with the Commission requesting exemptions from certain Certificate of Need (CN) data requirements.³

4. On August 18, 2020, the Commission issued a notice of Comment Period on Request for Exemptions from Certain CN Filing Requirements, which opened an initial written comment period until August 28, 2020, and a reply comment period until September 4, 2020.⁴

¹ Ex. 101 at 3 (SP Application).

² Ex. 100 at 8-9 (CN Application).

³ Louise Solar Request for Exemption from Certain Certificate of Need Application Content Requirements (Aug. 5, 2020) (eDocket Nos. 20208-165612-01, 20208-165612-02).

⁴ Notice of Comment Period (Aug. 18, 2020) (eDocket No. 20208-165977-01).

5. On August 26, 2020, the Minnesota Department of Commerce, Division of Energy Resources (DER) filed comments recommending that the Commission approve the data exemption requests.⁵

6. On August 27, 2020, Louise Solar filed reply comments concurring with DER's recommendations.⁶

7. On September 4, 2020, the Commission issued a Notice of Commission Meeting scheduling a meeting for September 17, 2020, to consider whether to grant Louise Solar's data exemption requests.⁷

8. On September 21, 2020, the Commission issued an Order approving Louise Solar's data exemption requests.⁸

9. On December 10, 2020, Louise Solar filed a notice of intent to submit a site permit (SP) application under the alternative permitting procedures of Minn. R. 7850.2800-.3900 (2021_).⁹

10. On February 11 and 12, 2021, Louise Solar filed a Site Permit Application (SP Application) with the Commission for the Project.¹⁰

11. Also, on February 11 and 12, 2021, Louise Solar filed its Certificate of Need Application (CN Application).¹¹

12. On February 17, 2021, notice of the Louise Solar filing its CN Application and SP Application was published in the *Austin Daily Herald* and the *Saint Paul Pioneer Press*.¹²

13. On February 22, 2021, the Commission issued a Notice of Comment Period on the completeness of the CN and SP Applications, announcing it would accept written comments through March 8, 2021, and reply comments through March 15, 2021.¹³

14. On March 2, 2021, a member of the public filed a public comment questioning the impact of the project on his crop yields.¹⁴

⁵ DER Comments (Aug. 26, 2020) (eDocket No. 20208-166192-01).

⁶ Reply Comments (Applicant) (Aug. 27, 2020) (eDocket No. 20208-166213-01).

⁷ Notice of Commission Meeting (Sep. 4, 2020) (eDocket No. 20209-166431-01).

⁸ Order (Sep. 21, 2020) (eDocket No. 20209-166711-01).

⁹ Notice of Intent to Submit SPA Under Alternative Process (Dec. 10, 2020) (eDocket No. 202012-168926-01).

¹⁰ Ex. 101 (SP Application).

¹¹ Ex. 100 (CN Application).

¹² Ex. 102 (Compliance Filing - Confirmation of Notice).

¹³ Ex. 300 (Notice of Comment Period on Application Completeness).

¹⁴ Public Comment of Gene Noterman (Mar. 2, 2021) (eDocket Nos. 20213-171494-01, 20213-171494-02).

15. On March 4, 2021, Louise Solar filed confirmation that it had notified those persons on the Commission's general service list, landowners, and local government officials that Louise Solar had filed both the CN and SP Applications.¹⁵

16. On March 8, 2021, Laborers' International Union of North America (LIUNA) Minnesota & North Dakota filed a public comment supportive of the project.¹⁶

17. On March 8, 2021, EERA Staff filed comments and recommendations recommending that the Commission accept the SP Application as substantially complete but require the Applicant to supplement the record with additional information; take no action on an advisory task force; and request a full ALJ report with recommendations. EERA Staff also noted that "it may be unnecessary for staff to present site alternatives to the commission for its input prior to issuance of the scoping decision due to the inherent difficulties in suggesting alternative site locations for a project of this size."¹⁷

18. On March 8, 2021, DER filed comments recommending that the Commission determine that the CN Application was complete pending submittal of additional information.¹⁸

19. On March 15, 2021, Louise Solar filed Reply Comments on the SP Application in response to comments filed during the public comment period.¹⁹

20. Also, on March 15, 2021, Louise Solar filed Reply Comments on the CN Application in response to comments filed during the public comment period.²⁰

21. On March 26, 2021, the Commission issued a Notice of Commission Meeting scheduling a Commission meeting on April 8, 2021, to address whether to accept the CN Application as substantially complete; whether it should authorize review of the CN Application using the Commission's informal process or refer the matter to the Office of Administrative Hearings (OAH) for contested case proceedings; 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.²¹

22. On May 7, 2021, the Commission issued an Order Accepting Applications as Complete, Authorizing Joint Review, and Taking Other Actions, which: accepted the CN Application as substantially complete and authorized review of the application using the informal review process under Minn. R. 7829.1200 (2021); accepted the SP

¹⁵ Ex. 102 (Compliance Filing - Confirmation of Notice).

¹⁶ LIUNA Minnesota & North Dakota Comments (Mar. 8, 2021) (eDocket Nos. 20213-171654-01, 20213-171654-02).

¹⁷ EERA Staff Comments and Recommendations on Application Completeness (Mar. 8, 2021) (eDocket No. 20213-171653-01).

¹⁸ DER Comments (Mar. 8, 2021) (eDocket No. 20213-171634-01).

¹⁹ Ex. 104 (Reply Comments).

²⁰ Ex. 103 (Reply Comments).

²¹ Notice of Commission Meeting (Mar. 26, 2021) (eDocket Nos. 20213-172280-02, 20213-172280-04).

Application as complete and authorized review of the application under the alternative permitting process under Minn. Stat. § 216E.04 and Minn. R. 7850.2800-.3900; approved joint public meetings, joint public hearings, and combined environmental review of the CN Application and SP Application to the extent practical; requested that EERA prepare an Environmental Assessment (EA) in lieu of an Environmental Review (ER) under Minn. R. 7849.1900; requested that an ALJ from the OAH preside over a hearing and prepare a summary report; granted a variance to Minn. R. 7849.0200, subp. 5, and extended the 30-day timeline; and addressed various other administrative matters.²²

23. On May 10, 2021, the Commission issued a Notice of Public Information and Environmental Review Scoping Meeting (Notice of Scoping Meeting) scheduling a meeting on May 25, 2021, via remote-access (telephone and/or internet). The Notice of Scoping Meeting announced that written comments would be accepted through June 9, 2021, and requested comments on issues and facts that should be considered in the development of the environmental assessment. The Notice of Scoping Meeting was mailed to landowners and local units of government located within and adjacent to the Project.²³

24. On May 12, 2021, the Notice of Scoping Meeting was published in the Austin Daily Herald.²⁴

25. On May 25, 2021, the Commission and EERA Staff held a public meeting via remote-access to provide the public with information about the Project, and to solicit comments on the scope of the environmental assessment.²⁵

26. During the comment period ending June 9, 2021, written comments were filed by the Minnesota Department of Natural Resources (MDNR)²⁶ and the Minnesota Department of Transportation (MnDOT).²⁷

27. On June 9, 2021, Louise Solar filed comments providing updates on the Project and additional information requested by EERA Staff regarding the point of interconnection and prime farmland, the decommissioning plan, and the vegetation management plan.²⁸

28. On June 11, 2021, the ALJ issued a Notice of Prehearing Conference, scheduling a prehearing conference on July 1, 2021.²⁹

29. On June 22, 2021, EERA Staff filed the Environmental Assessment Scoping Decision (EASD), which set forth the matters proposed to be addressed in the

²² Ex. 301 (Order Accepting Applications as Complete, Authorizing Joint Review, and Taking Other Actions).

²³ Ex. 302 (Notice of Public Information and Environmental Review Scoping Meeting).

²⁴ Ex. 105 (Compliance Filing – Publication Notice of Public Information and Scoping Meeting).

²⁵ See *generally* Public Information and Environmental Assessment Scoping Meeting Transcript (May 25, 2021).

²⁶ MDNR Comments (June 8, 2021) (eDocket No. 20216-174868-01).

²⁷ MnDOT Comments (June 9, 2021) (eDocket No. 20216-174922-01).

²⁸ Ex. 106 (Comments).

²⁹ Notice of Prehearing Conference (June 11, 2021) (eDocket Nos. 20216-174992-01, 20216-174992-02).

environmental assessment and identified certain issues outside the scope of the environmental assessment. No site or system alternatives were recommended for study. Accordingly, no site alternative other than the site location proposed by Louise Solar would be considered in the environmental assessment.³⁰

30. On August 9, 2021, the ALJ issued a Scheduling Order setting joint public hearings on the CN and SP Applications for October 12, 2021 (in person), and October 13, 2021 (remote access), and setting forth other procedural deadlines in the proceedings.³¹

31. On September 27, 2021, EERA Staff issued the Environmental Assessment (EA) for the Project.³² Notice of the availability of the Environmental Assessment was also published in the EQB Monitor.³³

32. On September 27, 2021, the Commission issued a Notice of EA Availability, Public Hearings and Comment Period, notifying the public of the October 12, 2021, in-person hearing and the October 13, 2021, remote-access hearing, and initiating a public comment period ending October 27, 2021.³⁴

33. On September 27, 2021, the EA was mailed to Mower County, the Grand Meadow Public Library, and the Austin Public Library.³⁵

34. On October 2, 2021, the Notice of EA Availability, Public Hearings and Comment Period was published in the Austin Daily Herald.³⁶

35. On October 12 and 13, 2021, the ALJ presided over joint public hearings on the SP and the CN Applications for the Project in-person and via remote means, respectively.³⁷ Commission Staff, EERA Staff, and representatives from Louise Solar were present. One member of the public spoke during the October 12, 2021, public hearing (in person).³⁸ During the remote-access public hearing held on October 13, 2021, two members of the public spoke.³⁹

36. On October 22, 2021, EERA Staff filed Supplemental Information to the EA, providing clarification to certain information in the EA.⁴⁰

³⁰ Ex. 200 (Environmental Assessment Scoping Decision).

³¹ Scheduling Order (Aug. 9, 2021) (eDocket Nos. 20218-176947-01, 20218-176947-02).

³² Ex. 201 (Environmental Assessment); Ex. 202 (Environmental Assessment – Appendices).

³³ Ex. 203 (Notice of EA Availability and Hearing – EQB Monitor); Ex. 304 (Proof of Publication).

³⁴ Ex. 303 (Notice of Comment Period – Notice of Environmental Assessment Availability, Public Hearings, and Comment Period).

³⁵ Affidavit of Mailing EA (Oct. 12, 2021) (eDocket Nos. 202110-178713-01, 202110-178713-02).

³⁶ Ex. 107 (Compliance Filing – Proof of Newspaper Publication).

³⁷ See Public Hearing Presentation (Oct. 13, 2021) (eDocket Nos. 202110-178762-01, 202110-178762-02).

³⁸ See Public Hearing Transcript (Oct. 12, 2021).

³⁹ See Public Hearing Transcript (Oct. 13, 2021).

⁴⁰ Supplemental Information to the EA (Oct. 22, 2021) (eDocket Nos. 202110-179063-01, 202110-179063-02).

37. On October 22, 2021, Louise Solar filed a revised Vegetation Establishment and Management Plan (VMP) reflecting changes Louise Solar made following its review of the Vegetation and Establishment Management Plan Guidance document, as well as comments received from and consultation with the state Vegetation Management Planning Working Group, comprised of representatives of the Minnesota Department of Commerce, EERA Staff, the Minnesota Department of Natural Resources (MDNR), the Minnesota Department of Agriculture and the Minnesota Board of Water and Soil Resources.⁴¹

38. On October 25, 2021, DER filed comments recommending that the Commission issue a Certificate of Need for the Project.⁴²

39. On October 26, 2021, Louise Solar filed a letter notifying the ALJ that Louise Solar planned to file Applicant's proposed findings of fact by October 29, 2021.⁴³

40. On October 28, 2021, the Minnesota Pollution Control Agency (MPCA) filed comments.⁴⁴

41. On October 28, 2021, MDNR filed comments.⁴⁵

III. DESCRIPTION OF THE PROJECT

42. The proposed Project is a 50 MW alternating current (AC) nameplate capacity solar energy conversion facility in Lodi and Adams Townships, Mower County, Minnesota. The Project would also include associated facilities.⁴⁶

43. The components of the Project include PV solar panels and racking, inverters, a Project transmission line,⁴⁷ security fencing, a Project substation, operations and maintenance (O & M) building, underground electrical collection system, electrical cables, conduit, switchgear, step up transformers, supervisory control and data acquisition (SCADA) systems, metering equipment, a temporary laydown yard, up to four weather stations, and gravel access roads.⁴⁸

44. The panels will be installed on a tracking rack system, generally aligned in rows north and south with the PV panels facing east toward the rising sun in the morning, parallel to the ground during mid-day, and then west toward the setting sun in the afternoon. The panels are rotated by a small motor connected to the tracking rack system

⁴¹ Louise Solar Comments – Revised Vegetation Management Plan (Oct. 22, 2021) (eDocket Nos. 202110-179032-01, 202110-179032-03, 202110-179032-02, 202110-179032-04).

⁴² DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01).

⁴³ Louise Solar Comments (Oct. 26, 2021) (eDocket Nos. 202110-179197-01, 202110-179197-02).

⁴⁴ MPCA Comments (Oct. 28, 2021) (eDocket Nos. 202110-179265-01, 202110-179265-02).

⁴⁵ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

⁴⁶ Ex. 101 at 13 (SP Application).

⁴⁷ The proposed Project transmission line is planned to be a 161 kV line spanning less than 1,500 feet and thus will not trigger the need for a Route Permit from the Commission. The planned Project transmission line is further exempt from CN requirements because it does not meet the voltage and length requirements of a large energy facility under Minn. Stat. § 216B.2421, subd. 1 (2020). *Id.* at 8.

