

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

**In the Matter of the Application of Xcel
Energy for a Site Permit for the up to 250
MW Sherco 3 Solar Energy Generating
System in Sherburne County, Minnesota**

MPUC Docket No. E-002/GS-23-217

OAH Docket No. 24-2500-39813

**XCEL ENERGY’S
PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND
RECOMMENDATIONS**

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This matter was assigned to Administrative Law Judge Kristien R.E. Butler and involves the Site Permit (MPUC Docket No. 23-217) Application of Northern States Power Company, doing business as Xcel Energy (“Xcel Energy” or “Applicant”) for the up to 250 megawatt (“MW”) Sherco 3 Solar Project in Sherburne County, Minnesota (“Project”).

The Minnesota Public Utilities Commission (“Commission” or “MPUC”) referred this matter to the Office of Administrative Hearings for assignment of an administrative law judge to conduct public hearings. The Administrative Law Judge (“ALJ”) was charged with preparing a summary report of public comments.

The Administrative Law Judge held a public hearing at 11500 Sherburne Avenue, Becker, Minnesota on May 9, 2024, and by video conference and telephone on May 7, 2024. The record remained open for the receipt of written public comments until May 22, 2024.

Jeremy Duehr, Fredrikson & Byron, P.A., 60 South Sixth Street, Suite 1500, Minneapolis, Minnesota 55402, attorneys for Xcel Energy, Peter Gitzen, Manager of Siting and Land Rights, and Ellen Heine, Senior Siting and Permitting Agent, Xcel Energy, 414 Nicollet Mall Minneapolis, MN 55401, appeared on behalf of the Applicant.

Suzanne Steinhauer, Environmental Review Manager, 85 Seventh Place East, Suite 280 Saint Paul, MN 55101, appeared on behalf of the Minnesota Department of Commerce – Energy Environmental Review and Analysis Unit (“DOC-EERA”).

Jacques Harvieux, Commission Staff, 121 Seventh Place East, Suite 350, St. Paul, Minnesota 55101, appeared on behalf of the Commission.

STATEMENT OF ISSUES

Has Applicant satisfied the criteria established in Minn. Stat. Ch. 216E and Minn. R. Ch. 7850 for a site permit for its