⁴⁸ *Id.* at 10, 18-19.

to slowly track with the sun throughout the day. When the sun is directly overhead, the PV panels will be at a zero-degree angle (level to the ground) and four to six feet off of the ground. The tracker rows will follow the sun from approximately 60 degrees east to 60 degrees west through the course of the day. At 60 degrees (tilted to the highest position), the edge of the panels will be a maximum of 15 feet off the ground. The tracking rack system allows the Project to optimize the angle of the panels in relation to the sun throughout the day, thereby maximizing production of electricity and the capacity value of the Project. To the extent practical, the racking system foundations will be a driven pier and will not require concrete, although some concrete foundations may be required depending upon site specific soil conditions and geotechnical analysis.⁴⁹

45. The solar panels deliver direct current (DC) power to the inverters through cabling that will typically be located in an underground trench or ploughed in place (at least four feet deep and one to two feet wide). The depth to cables may be deeper for installation under existing utilities or other features requiring avoidance. The specific electrical collection technology used will be site-specific depending on geotechnical analysis, constructability, and availability of materials. Final engineering and procurement will help determine the construction method for the electrical collection system.⁵⁰ Part of the underground collection system will be horizontally directionally drilled under trunk highway (TH) 56 in two separate locations.⁵¹

46. Energy from the solar panels is directed through an underground electrical collection system to inverters where the power is converted from DC to alternating current (AC) power. The power is then transmitted to a step-up transformer located at the Project substation from 34.5 kV to 161 kV. Generated power is then carried to ITC Transmission's (ITC) Midwest's existing Adams Substation located immediately adjacent to the eastern Project Area boundary via a proposed above-ground, 161-kV transmission line where it connects to the energy grid. The short transmission line will be approximately 700-1,000 feet in length with several pole structures.⁵² The transmission line will include several wood or steel direct-embedded posts approximately 70-100 feet in height. The post structures are anticipated to consist of a standard horizontal braced-post design.⁵³

47. The Project will use a 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.⁵⁴

48. Several of the Project setbacks to the solar arrays are short of Mower County's setback requirements as stated in the Mower County Zoning Ordinance. The Applicant sited the Project with Mower County's setback in mind; however, land constraints such as existing gas pipeline and transmission line easements, wetlands, trees and others make it difficult for arrays to be sited further away from road rights-of-

⁴⁹ *Id.* at 19.

⁵⁰ *Id.* at 20.

⁵¹ Ex. 201 at 41 (EA).

⁵² Ex. 101 at 13 (SP Application).

⁵³ *Id.* at 10.

⁵⁴ *Id.* at 29.

way, side/rear property lines of lands not included as part of the solar farm, and dwellings not owned by an owner/benefactor of the solar farm. Louise Solar is committed to working with Mower County to meet setback requirements where feasible.⁵⁵

49. Louise Solar is actively marketing the Project to a number of potential off-takers and may sell the power in the form of a Power Purchase Agreement (PPA), or the Project could be owned directly by a utility, such as through a Develop, Build, Sale (DBS) agreement.⁵⁶

50. The total installed capital costs for the Project are estimated to be approximately \$62.05 million, with Project cost depending on variables including, but not limited to, construction costs, taxes, tariffs, and panel selection, along with associated electrical and communication systems, and access roads.⁵⁷

IV. SITE LOCATION AND CHARACTERISTICS

51. The Applicant has 100 percent land control for the Project, which is approximately 613 acres of private land under lease (the Project Area). The Project Area refers to all land within the Project boundary under agreement with a landowner (613 acres). The Applicant estimates that approximately 325 acres of the 613 acres is necessary to accommodate the final design of the 50 MW Project (the Preliminary Development Area). The Preliminary Development Area refers to portions of the Project Area hosting solar equipment (325 acres), generally defined as the area within the security fencing and includes the access roads extending beyond the Project facility fenced area.⁵⁸

52. The Project is located in a rural, agricultural area. Based on the 2010 U.S. Census, the population of Mower County is 39,163 persons, which represents less than one percent of the total population of Minnesota.⁵⁹ There are no homes within the project area.⁶⁰

V. SOLAR RESOURCE CONSIDERATIONS

53. 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 4.3 and 4.5 kilowatt hours per square meter per day.⁶¹

⁵⁵ *Id.* at 24.

⁵⁶ *Id.* at 2; Ex. 100 at 10 (CN Application).

⁵⁷ Ex. 100 at 30-31 (CN Application); Ex. 101 at 17 (SP Application).

⁵⁸ Ex. 101 at 11, 13 (SP Application).

⁵⁹ *Id.* at 48.

⁶⁰ Ex. 201 at 25 (EA).

⁶¹ Ex. 101 at 13 (SP Application).

54. The Project is anticipated to have a net capacity factor of between approximately 25 percent and 28 percent, with projected average output of approximately 112,593 megawatt hours (MWh) annually of reliable, deliverable on-peak energy.⁶²

VI. PROJECT SCHEDULE

55. Construction of the Project is generally staged for a late-year (fourth quarter) 2022 commercial operation date based on milestones set in finance and power purchase agreements. The commercial operation date is dependent on the completion of the interconnection process, permitting, and other development activities.⁶³

VII. SUMMARY OF PUBLIC COMMENTS AND RESPONSES

56. No members of the public provided verbal comments/questions during the Public Information and Environmental Assessment Scoping Meeting (remote-access) held on May 25, 2021.⁶⁴ During the comment period ending June 9, 2021, written comments were filed by MDNR,⁶⁵ MnDOT,⁶⁶ and Louise Solar.⁶⁷ No site or system alternatives were recommended for study.

57. On June 9, 2021, Louise Solar submitted comments to further develop the record on prime farmland, decommissioning, and the VMP.⁶⁸

58. The one member of the public who spoke during the October 12, 2021 public hearing (in person), asked for confirmation that the fencing at the Project would be high enough so that a deer could not jump it. Louise Solar responded that the fence would be intended to keep both people and wildlife out. The commenter also asked whether the solar arrays rotate or are stationary. Louise Solar explained how the panels move. The commenter also stated he had heard property values or property taxes might decline due to the Project but did not understand why that would be the case. Louise Solar responded that examples it has of property sales near other solar facilities located in Minnesota are not showing drops in property value.⁶⁹

59. During the remote-access public hearing held on October 13, 2021, two members of the public spoke. The two commenters expressed support for the Project because it would result in construction jobs in the region.⁷⁰

⁶² Ex. 100 at 31 (CN Application).

⁶³ Ex. 103 (Reply Comments).

⁶⁴ See *generally* Public Information and Environmental Assessment Scoping Meeting Transcript (May 25, 2021).

⁶⁵ MDNR Comments (June 8, 2021) (eDocket No. 20216-174868-01).

⁶⁶ MnDOT Comments (June 9, 2021) (eDocket No. 20216-174922-01).

⁶⁷ Ex. 106 (Comments).

⁶⁸ *Id.*

⁶⁹ See Public Hearing Transcript (Oct. 12, 2021).

⁷⁰ See Public Hearing Transcript (Oct. 13, 2021).

60. On October 25, 2021, DER filed comments recommending that the Commission issue a Certificate of Need for the Project.⁷¹

VIII. MDNR COMMENTS

61. On June 8, 2021, commenting on Section 5.0 of the site permit's reference to the MDNR's Commercial Solar Siting Guidance, MDNR clarified that this guidance is being updated to reflect current best practice and specifications, including fencing recommendations. MDNR cautioned that a six-foot fence is not high enough to exclude deer and placing smooth strand wire on top of a six-foot fence may result in entanglement. An eight-foot fence would exclude most deer, although some deer may be able to clear the fence. Deer that jump the fence may not be able to jump back out, thus becoming trapped within the solar facility. In this scenario, deer egress areas in the fencing design could allow deer a safe exit. To ensure complete deer exclusion from the solar facility, the DNR's Fencing Handbook For 10 ft Woven Wire Deer Exclusion Fence recommends ten-foot fencing.⁷²

62. MDNR renewed its concerns in its comments dated October 27, 2021, and filed on October 28, 2021, noting that the current proposal still includes fencing that is six feet high. MDNR explained that this design entails a significant risk that deer could get inside the facility, not be able to get out, and cause damage both to themselves and the solar panels. In addition, the proposed top guard is not wildlife friendly: it does not provide a sufficient deterrent to deer attempting to jump the fence, but could cause damage to the deer and the fencing if they tried and failed. This height can present a hazard for birds as well. A ten-foot fence would improve safety for wildlife and prevent damage to the facility.⁷³

63. Louise Solar responded to MDNR's concerns arguing that Louise Solar's proposed fencing was designed in accordance with MDNR's 2016 Guidance for Commercial Solar Projects. While the MDNR noted that it is in the process of updating its fencing guidance, Louise Solar stated that the updated guidance has not been finalized, and the Project was designed to comply with the MDNR guidance currently in effect. Louise Solar also believes that MDNR's 2016 Guidance for Commercial Solar Projects appropriately balances visual impacts to neighboring properties with wildlife impacts. Louise Solar asserts that a ten-foot fence would increase visual impacts to adjacent residences and would likely require larger/deeper foundations, thereby increasing soil disturbance. Additionally, according to Louise Solar, a ten-foot fence would cost at least 25 percent more than the fencing currently proposed by Louise Solar. Louise Solar also argued that operations and maintenance personnel will be onsite weekly and will be able to identify any wildlife within the fenced area. If deer are present, operations and maintenance personnel will take appropriate action to safely remove any deer from the fenced area. Louise Solar is unaware of circumstances where deer have caused issues with equipment inside the fenced area.⁷⁴

⁷¹ DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01).

⁷² MDNR Comments (June 8, 2021) (eDocket No. 20216-174868-01).

⁷³ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

⁷⁴ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

64. MDNR also commented that it expects, along with other relevant state agencies, to be given the opportunity to review the revised VMP for the Project prior to finalization.⁷⁵

65. Louise Solar responded that it would continue to review seed mixes in coordination with the agency working group.⁷⁶

66. MDNR reviewed shapefiles of the project and found that the project fence is 35 feet from the trail and not 108 feet as stated in the application, and that the collection line would cross the trail. DNR is concerned that construction of the collector line could disrupt recreational activities on the trail as well as cause damage to the trail, and that its presence could pose a safety hazard for recreational trail users. MDNR requested that Louise Solar provide a discussion of the practices to be followed to minimize or mitigate construction-related impacts to trail use and condition, as well as of continued impacts to trail use and safety due to the presence of the collection line.⁷⁷

67. Louise Solar responded that the collection line will be bored under the Shooting Star State Trail and that no construction-related impacts or operational impacts to trail use are anticipated.⁷⁸ The response leaves unclear whether construction of the collection line, or other aspects of construction of the project, will impact the trail while the line is being bored under the trail or in other ways. However, section 5.7 of the Draft Site Permit anticipates and addresses disruption to the trail and requires Louise Solar to coordinate with the MDNR to identify mitigation strategies, including detours, closures, or other impacts associated with construction of the project. The results of the coordination must be submitted to the Commission 30 days prior to the preconstruction meeting and be included in the site plan.⁷⁹

68. MDNR notes that a strip of native prairie with an associated state endangered plant species (*Parthenium integrifolium*, wild quinine), exists along State Highway 56. To prevent inadvertent impacts associated with construction, MDNR recommends marking this area prior to construction. Furthermore, MDNR noted that, while none of the planned work is expected to occur in this strip, the strip could be adversely affected if construction equipment, supplies, or personal vehicles are stored or move across this area, or if the collection line is proposed to cut across the area. MDNR also commented that either possible impact can be avoided by clearly marking off the prairie strip to prevent inadvertent movement or placement of materials or equipment in it, and by directionally boring under the prairie to install the collection line.⁸⁰

⁷⁵ MDNR Comments (June 8, 2021) (eDocket No. 20216-174868-01).

⁷⁶ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

⁷⁷ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01); Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

⁷⁸ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

⁷⁹ Draft Site Permit (Nov. 9, 2021) (eDocket No. 202111-179620-06).

⁸⁰ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

69. Louise Solar responded that the native prairie is located on the western side of the Project and will be avoided. The collection line will be bored under it, and Louise Solar will mark the area during construction.⁸¹

70. MDNR recommended clarifying impacts and timing of mowing to protect birds during the nesting season. It also recommended clarifying sections 8.12 and 4.38 of the permit and management practices, regarding reporting requirements for wildlife injuries or fatalities. It also recommended strengthening the Project's commitment to mitigation measures.⁸²

71. Louise Solar responded that it would incorporate when practical, considering weather and other factors, MDNR's recommendation regarding staggering mowing in the fall to allow some vegetation to provide overwintering habitat for insects.⁸³

72. MDNR raised concerns about the VMP, including the hydric soils on site and the potential for those soils to become wetter, possibly interfering with site operation; development of seed mixes appropriate for wet soil conditions; locating infiltration basins in hydric soils and verifying infiltration design rates with an infiltration test; soil compaction and damage to soil structure which reduces soil function; seeding and planting with a recommendation to time seeding to allow for winter stratification; and a recommendation to stagger mowing in the fall to retain some vegetation for overwintering habitat for insects. More specifically, MDNR notes that soil structure is irreplaceable and damaging it encourages the spread of invasive species. Furthermore, decompaction techniques are only effective in the short-term and soil compaction cannot be reversed.⁸⁴

73. Louise Solar responded that soils listed as predominantly hydric or all hydric are scattered throughout the Project location. 91.3 percent of the soils in Mower County are hydric soils. The engineering and design of the Project contemplated the existing soil types, and construction and operation of a solar facility are feasible within hydric soils. Additionally, Louise Solar pledged to work with participating landowners to identify and, to the extent practicable, avoid existing drain tile currently functioning to drain hydric soil areas. Drainage will be augmented by additional drain tile, as needed, in areas of known hydric soils to ensure proper drainage is maintained in the postconstruction condition. Louise Solar also replied that it would defer to EERA for responses regarding potential impacts and mitigation measures discussed in the EA.⁸⁵

74. Regarding impacts to agricultural land and to soils the EA first notes that the intensity of impact is likely to be subjective. For example, conversion of farmland to energy production can be viewed as a conversion from one type of industrial use to

⁸¹ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

⁸² MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

⁸³ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

⁸⁴ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

⁸⁵ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01). While the term hydric soil is used extensively in the EA, it is not defined. However, the connotation is that these are soils that are so saturated with water that they may become wetlands if not drained.

another.⁸⁶ Generally, the EA, while acknowledging that the project will disturb 325 acres, assesses the impact to soils as temporary and minor and mitigated through the proper use of BMPs as addressed through the VMP and the Agricultural Mitigation Plan (AIMP).⁸⁷

IX. MNDOT COMMENTS

75. MnDOT provided comments regarding site access from TH 56, MnDOT's Utility Accommodation Policy, and verifying stormwater run-off calculations for the Project.⁸⁸ MnDOT noted that any MnDOT permits applied for as a part of the Project will not be issued until the Commission has issued an approved site permit. MnDOT also noted that for any areas where the Project intersects state highway rights of way, Louise Solar should adhere to MnDOT's Utility Accommodation Policy.⁸⁹ MnDOT commented that new access to the proposed site via TH 56 is considered unnecessary given the availability of existing county and township roads currently accessible via TH 56 within/adjacent to the Project Area.⁹⁰ MnDOT also commented that MnDOT's District 6 Water Resources Engineer would like to see and verify storm water runoff calculations, including a summary table, showing that the Louise Solar Project will not be increasing peak runoff rate to MnDOT right of way.⁹¹

76. MnDOT's concerns are addressed in the Draft Site Permit.⁹²

X. MPCA COMMENTS

77. On October 28, 2021, the MPCA filed comments regarding the EA and permits required by the MPCA for construction of the project. The MPCA noted that the Project drains into the Little Cedar River sub-watershed and that the Project partially drains to Unnamed Creek (07080201-519) which has an impaired macroinvertebrate community with nitrate identified as the pollutant stressing the macroinvertebrate community. MPCA also noted that construction of the Project may require use of additional erosion and sediment control Best Management Practices (BMPs) during construction in accordance with the National Pollutant Discharge Elimination System/State Disposal System General Construction Stormwater Permit (CSW Permit) requirements.⁹³

78. Louise Solar deferred to DER to address comments by the MPCA.⁹⁴ It appears that section 5.2 of the Draft Site Permit addresses some of MPCA's concerns by addressing buffers around water bodies and sediment controls.⁹⁵

⁸⁶ Ex. 201 at 59 (EA).

⁸⁷ *Id.* at 69

⁸⁸ MnDOT Comments (June 9, 2021) (eDocket No. 20216-174922-01).

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² Draft Site Permit (Nov. 9, 2021) (eDocket No. 202111-179620-06).

⁹³ MPCA Comments (Oct. 28, 2021) (eDocket Nos. 202110-179265-01, 202110-179265-02).

⁹⁴ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

⁹⁵ Draft Site Permit (Nov. 9, 2021) (eDocket No. 202111-179620-06).

CERTIFICATE OF NEED

I. CERTIFICATE OF NEED CRITERIA

79. Pursuant to Minn. Stat. § 216B.243 (2020), all “large energy facilities” must receive a certificate of need from the Commission prior to construction.⁹⁶ A “large energy facility” is defined, in relevant part, as “any electric power generating plant or combination of plants at a single site with a combined capacity of 50,000 kilowatts or more and transmission lines directly associated with the plant that are necessary to interconnect the plant to the transmission system.”⁹⁷

80. The proposed Project qualifies as a “large energy facility” as defined by Minn. Stat. § 216B.2421, subd 2(1), and a “large electric generating facility” (LEGF) as defined by Minn. R. 7849.0010, subp. 13 (2021). Accordingly, the Project requires a certificate of need from the Commission.

81. Minn. Stat. § 216B.243 and Minnesota R. Ch. 7849 set forth the criteria for issuance of a certificate of need. The Commission has established criteria to assess the need for an LEGF in Minn. R. 7849.0120:

A certificate of need must be granted to the applicant on determining that:

- A. the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:
 - (1) the accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility;
 - (2) the effects of the applicant's existing or expected conservation programs and state and federal conservation programs;
 - (3) the effects of promotional practices of the applicant that may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974;
 - (4) the ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and
 - (5) the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;

⁹⁶ See *also* Minn. R. 7849.0030 (requiring a certificate of need for “large electric generating facilities” as defined in Minn. R. 7849.0010, subp. 13).

⁹⁷ Minn. Stat. § 216B.2421, subd. 2(1).

- B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record, considering:
- (1) the appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;
 - (2) the cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;
 - (3) the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and
 - (4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;
- C. by a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health, considering:
- (1) the relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;
 - (2) the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;
 - (3) the effects of the proposed facility, or a suitable modification thereof, in inducing future development; and
 - (4) the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality; and
- D. the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

82. The factors listed under each of the criteria set forth in Minn. R. 7849.0120 must be evaluated to the extent that the commission considers them applicable and pertinent to a proposed facility.⁹⁸

83. The Applicant, Louise Solar bears the burden of demonstrating the need for the Project,⁹⁹ by a preponderance of the evidence.¹⁰⁰

II. APPLICATION OF CERTIFICATE OF NEED CRITERIA TO THE PROPOSED PROJECT

A. The Probable Result of Denial Would be an Adverse Effect Upon the Future Adequacy, Reliability, or Efficiency of Energy Supply to the Applicant, to the Applicant's Customers, or to the People of Minnesota and Neighboring States, Considering Minnesota Rules 7849.0120(A)(1)-(5). Minnesota Rule 7849.0120(A).

84. The first of the four criteria established by the Commission for the granting of a CN calls for an examination of whether “the probable result of denial would adversely affect the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states.”¹⁰¹ To perform this examination, the Commission considers multiple factors, including the forecasted need, available energy resources, and the advantages and disadvantages of utilizing alternative resources.¹⁰²

85. The forecast of need does not focus merely on immediate needs. Where there is a “reasonably predicted demand” and the Project is the most efficient way to meet it, Minn. R. 7849.0120(A) is met.¹⁰³

86. As an independent power producer, Louise Solar does not sell power directly to end-use (or retail) customers, but instead will sell power, or the Project, to utilities or make the energy available to wholesale power customers via the regional transmission system.¹⁰⁴ Because Louise Solar has applied to interconnect the Project to the MISO regional transmission system, it can serve customers not just in Minnesota but also in the surrounding states.¹⁰⁵

⁹⁸ Minn. R. 7849.0100.

⁹⁹ See Minn. Stat. § 216B.243, subd. 3.

¹⁰⁰ See Minn. R. 1400.7300, subp. 5.

¹⁰¹ Minn. R. 7849.0120(A).

¹⁰² *In re Northern States Power Co.*, No. A10-397, 2010 WL 4608342, at *4-*5 (Minn. Ct. App. Nov. 15, 2020); see also *In re Great River Energy*, Nos. A09-1646, A09-1652, No. 2010 WL 2266138, at *3-*4 (Minn. Ct. App. June 8, 2010) (affirming grant of certificate, even when evidence showed general decreases in energy needs over the next decade because, among other things, “forecasts were only one of the factors the MPUC considered in its decision to grant the certificates of need”).

¹⁰³ *Northern States Power Co.*, 2010 WL 4608342, at *4-*5.

¹⁰⁴ Ex. 100 at 18 (CN Application).

¹⁰⁵ *Id.* at 20.

87. Applicant has demonstrated that the denial of a Certificate of Need for this Project would result in adverse effects on the future electricity needed to meet state and regional demand for renewable energy and would deny utilities and non-utilities the opportunity to purchase 50 MW of clean, low-cost energy that would count toward satisfying renewable and/or other clean energy standards and goals.¹⁰⁶ State legislative policy has sought to expand Minnesota’s reliance on renewable energy.¹⁰⁷ Both utility and non-utility customers have also stated plans to increase reliance on renewable energy resources, including solar.¹⁰⁸

1. Accuracy of the Applicant's Forecast of Demand for the Type of Energy That Would be Supplied by the Proposed Facility

88. Minnesota Minn. R. 7849.0120(A)(1) requires consideration of “the accuracy of the applicant’s forecast of demand for the type of energy that would be supplied by the proposed facility” when determining if denial of a Certificate of Need application would have an adverse effect.

89. This sub-factor relates to Minn. Stat. § 216B.243, subd. 3(1), which requires the Commission, in assessing need, to consider “the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based.”

90. Because Louise Solar is an independent power producer and does not have a utility “system” as defined in Minn. R. 7849.0010, subp. 29, Louise Solar requested an exemption from the forecast data requirements in Minn. R. 7849.0270 and instead offered to provide data regarding the regional demand, consumption, and capacity data from credible sources to demonstrate the need for the independently produced renewable energy that will be generated by the Project.¹⁰⁹

91. The Commission granted this exemption and permitted use of alternative data for demonstrating demand for the energy supplied by the Project.¹¹⁰

a) Public Policy Shows Demand for the Project

92. Minnesota and states around the region continue to pursue renewable energy goals and standards that must be satisfied. Eleven of the MISO states, including Minnesota, currently have either mandated or voluntary renewable portfolio standards or policies, including renewable or clean energy objectives or standards that establish a specific percentage of retail energy sales that must come from renewable energy each year.¹¹¹ Pursuant to Minn. Stat. § 216B.1691 (2020), utilities in Minnesota are required to provide 25 percent of their total retail electric sales from eligible renewable resources by

¹⁰⁶ *Id.* at 18.

¹⁰⁷ *See id.* at 10-15.

¹⁰⁸ *See id.*

¹⁰⁹ Louise Solar Request for Exemption from Certain Certificate of Need Application Content Requirements (Aug. 5, 2020) (eDocket Nos. 20208-165612-01, 20208-165612-02).

¹¹⁰ Order (Sep. 21, 2020) (eDocket No. 20209-166711-01).

¹¹¹ Ex. 100 at 12-13 (CN Application).

2025.¹¹² Other policies target reductions in greenhouse gas emissions, which also promote increasing use of renewable energy.¹¹³

93. Eleven of the MISO states, including Minnesota, currently have either mandated or voluntary renewable portfolio standards or policies.¹¹⁴ For example, in 2021, the North Dakota Legislature enacted a statutory provision adopting a low-emission technology initiative, which establishes a goal that the “agricultural, forestry, natural resources, and working land of the United States should provide energy from low-emission technology and continue to produce safe, abundant, and affordable food, fuel, feed, and fiber.”¹¹⁵ Under current state policies, the total United States renewable portfolio standard demand will increase from 310 terawatt hours (TWh) in 2019 to 600 TWh in 2030. Given existing renewable energy capacity, an additional 270 TWh increase in renewable resources will be required to meet demand through 2030. Additionally, several states have set greenhouse gas emission targets.¹¹⁶

b) Planning by the Commission and Utilities Shows Demand for the Project

94. Because Louise Solar is an independent power producer that plans to sell energy, capacity and renewable energy credits, either bundled or unbundled, produced by the Project to one or more electric utilities and/or commercial customers, traditional utilities are potential customers.¹¹⁷ The Commission has indicated that the demonstration of corporate demand and internal utility goals is sufficient evidence to demonstrate need under Minnesota Rules, part 7849.0120.¹¹⁸

95. The Commission and the utilities continue to set independent renewable energy goals, as well as to plan for additional requirements to reduce carbon from energy sources and an increase to the RES by seeking additional renewable energy sources above and beyond that which is currently required by the RES.¹¹⁹ Minnesota utilities are advancing efforts to transition to renewable energy. For example, the compliance filing by the Minnesota Transmission Owners’ Biennial Transmission Report outlines gaps between existing and planned transmission lines and the transmission system that will be required to meet the companies’ publicly stated clean energy goals. The Report lists the following clean energy goals of Minnesota utilities:

¹¹² *Id.* at 13.

¹¹³ See, e.g., Minn. Stat. § 216H.02.

¹¹⁴ Ex. 100 at 12-13 (CN Application).

¹¹⁵ See N.D.C.C. § 17-01-01. As used in this initiative, low-emission technology includes, among others, solar.

¹¹⁶ See Ex. 100 at 12-14 (CN Application).

¹¹⁷ *Id.* at 10.

¹¹⁸ DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01) (citing Docket No. IP-6997/CN-18-699).

¹¹⁹ See Ex. 100 at 11 (CN Application).

- Dairyland Power Cooperative is transitioning to a more diverse generation portfolio, with carbon reduction and system reliability stated as “central issues”;
- Great River Energy has a goal to serve its all-requirements member-owner cooperatives with energy that is 50 percent renewable by 2030;
- Minnesota Municipal Power Agency has a goal to have 100 percent renewable generation “when economical”;
- Minnkota Power Cooperative is committed to finding opportunities to reduce carbon emissions; and
- Rochester Public Utilities has a goal to transition to 100 percent renewable energy by 2030.¹²⁰

96. A review of utilities’ integrated resource plans (IRPs), requests for proposals, and similar documents demonstrates that utilities will seek additional renewable generation resources in the next several years.¹²¹ DER noted utilities will, in general, need to acquire additional solar energy to meet the ten percent solar energy goal for the state of Minnesota by 2030. Additionally, there is a regional trend towards retirements of coal units, indicating a market exists for new renewable energy.¹²²

c) Commercial and Industrial Customer Demand Also Supports the Project

97. Commercial and industrial (C&I) entities also are potential wholesale customers for energy generated by the Project. Corporate PPA volumes in MISO have increased each of the past five years and Minnesota has seen an increase in cumulative operational and in-development C&I renewable capacity, which highlights the broader trend of increased demand for renewables across the United States. Similarly, according to a 2019 research report, corporate contracts accounted for 22 percent of 2018 power-purchase agreements for renewables in the United States. Further, the buyers are not just large corporations; smaller companies are entering into aggregated purchasing models and further driving additional market expansion.¹²³ DER agreed that Louise Solar provided sufficient evidence demonstrating corporate demand for renewables.¹²⁴

¹²⁰ *Id.*

¹²¹ *Id.* at 39.

¹²² DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01).

¹²³ Ex. 100 at 14-15 (CN Application).

¹²⁴ DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01).

98. Given the demand for renewable energy, a market exists for independently produced electricity generated from solar and other renewables, including the 50 MW to be generated by the Project.¹²⁵

99. The accuracy of the demand data provided is undisputed, and the Applicant has satisfied Minn. R. 7849.0120(A)(1).

2. Effects of the Applicant's Existing or Expected Conservation Programs

100. Minn. R. 7849.0120(A)(2) requires consideration of “the effects of the applicant’s existing or expected conservation programs and state and federal conservation programs.”

101. This sub-factor relates to Minn. Stat. § 216B.243, subd. 3, which states that “no proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load management.”

102. Similarly, Minn. Stat. § 216B.243, subd. 3(2), requires that the Commission consider the effect of existing or possible energy conservation programs under Sections 216C.05 to 216C.30 and this section or other federal or state legislation on long-term energy demand.

103. Also, Minn. Stat. § 216B.243, subd. 3(8), provides that the Commission, in assessing need, shall consider any feasible combination of energy conservation improvements, required under section 216B.241, that can . . . (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically.

104. Likewise, Minn. R. 7849.0290 (2021) provides additional details on the information the applicant is to include on conservation programs.

105. These statutory requirements are contained in this rule subpart and Minn. R. 7849.0290.

106. Louise Solar is not a utility and does not have a system or retail customers to implement conservation projects.¹²⁶

107. In its September 21, 2021 Order, the Commission granted Louise Solar an exemption from these requirements. Thus, the Applicant does not need to satisfy Minn. R. 7849.0120(A)(2), .0290 (2021), and Minn. Stat. § 216B.243, subd. 3, 3(2), and 3(8).¹²⁷

¹²⁵ Ex. 100 at 15 (CN Application).

¹²⁶ See *id.* at 40.

¹²⁷ Order (Sep. 21, 2020) (eDocket No. 20209-166711-01).

3. Effects of Promotional Practices of the Applicant that May Have Given Rise to the Increase in the Energy Demand

108. Minn. R. 7849.0120(A)(3) requires consideration of the effects of promotional practices of the applicant that may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974.

109. This sub-factor relates to Minn. Stat. § 216B.243, subd. 3(4), which requires the Commission, in assessing need, to consider “promotional activities that may have given rise to the demand for this facility.”

110. Applicant did not engage in promotional activities to give rise to the Project.¹²⁸ In its September 21, 2021 Order, the Commission granted Louise Solar an exemption from these requirements.¹²⁹ Thus, the Applicant does not need to satisfy Minn. R. 7849.0120(A)(3), Minn. R. 7849.0290, and Minn. Stat. § 216B.243, subd. 3(4).

4. The Ability of Current Facilities and Planned Facilities Not Requiring a Certificate of Need to Meet the Future Demand

111. Minn. R. 7849.0120(A)(4) requires consideration of “the ability of current facilities and planned facilities not requiring Certificates of Need to meet the future demand.”

112. This sub-factor relates, in part, to Minn. Stat. § 216B.243, subd. 3(6), which requires the Commission, in assessing need, to consider “possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation.”

113. Minn. R. 7849.0340 requires data for the alternative of “no facility,” including a discussion of the impact of this alternative on the applicant’s generation and transmission facilities, system and operations. As an IPP, Applicant does not have a system, nor does it have other generation or transmission facilities in Minnesota. The Commission granted Applicant an exemption from Minn. R. 7849.0340.¹³⁰

114. Further, existing facilities and other non-build alternatives are not available to meet future demand.¹³¹ The Project is designed to increase the amount of energy available for purchase on the wholesale market that will satisfy clean energy standards. Not building the facility would result in no increase in renewable energy and, in turn, no opportunity for utilities to purchase the Project’s output to satisfy clean energy standards and goals.¹³²

¹²⁸ Ex. 100 at 16 (CN Application).

¹²⁹ Order (Sep. 21, 2020) (eDocket No. 20209-166711-01).

¹³⁰ *Id.*

¹³¹ Ex. 100 at 35 (CN Application).

¹³² *Id.*

115. The Applicant has satisfied Minn. R. 7849.0120(A)(4) (2021).

5. The Effect of the Proposed Facility, or a Suitable Modification Thereof, In Making Efficient Use of Resources

116. Minn. R. 7849.0120(A)(5) (2021) requires consideration of “the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources.”

117. No fuel will be burned in the production of energy at the Project, and solar is a highly efficient and cost-effective recourse for the generation of energy.¹³³

118. The site chosen was recognized as being favorable to a solar project due to the identified transmission capacity and ability to site the project close to the POI, and without the need for lengthy overhead transmission.¹³⁴ There has been considerable wind development in this area of Minnesota historically, which limits the ability to site the proposed solar Project at another location while remaining close enough to the Adams Substation. Accordingly, Louise Solar makes efficient use of the regional transmission system by developing a no-emissions solar energy project at a location with low-cost interconnection and few required upgrades.¹³⁵

119. The Applicant has satisfied Minn. R. 7849.0120(A)(5).

6. Conclusion Regarding Minnesota Rule 7849.0120(A)

120. As discussed above, the Applicant has addressed each of the five sub-factors of Minn. R. 7849.0120(A). Considering those sub-factors, the probable result of a denial of the CON would be an adverse effect on the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant’s customers, or to the people of Minnesota and neighboring states.¹³⁶

121. More specifically the probable result of a denial of the CON would be the loss of some clean, efficient, and cost-efficient energy available to meet current and future renewable energy obligations. A denial would also probably result in the loss of local economic benefits.¹³⁷

122. Furthermore, looking at the specific factors delineated above, the Applicant has demonstrated that there is a reasonably predicted need for low-cost renewable energy, both in the short and long-term, in Minnesota and in neighboring states, and for utility and non-utility customers. DER agrees, that due its size, the Project is an efficient and cost-effective resource to meet those energy demands.¹³⁸

¹³³ *Id.* at 31.

¹³⁴ *Id.* at 33.

¹³⁵ *Id.* at 20.

¹³⁶ Minn. R. 7849.0120A.

¹³⁷ *See, e.g.*, Ex. 100 at 18-19, 21-23 (CN Application).

¹³⁸ *See* DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01).

B. A More Reasonable and Prudent Alternative to the Proposed Facility Has Not Been Demonstrated by a Preponderance of the Evidence on the Record. Minnesota Rule 7849.0120(B).

123. Minn. R. 7849.0120(B) requires that “a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record.”

124. This factor relates to Minn. Stat. § 216B.243, subd. 3(6), which requires the Commission, in assessing need, to consider “possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation.”

125. The Applicant’s burden of proof is met by providing evidence establishing the needs and showing that the proposed Project is a reasonable and prudent way to satisfy the articulated needs.

126. Consistent with state requirements, the Applicants analyzed multiple alternatives for meeting the identified needs. No reasonable and prudent alternative was proposed or demonstrated.

1. Appropriateness of the Size, Type, and Timing of the Proposed Facility Compared to those of Reasonable Alternatives

127. Minn. R. 7849.0120(B)(1) requires consideration of “the appropriateness of the size, type, and timing of the proposed facilities relative to reasonable alternatives.”

128. With respect to the Project’s size, as addressed above, the regional need for renewable energy in the coming years exceeds the amount of energy to be supplied by the Project.¹³⁹ DER concluded that the proposed Project’s size is not excessive and therefore is reasonable.¹⁴⁰

129. Regarding the type of facility, the Commission granted Louise Solar an exemption from Minn. R. 7849.0250(B) with respect to evaluating non-renewable alternatives because such alternatives do not meet the Project’s objective of providing energy that will satisfy renewable energy and other clean energy standards and goals.¹⁴¹ Furthermore, DER found that, on a cost basis, none of the alternatives evaluated were as cost-effective as the proposed Project. Given these factors, along with the preference for renewable, non-carbon-emitting energy resources in Minnesota Statutes, DER concluded that the proposed Project’s type is reasonable.¹⁴²

¹³⁹ Ex. 100 at 20 (CN Application).

¹⁴⁰ DER Comments at 8 (Oct. 25, 2021) (eDocket No. 202110-179134-01).

¹⁴¹ Order (Sep. 21, 2020) (eDocket No. 20209-166711-01); Ex. 100 at 20 (CN Application).

¹⁴² DER Comments at 8 (Oct. 25, 2021) (eDocket No. 202110-179134-01).

130. With respect to timing, the Project is expected to be on-line and operational by the end of 2022 or 2023, depending on completion of regulatory approvals and the MISO interconnection process. This will help Minnesota and other electric utilities achieve the necessary renewable energy levels required to meet pending clean energy standards milestones.¹⁴³

131. DER agreed that the proposed size, type, and timing of the Project are reasonable and recommended Commission approval.¹⁴⁴

132. As summarized above, the record reflects that the Applicant has demonstrated the size, type, and timing of the Project is reasonable compared to those of the reasonable alternatives.

133. Thus, the Applicant has satisfied Minn. R. 7849.0120(B)(1).

2. The Cost of the Proposed Facility and the Cost of the Energy to be Supplied by the Proposed Facility compared to the costs of Reasonable Alternatives and the Cost of Energy that would be Supplied by Reasonable Alternatives

134. Minn. R. 7849.0120(B)(2) requires consideration of “the cost of the proposed facility and the cost of the energy to be supplied by the proposed facility as compared to the costs of the reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives.”

135. Applicant provided data that the Project will generate electricity at a lower cost per kilowatt hour than would other possible fossil fuel and renewable energy options, such as coal and biomass. Even though the Solar Investment Tax Credits (ITC) phases down over the next several years, solar generation growth is anticipated to continue because the costs for solar continue to fall faster than for other sources. Although Louise Solar does not currently have a PPA, these low costs should allow it to secure long-term purchasers at attractive prices and terms. Importantly, as an independent power producer, Louise Solar, rather than the State or its ratepayers, bears the risk of not securing a PPA or otherwise not selling the Project's output.¹⁴⁵

136. Thus, the Applicant has satisfied Minn. R. 7849.0120(B)(2).

¹⁴³ Ex. 100 at 20 (CN Application).

¹⁴⁴ See DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01).

¹⁴⁵ *Id.* at 11; Ex. 100 at 20-21 (CN Application).

3. The Effects of the Proposed Facility Upon the Natural and Socioeconomic Environments Compared to the Effects of Reasonable Alternatives

137. Minn. R. 7849.0120(B)(3) requires consideration of “the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives.”

138. The Applicant submitted information show minimal impacts on socioeconomic resources.¹⁴⁶

139. The socioeconomic impacts associated with the Project will be positive. Wages will be paid and expenditures will be made to local businesses and landowners during the Project’s construction and operation. The construction and operation of the Project will increase Mower County’s tax base. In addition, purchase payments to landowners will offset potential financial losses associated with removing a portion of their land from agricultural production. The Project will impact up to 325 acres of agricultural land within the Preliminary Development Area by taking land out of row-crop production but will not result in a significant impact to land-based economies in the Project vicinity. Of the 455,680 acres in Mower County, the majority (approximately 447,193 acres) are cropland. Impacts to 325 acres of agricultural land within the solar facility would temporarily reduce the amount of agricultural land in the County by approximately 0.0008 percent. Agricultural production would be allowed to continue in the area within the Project Area but outside the fence of the Preliminary Development Area during construction and operation of the Project. The Project will be sited in a way that minimizes environmental impacts.¹⁴⁷ Project construction will not negatively impact leading industries within the Project Area. There is no indication that any minority or low-income population is concentrated in any one area of the Project.¹⁴⁸

140. EERA Staff prepared an EA for the Project that considers the natural and socioeconomic effects of the Project, which found that socioeconomic impacts of the Project are anticipated to be positive.¹⁴⁹

141. The Project is estimated to provide annual production tax revenues to Mower County of approximately \$105,000-\$115,000 annually over 35 years or longer. Additionally, Lodi and Adams Townships will receive approximately \$25,000-\$30,000 annually over 35 years. In addition, lease and purchase payments paid to the landowners will offset potential financial losses associated with removing a portion of their land from agricultural production.¹⁵⁰

142. The Project will create approximately 350-400 jobs during the construction and installation phases, and up to 21 indirect and 2 full time permanent jobs during the

¹⁴⁶ See Ex. 100 at 21 (CN Application).

¹⁴⁷ *Id.* at 21-22.

¹⁴⁸ *Id.* at 48-49.

¹⁴⁹ See Ex. 201 at 53 (EA).

¹⁵⁰ Ex. 101 at 17 (SP Application).

operations phase. Temporary construction jobs within Mower County will generate indirect economic benefits as employees spend their income on local goods and services and pay local sales tax. As an operating facility, Louise Solar will annually generate \$2.7 million in economic output by supporting approximately 21 indirect jobs and distributing nearly \$2 million in direct earnings.¹⁵¹

143. The Applicant also demonstrated that the Project would impose minimal environmental impacts, especially as compared to a fossil-fuel based facility. The Project will not release carbon dioxide, sulfur dioxide, nitrogen oxides, mercury, or particulate matter. It will not require water for power generation and will not discharge wastewater containing any heat or chemicals during operation. It will produce energy without the extraction, processing, transportation, or combustion of fossil fuels. The Project has been designed to minimize environmental impacts.¹⁵²

144. The EA states that the Project would create human and environmental impacts similar to or less than other large solar and renewable projects located in Minnesota.¹⁵³ It also states that the impacts to farmland and soil during construction of the Project will be minimal and temporary, and that the change in land use would take productive farmland out of production but would result in a negligible loss of farmland in Mower County.¹⁵⁴ Overall, EERA did not find any significant environmental impacts as a result of the Project. No commenters spoke or submitted comments opposing the Project.

145. Thus, the Applicant has satisfied Minn. R. 7849.0120(B)(3).

4. The Expected Reliability of the Proposed Facility Compared to the Expected Reliability of Reasonable Alternatives

146. Minn. R. 7849.0120(B)(4) requires consideration of “the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives.”

147. This sub-factor relates, in part, to Minn. Stat. § 216B.243, subd. 3(9), which requires consideration of “the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota.”

148. Solar is a proven and reliable resource. Louise Solar estimates that the Project facilities will be available approximately 99 percent of the year, which is consistent with industry standards.¹⁵⁵

149. Thus, the Applicant has satisfied Minn. R. 7849.0120(B)(4).

¹⁵¹ *Id.*

¹⁵² *Id.* at 21.

¹⁵³ See Ex. 201 at 25-26 (EA).

¹⁵⁴ See *id.* at 59.

¹⁵⁵ Ex. 100 at 37 (CN Application).

5. Conclusion Regarding Minnesota Rule 7849.0120(B)

150. As discussed above, the Applicant has satisfied each of the four sub-factors of Minn. R. 7849.0120(B).

151. No other party submitted a more reasonable and prudent alternative to the proposed Project that satisfies the requirements of Minn. R. 7849.0110 and 7849.0120.

C. By a Preponderance of Evidence on the Record, the Proposed Facility, or a Suitable Modification of the Facility, Will Provide Benefits to Society in a Manner Compatible With Protecting the Natural and Socioeconomic Environments, Including Human Health.

152. Minn. R. 7849.0120(C) requires that “by a preponderance of evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health.”

1. The Relationship of the Proposed Facility, or Suitable Modification Thereof, to Overall State Energy Needs

153. Minn. R. 7849.0120(C)(1) requires consideration of “the relationship of the Project, or a suitable modification thereof, to overall state energy needs.”

154. As DER noted, the proposed Project could help Minnesota meet its energy needs while supporting the state’s renewable energy and greenhouse gas emissions-reduction goals (see Minn. Stat. §§ 216B.1691 and 216H.02). Therefore, the proposed Project fits the state’s overall energy needs.¹⁵⁶

155. As set forth above, states, utilities, and commercial and industrial (C&I) customers continue to require renewable energy to meet renewable and other clean energy standards, their own clean energy goals, as well as consumer demand.

2. The Effects of the Proposed Facility, or a Suitable Modification Thereof, Upon the Natural and Socioeconomic Environments Compared to the Effects of Not Building the Facility

156. Minn. R. 7849.0120(C)(2) requires consideration of “the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility.”

157. While not building the Project would avoid some human and environmental impacts, not building the Project would also not provide an additional source of tax revenues to the county, an increase in the income stream to residents and businesses, or an increase in the amount of low-cost, clean, reliable renewable energy available to

¹⁵⁶ See DER Comments (Oct. 25, 2021) (eDocket No. 202110-179134-01).

state or regional utilities and their customers.¹⁵⁷ Not building the facility would result in no increase in renewable energy and, in turn, no opportunity for utilities to purchase the Project's output to satisfy clean energy standards.¹⁵⁸

3. The Effects of the Proposed Facility, or a Suitable Modification Thereof, in Inducing Future Development

158. Minn. R. 7849.0120(C)(3) requires consideration of “the effects of the proposed facility, or a suitable modification thereof, in inducing future development.”

159. The Project is not expected to directly affect development in Mower County or hinder future development that can otherwise occur in surrounding agricultural areas. The Project is designed to be socioeconomically beneficial to landowners, local governments, and communities. Landowner compensation is established by voluntary leases or purchase agreements between the landowner and Louise Solar for Louise Solar's lease or purchase of the land. Solar energy infrastructure will also provide an additional source of revenue to the townships and county in which the Project is sited. The Project is estimated to provide annual production tax revenues to Mower County of approximately \$105,000-\$115,000 annually over 35 years or longer. Additionally, Lodi and Adams Townships will receive approximately \$25,000-\$30,000 annually over 35 years. In addition, lease and purchase payments paid to the landowners will offset potential financial losses associated with removing a portion of their land from agricultural production. At the same time, the increase in renewable energy will help to lessen wholesale energy market volatility.¹⁵⁹

4. The Socially Beneficial Uses of the Output of the Proposed Facility, or a Suitable Modification Thereof, Including Its Uses to Protect or Enhance Environmental Quality

160. Minn. R. 7849.0120(C)(4) requires consideration of “the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality.”

161. This sub-factor relates to Minn. Stat. § 216B.243, subd. 3(5), which, in relevant part, requires the Commission to consider “the benefits of this facility, including its uses to protect or enhance environmental quality....”

162. Applicant showed that the Project will produce renewable energy to meet energy demands and renewable and other clean energy standards. The Project is expected to produce emissions free energy to meet the energy needs of consumers in Minnesota and neighboring states. As discussed above, the Project is designed to be socioeconomically beneficial to landowners, local governments, and communities

¹⁵⁷ Ex. 100 at 37 (CN Application).

¹⁵⁸ *Id.* at 35.

¹⁵⁹ *Id.* at 16-17.

through landowner lease and/or purchase payments, job creation, production taxes, and local spending.

163. Thus, the Applicant has satisfied Minn. R. 7849.0120(C)(4).

D. The Record Does Not Demonstrate That the Design, Construction, or Operation of the Proposed Facility, or a Suitable Modification of the Facility, Will Fail to Comply With Relevant Policies, Rules, and Regulations of Other State and Federal Agencies and Local Governments.

164. Minn. R. 7849.0120(D) requires that “the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.”

165. This factor relates to Minn. Stat. § 216B.243, subd. 3(7), which requires the Commission, in assessing need, to consider “the policies, rules, and regulations of other state and federal agencies and local governments.”

166. The Project, as refined or modified by the site permit, will meet or exceed the requirements of all applicable federal, state, and local environmental laws and regulations.¹⁶⁰ The Applicant states that it will secure all necessary permits and authorizations prior to commencing construction on the portions of the Project requiring such approvals.¹⁶¹

167. Based on the foregoing, the Applicant has satisfied Minn. R. 7849.0120(D).

E. Conclusion on Minnesota Rule 7849.0120 Criteria

168. As discussed in detail above, the Applicant has satisfied each of the relevant factors and sub-factors set forth in Minn. R. 7849.0120(A) through (D) necessary to determine that a Certificate of Need must be granted.

SITE PERMIT

I. SITE PERMIT CRITERIA

169. 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.”

¹⁶⁰ *Id.* at 27; see also DER Comments at 14 (Oct. 25, 2021) (eDocket No. 202110-179134-01).

¹⁶¹ Ex. 100 at 27, 61 (CN Application).

170. On August 4, 2020, Louise Solar submitted information to the Minnesota Department of Commerce requesting a size determination for the Project. On September 10, 2020, EERA informed Louise Solar 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.¹⁶²

171. An LEPGP powered by solar energy is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04. Louise Solar filed the SP Application under the process established by the Commission in Minn. R. parts 7850.2800-7850.3900.¹⁶³

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

173. EERA Staff is responsible for evaluating the SP application and administering the EA process.

II. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT

A. Human Settlement

174. With a population of 39,163 persons, Mower County represents less than one percent of the total population of Minnesota.¹⁶⁴

175. The construction of the Project will not displace residents or change the demographics of the Project Area.¹⁶⁵

¹⁶² Ex. 101 at 1, 11 (SP Application).

¹⁶³ See Notice of Intent to Submit SPA Under Alternative Process (Dec. 10, 2020) (eDocket No. 202012-168926-01).

¹⁶⁴ Ex. 101 at 48 (SP Application).

¹⁶⁵ *Id.* at 38.

1. Zoning and Land Use

176. The Project Area is zoned as agricultural.¹⁶⁶ The Mower County Zoning Ordinance states that solar farms (exceeding 1 MW nameplate capacity) are allowed in the Agricultural district upon approval of a conditional use permit (CUP). Mower County Zoning Ordinance Section 14-51 states that transmission lines exceeding 35 kV must acquire a CUP prior to construction. Per the Mower County Ordinance, the Project uses are compatible with local land use regulations for solar energy facilities and transmission lines. The County has determined that these types of land uses are acceptable in the Agricultural Zoning District upon approval of a CUP.¹⁶⁷

177. The Mower County Zoning Ordinance applies to solar energy systems that are not otherwise subject to siting and oversight by the State of Minnesota under the Minnesota Power Plant Siting Act (Minn. Stat. § 216E). Pursuant to Minn. Stat. § 216E.10, subd. 1, the Site Permit from the Commission is the only site approval required for construction of the Project. A Site Permit supersedes and preempts all zoning, building, or land use rules, regulations, or ordinances put in place by regional, county, local and special purpose governments, although the review by the Commission will take local land use into consideration.¹⁶⁸ Louise Solar has applied county standards to the Project where feasible.¹⁶⁹ For example, Mower County staff requested a setback of 50 feet from the state trail located directly north of the Project Area, which has been incorporated into the Project design. In addition, Louise Solar, in coordination with Mower County, excluded lands within 0.5-mile of the City of Adams border to avoid future urban expansion areas.¹⁷⁰

178. Louise Solar will pursue a CUP from Mower County for the short transmission line prior to construction.¹⁷¹

179. Public conservation and recreation lands include lands administered by federal, state, or local agencies, or conservation easements. There are no public

¹⁶⁶ Note that the EA used different terms/definitions than the SP Application when referring to the Project. Specifically, the EA used the term “land control area” (defined as “the review area for the solar array”), “project area” (defined as “one mile from the land control area and collection line corridor”), and “collection line corridor” (defined as “the review area for the collection line, project substation, and gen-tie transmission line”). The SP Application used the terms “Preliminary Development Area” (defined as “[a]pproximate 325-acre area where Louise Solar Project, LLC proposes to build the Louise Solar Project facilities”), and “Project Area” (defined as “[a]pproximately 613-acre area of privately-owned land for which Louise Solar Project, LLC has leases and purchase options to allow siting and construction of the Project”). For purposes of these Findings of Fact, Conclusions of Law, and Recommendations, references from the EA to the “land control area” have been replaced with the term “Project Area” (with the meaning designated in the SP Application). References from the EA to “project area” have been replaced with “EA Project Area”, which means “one mile from the land control area [‘Project Area’] and collection line corridor”).

¹⁶⁷ Ex. 101 at 10 (SP Application); Ex. 201 at 46 (EA).

¹⁶⁸ Ex. 101 at 55 (SP Application); Ex. 201 at 46 (EA).

¹⁶⁹ Ex. 101 at 55 (SP Application); Ex. 201 at 46 (EA).

¹⁷⁰ Ex. 101 at 55 (SP Application).

¹⁷¹ *Id.* at 10; Supplemental Information to the EA (Oct. 22, 2021) (eDocket No. 202110-179063-02).

conservation or recreation lands in the Project Area or within one mile of the Project Area.¹⁷²

180. Development of the Project would result in the change of land use from a generally agricultural use to a solar energy use for at least the life of the Project. The conversion of agricultural land to the solar facility will have a relatively minimal impact on the rural character of the surrounding area or Mower County.¹⁷³ Upon decommissioning and removal of the Project, the affected parcels may be returned to the existing agricultural use or transitioned to other planned land uses.¹⁷⁴

181. Of the 455,680 acres in Mower County, the majority is classified as agricultural land. Impacts to 325 or less acres of agricultural land within the solar facility and transmission line footprint would reduce the amount of agricultural land in the county by less than one percent.¹⁷⁵

182. The Project has been designed in compliance with the Mower County Comprehensive Plan (2002), and does not propose infrastructure or other construction activities in areas noted as Urban Service Management Areas or other future development areas specified in the Future Land Use Plan. Components of the Project may be located in areas where there is a planned extension of water, sewer, or other services. Construction of the Project would not preclude the future orderly extension of these services across property under Louise Solar's control as these extensions would likely be accomplished by utilizing existing public rights-of-way which will not be impacted by the Project.¹⁷⁶

183. Normal agricultural activities can continue within the EA Project Area not converted to solar panels, access roads, transmission, and fencing. The Project will not preclude current or planned land use on adjacent parcels.¹⁷⁷

2. Property Values

184. 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.¹⁷⁸

185. The installation of the Project would create a limited visual impact at ground level or from adjacent roadways, parcels, and state trails.¹⁷⁹ The short, the 700-1,000-foot transmission line will be visible from a greater distance than the solar array, but the

¹⁷² Ex. 101 at 78 (SP Application).

¹⁷³ *Id.* at 56; Ex. 201 at S-4 (EA).

¹⁷⁴ Ex. 101 at 57 (SP Application); Ex. 201 at S-4 (EA).

¹⁷⁵ Ex. 101 at 56 (SP Application); Ex. 201 at S-4 (EA).

¹⁷⁶ Ex. 101 at 57 (SP Application); Ex. 201 at 47 (EA).

¹⁷⁷ Ex. 201 at 47 (EA).

¹⁷⁸ *See id.* at 49.

¹⁷⁹ *Id.* at 44-45.

change is likely to be barely perceptible given its short length and proximity to the Adams Substation and other existing transmission lines.¹⁸⁰

186. The Project is not expected to have emissions during operation of the facilities.¹⁸¹ Noise levels during operation of the Project are anticipated to be negligible.¹⁸²

187. Widespread negative impacts to property value as a result of the Project are not anticipated. While it is possible that specific, individual property values may be negatively impacted, such impacts can be mitigated by reducing aesthetic impacts, encumbrances to future land use, and through individual agreements with neighboring landowners.¹⁸³

188. The public hearings and comments did not indicate significant concern from local property owners about the impact of the Project on property values.

3. Aesthetic Impacts

189. The existing landscape in the EA Project Area is generally flat and agricultural.¹⁸⁴

190. There are no residences or businesses within the Project boundary. However, the EA Project Area is surrounded by farmsteads with residences and outbuildings. Most of these farmsteads are at least partially surrounded by woodlands or shelterbelts, which fractionally prevent uninterrupted views of the surrounding landscape.¹⁸⁵ State Highway 56 bisects the northern and southern portions of the Project. There are multiple transmission lines within or adjacent to the EA Project Area that interrupt natural agricultural views. At least six transmission lines extend south of the Adams Substation with even more to the north. Additional transmission lines run east and west just south of the EA Project Area, with other lines transecting the northern portion of the EA Project Area. Views in the area are also interrupted by Trunk Highway 56, located between the northern and southern portions of the Project, and other county and township roadways. There are also wind turbines at several operating wind farms.¹⁸⁶

191. Locations where visual impacts will be the greatest are adjacent to residences and along public roadways and trails. There are no residences or businesses within the Project boundary; however, there are eleven residences and several agricultural buildings on parcels adjacent to the Project. The solar arrays will be visible from adjacent roadways, parcels, and a state trail. Impacts are unavoidable but can be mitigated in part by vegetative screening.¹⁸⁷

¹⁸⁰ Ex. 101 at 44 (SP Application).

¹⁸¹ Ex. 201 at 63 (EA).

¹⁸² *Id.* at 48.

¹⁸³ *Id.* at 49-50.

¹⁸⁴ *Id.* at 40.

¹⁸⁵ *Id.*

¹⁸⁶ *Id.* at 40, 44.

¹⁸⁷ *Id.* at 44.

192. Operational lighting will be required at gates and perimeter areas as necessary for safety and security. If practicable, lighting will be motion-activated and downlit to minimize impacts and effects. Impacts to light-sensitive land uses are not anticipated given the rural location coupled with minimal required lighting for operations.¹⁸⁸

193. The public hearings and comments did not indicate concern from local property owners about the impact of the Project on aesthetics.

194. Section 4.3.7 of the Draft Site Permit requires the Applicant to consider visual impacts from landowners and land management agencies. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and operation.¹⁸⁹

4. Public Service and Infrastructure

195. Access to the Project will be via existing township, county, or state roads. The major roadway in the area is State Highway 56, which bisects the proposed Project. Other roads that surround the EA Project Area are local county or township roads. The Project is bordered on the north by 150th Street and 690th Avenue to the west.¹⁹⁰

196. As is typical in rural areas in this part of the state, the EA Project Area is not serviced by city water supply or sanitary sewer. There are no wells within the Project boundary. There are numerous distribution lines and high voltage transmission lines throughout the local vicinity. A natural gas pipeline is located immediately southwest of the EA Project Area. Another gas line runs east to west through the northern portion of the Project.¹⁹¹

197. During construction, temporary impacts are anticipated on some public roads. Construction activities will increase the amount of traffic using local roadways, and such use might result in congestion which would be noticeable to neighboring landowners. Operation of the Project after construction will not noticeably increase traffic. No impacts to roads are anticipated during the operation; negligible traffic increases would occur for maintenance. The impact intensity level will be minimal. Potential traffic impacts associated with construction are anticipated to be short-term, intermittent, and localized.¹⁹²

198. There will be several access points to the Project. The northern units of the Project will be accessed from 150th Street and 690th Avenue, and the Applicant will likely seek driveway access from State Highway 56. Access from State Highway 56 is not currently being contemplated for the southern portions of the Project; access to the

¹⁸⁸ *Id.* at 45.

¹⁸⁹ *Id.*; see also Sample Site Permit, included with Briefing Papers – April 8, 2021 Agenda (Sample Site Permit) (Mar. 31, 2021) (eDocket No. 20213-172442-02).

¹⁹⁰ Ex. 201 at 56 (EA).

¹⁹¹ *Id.* at 57.

¹⁹² *Id.* at 56-57.

southern arrays will likely be from 140th and 680th Streets. Louise Solar may utilize the existing driveway to the ITC Adams substation (from State Highway 56) for access to the Project substation.¹⁹³

199. Louise Solar will coordinate with Gopher State One Call before and during construction to avoid impacts to pipelines and other underground utilities. Louise Solar will also conduct an American Land Title Association survey to identify underground utilities. Final design will minimize and avoid impacts to underground and overhead utilities; if conflicts are unavoidable, Louise Solar will coordinate with the utility to develop an approach to protect the utility. Underground utilities will be marked prior to construction start.¹⁹⁴

200. Limited, temporary impacts to service may occur during interconnection of the Project substation via the short 161 kV transmission line to the Adams Substation. These outages are anticipated to be of short duration and closely coordinated with utilities and landowners.¹⁹⁵

201. There is one Federal Aviation Administration (FAA) registered airport located within three nautical miles of the Project boundary. Gilgenbach's Private Airport is located 2.25 miles south of the Project and operates one turf runway. The Project will not impact this airport; therefore, no mitigation is proposed.¹⁹⁶

202. Section 4.3.16 of the draft site permit addresses roads.¹⁹⁷ Section 4.3.16 of the Draft Site Permit requires the Applicant to inform road authorities of roads that will be used during construction and acquire necessary permits and approvals for oversize and overweight loads. Section 4.3.4 of the Draft Site Permit also requires the Applicant to minimize disruption to public services and public utilities and to restore service promptly if disrupted by the Applicant.

5. Recreational Resources

203. Recreational opportunities in Mower County primarily include softball, hiking, camping, hunting, bicycling, snowmobiling, golfing, and fishing, and opportunities to explore museums, parks, nature centers, numerous landmarks, and caves.¹⁹⁸

204. There are no designated public (federal, state, or local) recreational lands within the Project Area boundaries. According to the MDNR Recreational Compass, there are no state forests, national forests, or national wildlife refuges within close proximity to the Project boundaries. Additionally, there are no state-owned Off-Highway Vehicle trails

¹⁹³ *Id.* at 56.

¹⁹⁴ *Id.* at 57.

¹⁹⁵ *Id.* at 58.

¹⁹⁶ *Id.* at 42.

¹⁹⁷ *Id.* at 57.

¹⁹⁸ Ex. 101 at 51 (SP Application).

and no MDNR Scientific & Natural Areas identified within a mile of the Project boundaries. Also, no lakes with public access are located in the Project Area.¹⁹⁹

205. The Project is within 35 feet of the Shooting Star State trail. The trail is located on an old railroad right-of-way, and provides biking, running, and walking opportunities. The trail is paved between LeRoy and Austin. A portion of nearby snowmobile track 176 is located about 0.5 miles from the Project boundary. State Highway 56 is a designated State Scenic Byway and was one of the first wildflower routes in the state. It is 31 miles long and located between I-90 and Highway 63 near the Iowa border.²⁰⁰ Impacts will occur and may temporarily interrupt recreational activities on the Shooting Star State Trail while deliveries are made to the southern portion of the site at the intersection of Highway 56 and 680th Avenue. If trail use is interrupted, it is anticipated to be temporary and short in duration. Louise Solar will coordinate with MDNR staff if the trail is closed for any length of time.²⁰¹ While this standard is not specific, Section 5.7 of the Site Permit requires Louise Solar to coordinate closures or other impacts prior 30 days prior to the preconstruction meeting.²⁰²

206. No significant impacts to recreational opportunities are anticipated.²⁰³

207. MDNR commented that its inspection of the shapefiles indicate that the project fence is approximately 35 feet from the trail, not 108 feet, and that a collector line is proposed to run across the trail. MDNR is concerned that construction of the collector line could disrupt recreational activities on the trail as well as cause damage to the trail, and that its continued presence could pose a safety hazard for recreational trail users and requests additional mitigation measures.²⁰⁴

208. Louise Solar's reply comments do not address the discrepancy between the 108-foot distance described by the applicant and the 35-foot distance found during MDNR's review of the shapefiles.²⁰⁵ However, Louise Solar stated that "the collection line will be bored under the Shooting Star State Trail. Accordingly, no construction-related impacts or operational impacts to trail use are anticipated."²⁰⁶ Section 5.7 of the Draft Site Permit adequately addresses concerns about the Shooting Star Trail. The Draft Site Permit states:

The permittee shall coordinate with the DNR to identify mitigation strategies to the Shooting Star Trail, including but not limited to detours, closures, or other impacts associated with construction of the project. Results of the coordination shall be submitted to the

¹⁹⁹ *Id.*

²⁰⁰ Ex. 201 at 50 (EA).

²⁰¹ *Id.* at 50-51 (EA).

²⁰² Draft Site Permit (Nov. 9, 2021) (eDocket No. 202111-179620-06).

²⁰³ Ex. 201 at 51 (EA).

²⁰⁴ See MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

²⁰⁵ Ex. 101 at 51; Ex. 201 at 50; MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

²⁰⁶ See Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

Commission 30 days prior to the preconstruction meeting and be included in the site plan pursuant to section 8.3.

B. Public Health and Safety

209. 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. Magnetic fields arise from the flow of electricity or current that travels along transmission lines, power collection lines, substation transformers, house wiring, and electrical appliances.²⁰⁷

210. The primary sources of EMF from the Project will be from buried electrical collection lines, the high voltage transmission line (gen-tie transmission line) and from the transformers installed at each inverter. EMF from electrical collection lines, transmission lines, and transformers dissipates rapidly with distance from the source. The internationally accepted guideline for general public exposure to electric fields is 4.2 kV/m and 833 milliGauss (mG) for magnetic fields.²⁰⁸

211. The Project includes a 700-1,000-foot long 161 kV overhead gen-tie transmission line running from the Project substation to the Adams Substation. Several evaluations have concluded that transmission lines of a similar voltage are unlikely to have EMF impacts.²⁰⁹ The EMF levels generated by the proposed Project 161 kV transmission line are anticipated to be well below the internationally accepted guideline for general public exposure.²¹⁰

212. 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.²¹¹

213. The Project substation, collection line, and transmission line will be designed and constructed in compliance with applicable electric codes. Electrical inspections will ensure proper installation of all components, and the Project will undergo routine electrical inspection.²¹²

214. There are two types of stray voltage: induced voltage and neutral-to-earth voltage. Induced voltage is associated with an electric field extending from a transmission line to nearby conductive objects. Neutral-to-earth voltage is a type of stray voltage that can occur where distribution lines enter structures causing extraneous voltage to appear on metal surfaces in buildings, barns, and other structures. The Project will not result in the construction of large transmission lines; interconnect to businesses, farms, or residences; or change local electrical service. Stray voltage impacts are not expected.²¹³

²⁰⁷ See Ex. 201 at 52-54 (EA).

²⁰⁸ *Id.* at 54.

²⁰⁹ *Id.*

²¹⁰ *Id.* at 55.

²¹¹ *Id.*

²¹² *Id.*

²¹³ *Id.* at 43.

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

216. The Draft Site Permit contains conditions to address public safety. For example, Section 4.3.23 of the Draft Site Permit addresses public safety, including landowner educational materials, appropriate signs and gates, etc. Section 8.10 requires permittees file an emergency response plan with the Commission prior to operation. Section 8.11 requires disclosure of extraordinary events, such as fires, etc.²¹⁴

C. Land-based Economies

1. Local Economy

217. The Project will result in both short- and long-term benefits to the local economy.

218. Landowner compensation is established by voluntary leases or purchase agreements between the landowners and the Applicant's lease or purchase of the land.²¹⁵

219. The Applicant anticipates the Project to generate around \$125,000 of property tax annually. It is also expected to support 350-400 jobs during the construction and installation phases, and up to 21 indirect and 2 full time permanent jobs during the operations phase. Indirect economic benefits will occur from additional local spending on goods and services and local sales tax. Adverse impacts associated with the loss of agricultural land and agricultural production will be mitigated through lease payments to landowners.²¹⁶

220. Wages will be paid, and expenditures will be made to local businesses and landowners during the Project's construction and operation. Construction of the Project would provide temporary increases to the revenue of the area through increased demand for lodging, food services, fuel, transportation, and general supplies. The Project will also create new local job opportunities for various trade professionals that live and work in the area, and it is typical to advertise locally to fill required construction positions. Opportunity exists for sub-contracting to local contractors for gravel, fill, and civil work. Additional personal income will also be generated by circulation and recirculation of dollars paid out by the Project as business expenditures and state and local taxes.²¹⁷

221. The Project will provide production tax payments to Mower County of approximately \$105,000-\$115,000 annually over 35 years or longer. Additionally, Adams and Lodi Townships will receive approximately \$25,000-\$30,000 annually over 35 years. In addition, lease and purchase payments paid to the landowners will offset potential

²¹⁴ *Id.* at 56.

²¹⁵ Ex. 101 at 49 (SP Application).

²¹⁶ Ex. 201 at 51 (EA).

²¹⁷ *Id.* at 52; Ex. 101 at 49-50 (SP Application).

financial losses associated with removing a portion of their land from agricultural production.²¹⁸

222. Socioeconomic impacts are anticipated to be positive. Section 8.5 of the Draft Site Permit requires quarterly reports concerning efforts to hire Minnesota workers. Section 9 addresses Project decommissioning, specifically requiring the permittee to file a decommissioning plan with the Commission prior to operation, establishing the permittee as the responsible party for carrying out decommissioning tasks, setting out minimum standards for restoration and timelines, and addressing abandoned solar installations.²¹⁹

2. Agriculture

223. The majority of the Project Area is in agricultural use, comprising 590.1 acres (96.2 percent). The remainder of the Project Area consists of developed land (2.3 percent) and a small amount of herbaceous or hay/pasture land (1.2 percent). The remaining identified land uses include deciduous forest, emergent herbaceous wetlands, barren land, and open water. In total, the remaining land uses comprise a minor 0.3 percent of the Project Area.²²⁰

224. The Project will result in up to 325 acres of farmland being removed from agricultural production for the life of the Project. Impacts to 325 or less acres of agricultural land within the solar facility and transmission line footprint would reduce the amount of agricultural land in Mower County by less than one percent. This change in land use would take productive farmland out of production but would result in a negligible loss of farmland in Mower County. The Applicant indicates that the land could be returned to agricultural uses after the Project is decommissioned and the site is restored.²²¹

225. Normal agricultural activities can continue within portions of the Project Area not converted to solar panels, access roads, transmission, and fencing. After the useful life of the Project, the current agricultural land use could be restored by removing the solar panels, short transmission line and associated facilities.²²²

226. The presence of the Project will not result in a significant impact to land-based economies in the Project vicinity, as impacts to 325 or less acres of agricultural land within the solar facility and transmission line footprint would reduce the amount of agricultural land in Mower County by less than one percent.²²³

²¹⁸ Ex. 101 at 50 (SP Application); Ex. 201 at 52 (EA).

²¹⁹ Ex. 201 at 53 (EA).

²²⁰ Ex. 101 at 55-56 (SP Application).

²²¹ Ex. 201 at S-4, 59 (EA).

²²² Ex. 101 at 57 (SP Application).

²²³ Ex. 201 at S-4, 59 (EA).

3. Prime Farmland

227. Prime Farmland as defined by Federal regulation at 7 C.F.R. 657.5(a)(1) “is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses.”²²⁴

228. Subject to certain exceptions, Minn. R. 7850.4400, subp. 4, prohibits large energy power generating plants from being sited on more than 0.5-acre of prime farmland per MW of net generating capacity unless there is no feasible and prudent alternative.

229. Given the 50 MW net generating capacity of the Project, Minn. R. 7850.4400, subp. 4 would allow up to 25 acres of prime farmland for the Project unless there is no feasible and prudent alternative.²²⁵

230. Approximately 149.2 acres of prime farmland and 165.1 acres of prime farmland if drained are located within the Preliminary Development Area.²²⁶

231. Louise Solar explored Mower County for a solar project based on the high solar resource in the southeastern portion of Minnesota and lower expected interconnection costs and transmission congestion.²²⁷

232. Louise Solar conducted a screening analysis to assess whether the Project meets the “feasible and prudent alternative” threshold. The analysis looked at factors such as high solar resource areas, interconnect locations, and open farmland, focusing on the southern portion of the state. Within this area, Louise Solar screened for substations and transmission lines with available capacity, leading to a relatively narrow subset of possible points of interconnection (POI) with low or no network upgrade requirements. Financial constraints further focused on potential locations within three miles of the identified POIs which had to meet the following criteria: “cleared and otherwise undeveloped, not currently encumbered by other easements (wind farms, etc.), contained minimal wetlands, streams, transmission lines, pipelines, roads, or other obstacles that would limit the buildable land or lead to irregularly shaped development areas.” Once potential sites were identified, the Applicant approached landowners for voluntary leases and easements. The Project site was selected due to its proximity to the POI, supportive landowners, and no competition with other potential renewable energy projects in the area. There are several wind developments in this area, which limits siting options while remaining close to the Adams Substation.²²⁸

233. Three POIs made it through the screening exercise: the Adams Substation POI, Huntley POI, and Renville POI. In Mower County, 95.6 percent of the farmland is

²²⁴ *Id.* at 58-59.

²²⁵ Ex. 101 at 11 (SP Application).

²²⁶ *Id.* at 59; Ex. 201 at 59 (EA). Note that Table 11 (Prime Farmland Classifications within the Project Boundary) in the EA states that it provides the “Percent of Project Area”, but, as shown in the corresponding Table 19 from the SP Application, these calculations show the percent in the Preliminary Development Area, not the Project Area. See Ex. 101 at 59 (SP Application).

²²⁷ *Id.* at 13-14.

²²⁸ Ex. 201 at 60 (EA); see also Ex. 106 (Comments).

classified as prime farmland. Louise Solar also calculated the percentages of prime farmland within a five-mile radius of the three POIs. The Renville POI had the highest percentage of prime farmland within a five-mile radius. While the percentage of prime farmland within five miles of the Huntley POI is lower than the other two POIs, the non-prime farmland areas within five miles of the Huntley POI are closely associated with the Blue Earth River. Additionally, the slopes and woodlands in those areas make the area unsuitable for a solar facility. Accordingly, the Huntley POI and Renville POI do not provide feasible and prudent non-prime farmland alternatives. In addition to having a lower percentage of prime farmland within a five-mile radius than the Renville POI, Louise Solar identified the Adams Substation POI as having available capacity, low interconnection costs, and interested landowners.²²⁹

234. The Applicant completed a GIS evaluation of regional prime farmland and farmland of statewide importance to a distance of approximately ten miles surrounding the Adams Substation to address Minn. R. 7850.4400, subp. 4, prime farmland limitations. The selected distance was determined based on transmission line costs and losses, and a reasonable geographic scope for the alternatives analysis. Moving further away from the POI would not result in less impact to prime farmland. In the case of this Project, where the POI is so close to the proposed solar facility, increasing the distance would ultimately result in longer transmission, an enlargement of the Project's overall footprint, a corresponding increase in prime farmland conversion, and increase in Project cost. Prime farmland, and its sub-categories, are mapped throughout Mower County except along larger waterway drainages and wetlands. Accordingly, there is no reasonably sized area in Mower County, or within ten miles of the Adams Substation that could facilitate solar development of approximately 325 contiguous acres not defined as prime farmland.²³⁰

235. No alternatives to Louise Solar's proposed site were presented at the public meeting or during the public comment period.²³¹

236. Therefore, there is no feasible and prudent alternative available to Louise Solar, including near the Adams Substation or otherwise in Mower 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 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.²³²

²²⁹ Ex. 106 (Comments).

²³⁰ Ex. 101 at 14-15 (SP Application).

²³¹ Ex. 201 at 1 (EA).

²³² Ex. 101 at 16 (SP Application); *see also In re the Site Permit Application for the 100 MW Aurora Distributed Solar Energy Project*, MPUC Docket No. E-6928/GS-14-515, Order Issuing Site Permit, As Amended (June 30, 2015); *In re the Application of Marshall Solar, LLC for a Site Permit for the Marshall Solar Energy Project*, MPUC Docket No. IP-6964/GS-14-1052, Order Issuing Site Permit (May 5, 2016); *In re the Application of Elk Creek Solar, LLC for a Site Permit for the up to 80- Megawatt Elk Creek Solar Project*, MPUC Docket No. IP-7009/GS-19-495, Order Adopting Findings of Fact, Conclusions of Law, and Recommendations, Granting Certificate of Need, and Issuing Site Permit (Dec. 31, 2020).

D. Archaeological and Historic Resources

237. A Phase I archaeological survey of the Project Area, including the short transmission line route, was completed in October 2020, and no archaeological sites were identified.²³³ Three previously recorded archaeological sites are within one mile of the Project Area, none of which are within the Project Area boundaries. Eighteen historic/architectural resources have been previously inventoried within one mile, but outside of the Project Area. Trunk Highway 56 bisects the Project boundary and one-mile buffer. The First National Bank of Adams (MW-ADA-001), located within the buffer, is listed in the National Register of Historic Places (NRHP). Built in 1924, it was designed by the noted Prairie School architects Purcell & Elmslie. The remaining resources, including businesses and houses in the City of Adams, and rural bridges within the buffer, have either not been evaluated for NRHP eligibility or the State Historic Preservation Officer (SHPO) inventory forms could not be located.²³⁴

238. Louise Solar also contacted the eleven Minnesota Tribal Nations' Tribal Historic Preservation Officers and the Minnesota Indian Affairs Council for additional information or comment on the Project. Prior to construction, Louise Solar will prepare an Unanticipated Discoveries Plan outlining steps to be taken if previously unrecorded cultural resources or human remains are encountered during construction.²³⁵

239. In response to tribal outreach efforts, the Cultural Director of the Shakopee Mdewakanton Sioux Community requests notification of an inadvertent discovery and project updates.²³⁶ Section 5.1 of the Draft Site Permit addresses special permit conditions regarding on-going tribal coordination.

240. No previously recorded archaeological or historic sites will be directly impacted by the proposed Project.²³⁷

241. Section 4.3.14 of the sample permit addresses archeological and historic resources. If previously unidentified archaeological sites are found during construction, the Applicant would be required to stop construction and contact SHPO to determine how best to proceed. Ground disturbing activity will stop and local law enforcement will be notified should human remains be discovered. Because impacts to archeological and historic resources are not anticipated, additional mitigation is not proposed.²³⁸

E. Natural Environment

1. Wildlife

242. Wildlife utilizing the Project Area are common species associated with disturbed habitats and are accustomed to human activities such as agricultural activities

²³³ Ex. 101 at 61 (SP Application).

²³⁴ *Id.*; Ex. 201 at 62 (EA).

²³⁵ Ex. 201 at 62 (EA).

²³⁶ Ex. 101 at Appendix B.

²³⁷ Ex. 201 at 62 (EA).

²³⁸ *Id.*

and road traffic occurring in the area. Mammals, birds, reptiles, amphibians, and insects are present. These include white-tailed deer, red fox, striped skunk, wild turkey, ring-necked pheasant, sandhill crane, passerines, rodents, and garter and gopher snakes. Due to the lack of water resources in the EA Project Area and vicinity, waterfowl are not common in the area.²³⁹

243. The Project is not anticipated to cause population level impacts to the current wildlife inhabiting the area.²⁴⁰

244. The largest impact to wildlife associated with the Project would be fencing. Studies estimate that one ungulate²⁴¹ per year becomes entangled for every two and one-half miles of fence. Deer can jump many fences, but smooth or barbed-wire can snag animals and tangle legs, especially if wires are loose and spaced too closely together. Predators can use fences to corner and kill prey species. Bird injuries or mortality occurs from fencing due to lack of visibility, and low flying birds such as grouse and owls are also vulnerable to fence collisions.²⁴²

245. In its June 8, 2021, comments, MDNR provided comments and recommendations for security fencing that “would improve safety for wildlife and prevent damage to the facility MDNR Section.”²⁴³ MDNR commented on potential impacts to deer mortality and movement due to fencing. MDNR commented that an eight-foot fence would exclude most deer, but to ensure complete deer exclusion from the solar facility, MDNR recommended ten-foot fencing and deer egress areas.²⁴⁴ In its October 28, 2021, comments, MDNR clarified that its *DNR’s Fencing Handbook for 10 ft Woven Wire Deer Exclusion Fence* is being updated to reflect best practices and specifications, and that ten-foot fencing would nearly eliminate the possibility of deer getting in and would not require egresses.²⁴⁵ MDNR did not provide any data or other evidence indicating deer are likely to be trapped in the fenced area or that any such occurrences are documented at other solar facilities in Minnesota. This latter concern was also raised in a comment made at the Public Hearing in LeRoy, Minnesota.²⁴⁶

246. Louise Solar has stated that it will implement MDNR 2016 guidance of wildlife-friendly fencing by installing either a 6-foot chain-link fence with top guard angled out and upward at 45 degrees with three to four strands of smooth wire (no barbs), or eight-foot chain link for security and safety purposes. At the request of MDNR, barbed wire will not be used around the perimeter of the Project. Louise Solar’s proposed fencing was designed in accordance with MDNR’s 2016 *Guidance for Commercial Solar*

²³⁹ *Id.* at 73.

²⁴⁰ *Id.* at 72-73, 74.

²⁴¹ An ungulate is “a hooved typically herbivorous quadruped mammal (such as a pig, cow, deer, horse, elephant, or rhinoceros).” *Merriam Webster Online Dictionary*, <https://www.merriam-webster.com/dictionary/ungulate> (last visited Dec. 6, 2021).

²⁴² Ex. 201 at 74 (EA).

²⁴³ MDNR Comments (Oct. 27, 2021) (eDocket No.202110-179230-01).

²⁴⁴ MDNR Comments (June 8, 2021) (eDocket No. 20216-174868-01).

²⁴⁵ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

²⁴⁶ See Public Hearing Transcript (Oct. 12, 2021).

*Projects.*²⁴⁷ Louise Solar asserted that a ten-foot fence would cost at least 25 percent more than the fencing currently proposed. Louise Solar also asserted that given balancing concerns related to deer mortality and potential visual impacts it believes its current proposal is most appropriate.²⁴⁸

247. The MDNR is responsible for all wild animals in the state.²⁴⁹ While neither party provided data on deer fatalities in solar facilities, MDNR is presumed to have greater knowledge of what is necessary to protect wildlife than does the applicant. Moreover, the applicant's concern with the cost of a higher fence, while unsupported with specific data on the costs, seems likely to be relatively small when compared to the over 62-million-dollar cost of the Project.²⁵⁰ Also, while Louise Solar raises visual concerns, no member of the public expressed concern about the visual impact of the project. It is possible that injured birds and animals, which MDNR is trying to prevent, would be more distressing to the surrounding community than fence height. Given that these concerns are speculative, the MDNR's expertise should be given deference and 5.5 of the Draft Site Permit should reflect the ten-foot-high fence recommended by MDNR.

248. MDNR commented on the need for a definitive commitment by Louise Solar to use natural fiber materials for erosion control. MDNR noted that the EA such words as 'can' and 'could' in reference to various mitigation practices, strongly implying that there is no guarantee that these practices would be followed during project development (e.g., 'could include the use of natural fiber materials' to avoid plastic erosion-control materials). DNR considers that a more definite commitment to mitigation measures is needed.²⁵¹ Permit Condition 5.4 unequivocally addresses the use of wildlife-friendly erosion control material.²⁵²

2. Vegetation

249. The majority of the land within the Project Area is cultivated agricultural land.²⁵³

250. There is no MDNR-mapped native prairie in the Project Area.²⁵⁴ There are no records of native prairie or native plant communities within with the Project Area.²⁵⁵

251. Forested land within the Project Area is predominately comprised of riparian deciduous woodlands areas along streams and wetlands. There are 11 wetlands and waterways located within the Project Area. Most wetlands that were identified within the

²⁴⁷ See Ex. 101 at 82, 88 (SP Application); Public Hearing Transcript at 24 (Oct. 12, 2021).

²⁴⁸ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

²⁴⁹ Minn. Stat. § 84.0164 (2020).

²⁵⁰ Ex. 100 at 30-31 (CN Application); Ex. 101 at 17 (SP Application).

²⁵¹ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

²⁵² *Id.*

²⁵³ Ex. 101 at 71 (SP Application).

²⁵⁴ *Id.* at 77.

²⁵⁵ *Id.* at 77-78.

Project Area are seasonally-flooded basins (many of which have been farmed). Some of the wetlands were identified as floodplain forest or wet meadow.²⁵⁶

252. Conversion of existing vegetation will be limited as most of the land within the EA Project Area is tilled on an annual basis for row crops. Agricultural land within the solar array area will be seeded with herbaceous vegetation except for the substation, inverter skids, and access roads, which will be converted to developed land and impervious surfaces. The Project will avoid tree clearing to the extent practicable. Low growing native seed mixes developed in cooperation with MDNR will be used to seed the site. Once established, vegetation will be maintained by mowing.²⁵⁷

253. Louise Solar developed a Vegetation Establishment and Management Plan to guide site preparation, installation of prescribed seed mixes, management of invasive species and noxious weeds, and control of erosion/sedimentation.²⁵⁸ Louise Solar revised the VMP following its review of the Vegetation and Establishment Management Plan guidance document and comments received from the Vegetation Management Plan Working Group.²⁵⁹

254. Additionally, Louise Solar developed an Agricultural Impact Mitigation Plan (AIMP) that details methods proposed to minimize soil compaction, preserve topsoil, and establish and maintain appropriate vegetation to ensure the Project is designed, constructed, operated and ultimately restored in a manner that preserves soils to potentially allow the land to be returned to agricultural use in the future.²⁶⁰

255. As set out in the Draft Site Permit Section 3.16, any further revisions to the Vegetation Establishment and Management Plan must be done in coordination with MDNR, BWSR, MDA, MPCA, and the Minnesota Department of Commerce. 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.²⁶¹

256. MDNR submitted comments on the Revised Vegetation Management Plan and noted several areas of concern, including hydric soils and compaction, seed mixes, planting, establishment efforts and the timing of mowing for the protection of habitat.²⁶²

257. The applicant responded that it would consider MDNR's comments in the final design of the Project and the final VMP to be filed prior to commencement of construction.²⁶³

²⁵⁶ *Id.* at 72.

²⁵⁷ Ex. 201 at 71-72 (EA).

²⁵⁸ *Id.* at 72.

²⁵⁹ Louise Solar Comments – Revised Vegetation Management Plan (Oct. 22, 2021) (eDocket Nos. 202110-179032-01, 202110-179032-03, 202110-179032-02, 202110-179032-04).

²⁶⁰ Ex. 201 at 72 (EA).

²⁶¹ *Id.*

²⁶² MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

²⁶³ Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

258. After construction, the Project Area will be graded to natural contours (as possible) and soils will be de-compacted. Disturbed areas will be reseeded with native seed mixes in accordance with the Project's VMP and Stormwater Pollution Prevention Plan (SWPPP). Erosion control measures (e.g., silt fences, hydro-mulch, sediment control logs) will be used until seeded vegetation has established. Additionally, a cover crop will be planted to prevent erosion during the time it takes for native seeds / vegetation to become established.²⁶⁴

259. Sections 4.3.15 and 4.3.13 of the Draft Site Permit address Beneficial Habitat and the Vegetation Management Plan. Seed mixes must be developed and approved in coordination with MDNR and BWSR before submitting the plan 14-days prior to pre-construction. Section 4.3.14 of the Draft Site Permit requires that vegetation clearing be limited to only the extent necessary for construction access and safe operation and maintenance of the Project. Section 4.3.15 requires that site restoration and management practices provide for native perennial vegetation. Section 4.3.16 discusses development of the Vegetation Management Plan, to be prepared in coordination with the Department of Commerce, MDNR, BWSR, and MPCA. Section 4.3.17 addresses application of pesticides and notice to landowners of pesticide application. Section 4.3.18 addresses invasive species and best management practices to avoid the potential introduction and spread of invasive species on lands disturbed by Project construction. Section 4.3.19 requires permittees to take all reasonable precautions against the spread of noxious weeds during all phases of construction.

260. Section 4.3.16 of the Draft Site Permit provides a method for MDNR, and other concerned agencies, to obtain firm commitments from Louise Solar about areas of continuing concern such as seeding and mowing.

3. Soils, Geologic, and Groundwater Resources

261. Approximately 104 acres will be graded, which consists of cutting and filling earth in targeted areas to provide a level and stable base for the solar panels. Primary impacts to soils include compaction from construction equipment, soil profile mixing during grading and pole auguring, rutting from tire traffic, drainage interruptions, and soil erosion.²⁶⁵

262. The type of electrical collection system used will impact soils differently. In all systems, some trenching will be required to bury electrical cables. Impacts are most substantial with the below-ground system due to trenching.²⁶⁶

263. BMPs such as using soil ripping equipment to decompact soils following construction, separating and stockpiling topsoil for later spreading and seeding to prevent topsoil mixing with subsoils, halting construction during wet weather conditions to prevent soil rutting from equipment tires, and avoiding and repairing drain tiles to maintain proper site drainage. Louise Solar will also develop a SWPPP that complies with Minnesota

²⁶⁴ Ex. 201 at 19 (EA).

²⁶⁵ *Id.* at 69.

²⁶⁶ *Id.*

Pollution Control Agency rules and guidelines. Implementation of the protocols outlined in the SWPPP will minimize the potential for soil erosion during construction.²⁶⁷

264. Sections 4.3.8, 4.3.9, 4.3.10, and 4.3.15 of the Draft Site Permit address soil-related impacts: 4.3.8 requires protection and segregation of topsoil; 4.3.9 requires measures to minimize soil compaction; and 4.3.10 requires the permittee to “implement erosion prevention and sediment control practices recommended by the [MPCA]” and to “obtain a Construction Storm Water [CSW Permit].” A CSW Permit requires both temporary and permanent stormwater controls. Section 4.3.3 also requires implementation of reasonable erosion and sediment control measures, contours graded to provide for proper drainage, and all disturbed areas be returned to pre-construction conditions. Section 4.3.8 requires that “site restoration and management” practices enhance “soil water retention and reduces storm water runoff and erosion”.²⁶⁸

265. MPCA submitted comments regarding the Pollutant Discharge Elimination System/State Disposal System General Construction Stormwater Permit (CSW Permit) requirements for sites within one mile of an impaired water.²⁶⁹ At least a portion of the site is within one mile of an unnamed stream that has construction related impairments. Louise Solar indicates it will obtain all of the necessary “downstream” permits necessary to construct and operate the project, including a Stormwater Pollution Prevention Plan. Section 4.3 of the Draft Site Permit states “The Permittee shall comply with the construction practices, operation and maintenance practices, and material specifications described in the *February 11, 2021 Site Permit Application* and the record of the proceedings unless this permit establishes a different requirement in which case this permit shall prevail.” This permit condition addresses MPCA’s concern regarding stormwater permits and additional permit conditions included in downstream permits needed to construct and operate the project.

266. There are no wells located within the Project boundary. If one is discovered that was not mapped on available mapping resources, Louise Solar will assess whether the well is open and cap it, if necessary, in accordance with Minnesota Department of Health requirements.²⁷⁰

267. Impacts to geologic and groundwater resources are not anticipated.²⁷¹

268. Louise Solar developed, and is committed to, an AIMP that details methods to minimize soil compaction, preserve topsoil, and establish and maintain appropriate vegetation to ensure the Project is designed, constructed, operated and ultimately restored in a manner that would preserve soils to allow for the land to be returned to

²⁶⁷ *Id.*

²⁶⁸ *Id.* at 70.

²⁶⁹ MPCA Comments (Oct. 28, 2021) (eDocket Nos. 202110-179265-01, 202110-179265-02).

²⁷⁰ Ex. 201 at 65 (EA).

²⁷¹ *Id.*

agricultural use. The VMP lists best management practices, that while directly related to vegetation, will stabilize soils.²⁷²

4. Surface Water and Wetlands

269. Louise Solar identified surface water and floodplain resources for the Project Area.²⁷³

270. The Project is located in the Cedar River Watershed Basin. A full jurisdictional waters field delineation of the Project Area was conducted the week of November 2, 2020. No rivers or lakes were identified as part of the field delineation. One delineated stream in the northwest portion of the Project Area is associated with an unnamed MDNR Public Watercourse. No other rivers, streams or lakes are mapped within the Project Area.²⁷⁴

271. The majority of the Project is outside the 500-year and 100-year Federal Emergency Management Agency (FEMA) flood zone. A small portion of the Project Area in the northwest corner of the Project boundary is located within the 100-year floodplain. According to FEMA, the risk index for Mower County is relatively low. The Project will not significantly impact FEMA-mapped floodplains and no mitigation is proposed. Solar panels have been sited completely outside of mapped FEMA flood zones.²⁷⁵ Security fencing along the north and northwest boundaries of the Project Area intersect the mapped FEMA floodplain boundary. It is Louise Solar's intent to fully avoid mapped floodplain with security fencing.²⁷⁶

272. Louise Solar conducted a wetland delineation survey within the Project boundary in November 2020. Eleven wetlands were delineated totaling 6.24 acres. The Project is designed to avoid impacts to wetlands. Solar arrays and other Project infrastructure will not be located in wetlands. There may be potential for temporary, short-term impacts to wetlands to occur during installation of the electrical collection lines and temporary access roads. Construction BMPs will be followed, including that include temporary construction mats for work in wetlands, directional bores under wetlands, as necessary, for the installation of electrical collection lines, and other erosion control measures identified in the MPCA Storm Water Best Management Practices Manual.²⁷⁷

273. In comments submitted by the MPCA, the agency notes "due to other waterbodies within the site, including wetlands, existing 50-foot buffers to the waterbodies must be preserved during construction. If that is not possible, then redundant (double) downgradient sediment controls must be utilized. This requirement applies to all surface waters, public or nonpublic." Section 5.2 of the Draft Site Permit addresses this concern.

²⁷² *Id.* at 70.

²⁷³ See Ex. 101 at 68-70 (SP Application).

²⁷⁴ Ex. 201 at 70-71 (EA).

²⁷⁵ *Id.* at 42.

²⁷⁶ Ex. 101 at 70 (SP Application); Ex. 201 at 41-42 (EA).

²⁷⁷ Ex. 201 at 43-44 (EA).

274. The Project will not directly impact surface waters.²⁷⁸

275. MnDOT requests Louise Solar submit storm water runoff calculations, including a summary table, showing that the Louise Solar Project will not be increasing peak runoff rate. The stormwater run-off calculations should be submitted to MnDOT's District 6 Water Resources Engineer for verification.²⁷⁹

276. Section 5.6.2 of the Draft Site Permit requires the permittee to submit storm water calculations to MnDOT's District 6 Water Engineer to verify that the Louise Solar Project will not increase the peak runoff rate to MnDOT right-of-way. Results of the coordination shall be submitted to the Commission 30 days prior to the preconstruction meeting.²⁸⁰

277. Temporary dewatering may be required during construction. Any dewatering required during construction will be discharged to the surrounding surface, thereby allowing it to infiltrate back into the ground to minimize potential impacts. If dewatering is necessary, the Applicant will obtain a Water Appropriation Permit from MNDNR.²⁸¹

278. Section 4.3.12 of the Draft Site Permit addresses impacts to wetlands and other water resources. No additional mitigation is proposed.²⁸² Section 4.3.10 of the Draft Site Permit requires measures to minimize erosion and sedimentation during construction.

5. Air and Water Emissions

279. Temporary short-term air quality impacts would occur during the construction phase of the Project. Once operational, the Project will not generate criteria pollutants or carbon dioxide.²⁸³

280. 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 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).²⁸⁴

281. When necessary, dust from construction traffic will be controlled using standard construction practices such as watering of exposed surfaces, covering of

²⁷⁸ *Id.* at 71.

²⁷⁹ MnDOT Comments (June 9, 2021) (eDocket No. 20216-174922-01).

²⁸⁰ Draft Site Permit at 14-15 (Nov. 9, 2021) (eDocket No. 202111-179620-06).

²⁸¹ Ex. 101 at 68 (SP Application).

²⁸² Ex. 201 at 43-44 (EA).

²⁸³ *Id.* at 63.

²⁸⁴ *Id.*

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.²⁸⁵

6. Solid and Hazardous Wastes

282. MPCA regulates generation, handling, and storage of hazardous wastes.²⁸⁶ The Project is not expected to generate significant quantities of solid waste during operation. The Project may require use of certain petroleum products such as gear box oil, hydraulic fluid, and gear grease. These materials will be stored, recycled, and/or disposed of in accordance with applicable local, State, and Federal regulations.²⁸⁷ A Spill Prevention, Control, and Countermeasure (SPCC) will be required for the main industry standard power transformer. The transformer will be properly contained per Environmental Protection Agency (EPA) requirements.²⁸⁸

283. Section 4.3.24 of the 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 4.3.25 of the Draft site permit requires the permittee to take all appropriate precautions against pollution of the environment and makes the permittee 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.

F. Rare and Unique Natural Resources

284. Louise Solar reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) database for the potential occurrence of federally-listed species, candidate species, or designated critical habitat that may occur within or near the Project Area. Louise Solar also reviewed MDNR's Natural Heritage Information System (NHIS) for documented occurrences of federally- or state-listed species, state Species of Concern, and rare habitats within the Project Area and within one mile of the Project Area.²⁸⁹

285. No rare plant or animal communities have been identified within the Project boundary.²⁹⁰

286. According to the USFWS IPaC, two federally-listed species may occur within or near the Project Area: the federally-threatened northern long-eared bat (NLEB) and prairie bush clover.²⁹¹ There are no documented occurrences of NLEB in the Project boundary or within one mile of the Project.²⁹² NLEB may be present in the EA Project Area

²⁸⁵ *Id.* at 63-64.

²⁸⁶ *Id.* at 11.

²⁸⁷ Ex. 100 at 56 (CN Application).

²⁸⁸ Ex. 101 at 68 (SP Application).

²⁸⁹ *Id.* at 75.

²⁹⁰ Ex. 201 at 66-67 (EA).

²⁹¹ Ex. 101 at 75 (SP Application).

²⁹² Ex. 201 at 66 (EA).

but given the lack of hibernacula and limited tree cover, it is unlikely. The EA Project Area is primarily agricultural land with no remnant prairie or existing prairie habitat.²⁹³ There are no documented occurrences of the Prairie Bush Clover in the Project boundary or within one mile of the Project.²⁹⁴

287. A record of a state-endangered vascular plant, wild quinine, was documented within one mile of the Project Area. These records were confirmed by the MDNR NHIS response.²⁹⁵ There are no documented occurrences within the Project boundary, however it has been documented within one mile of the Project.²⁹⁶ Construction and operation of the Project will not impact wild quinine.²⁹⁷

288. In comments submitted by MDNR, reviewers note “that a strip of native prairie, with an associated state endangered plant species (*Parthenium integrifolium*, wild quinine), exists along State Highway 56. None of the planned work is expected to occur in this strip, but the strip could be adversely affected if construction equipment, supplies, or personal vehicles are stored or move across this area, or if the collection line proposes to cut across the area.”²⁹⁸ In response, Louise Solar will “mark the area during construction.”²⁹⁹ Permit Condition 5.3 addresses this concern.

III. SITE PERMIT CONDITIONS

289. The Draft 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.

290. The record indicates special permit conditions are warranted for this project. Section 5 of the Draft Site Permit addresses special permit conditions. Permit condition 5.1 addresses Unanticipated Discoveries; permit condition 5.2 addresses Waterbody and Wetland Buffers; permit condition 5.3 addresses Endangered Species Habitat; permit condition 5.4 addresses Wildlife Friendly Erosion Control; permit condition 5.5 addresses Security Fencing; permit condition 5.6 addresses MnDOT concerns (5.6.1 Access Roads and 5.6.2 Stormwater Run-Off); permit condition 5.7 addresses the Shooting Star Trail; and permit condition 5.8 addresses the need for an Independent Monitor.

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

²⁹³ *Id.* at 67.

²⁹⁴ *Id.* at 66-67.

²⁹⁵ Ex. 101 at 76 (SP Application).

²⁹⁶ Ex. 201 at 66 (EA).

²⁹⁷ *Id.* at 67.

²⁹⁸ MDNR Comments (Oct. 27, 2021) (eDocket No. 202110-179230-01).

²⁹⁹ See Reply Comments (Applicant) (Nov. 2, 2021) (eDocket No. 202111-179444-01).

CONCLUSIONS OF LAW

1. Any of the forgoing Findings of Fact more properly designated as Conclusions of Law are hereby adopted as such.
2. The Commission and the Administrative Law Judge have jurisdiction over the Certificate of Need and Draft Site Permit applied for by Louise Solar for the up to 50 MW AC proposed Project pursuant to Minn. Stat. §§ 216B.243, 216E.02, and 216E.03.
3. The Commission accepted the Certificate of Need and Draft Site Permit Applications as substantially complete on May 7, 2021.³⁰⁰
4. Louise Solar, EERA, and the Commission provided all notices required under Minnesota Statutes and Rules for a Certificate of Need and Draft Site Permit proceedings.
5. EERA has conducted an appropriate environmental analysis of the Project for purposes of the Certificate of Need and Draft Site Permit proceedings pursuant to Minn. R. 7849.1200 and 7850.3700.
6. Public hearings were held on October 12, 2021 (in person), and October 13, 2021 (remote access). Proper notice of the public hearings was provided, and the public was given an opportunity to speak at the hearings and to submit written comments.
7. Louise Solar and the Commission have substantially complied with the procedural requirements of Minn. Stat. Ch. 216B, Minn. Stat. ch. 216E, and Minn. R. ch. 7829, 7849, and 7850.
8. No party or person has demonstrated by a preponderance of the evidence that there is a more reasonable and prudent alternative to address those needs met by the Project.
9. No conditions on the Certificate of Need are necessary.
10. The Commission has the authority under Minn. Stat. § 216E.03 to place conditions in a LEPGP Draft Site Permit.
11. The Draft Site Permit, with the permit conditions revised as set forth above, contains a number of important mitigation measures and other reasonable conditions.
12. The Draft Site Permit with the permit conditions revised as set forth above includes a number of sample special conditions.

³⁰⁰ Ex. 301 (Order Accepting Applications as Complete, Authorizing Joint Review, and Taking Other Actions).

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

14. The record in this proceeding demonstrates that Louise Solar has satisfied the criteria for a Certificate of Need set forth in Minn. Stat. § 216B.243 and Minn. R. 7849.0120 and all other applicable legal requirements.

15. The record in this proceeding demonstrates that Louise Solar has satisfied the criteria for a Draft Site Permit as set forth in Minn. Stat. § 216E.03 and Minn. R. ch. 7850 and all other applicable legal requirements.

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

17. The Project does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act and/or the Minnesota Environmental Policy Act.

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

RECOMMENDATIONS

1. The Commission should conclude that all relevant statutory and rule criteria necessary to obtain a site permit have been satisfied, and there are no statutory or other requirements that preclude granting a site permit based on the record.

2. The Commission should grant Louise Solar a certificate of need and Draft Site Permit for the Project.

3. The conditions in the Draft Site Permit Template should be incorporated into the final site permit, unless modified herein.

NOTICE

This Report is not an order and no authority is granted herein. The Minnesota Public Utilities Commission will issue the final order of authority in this proceeding, which may adopt or differ from the recommendations in this Report.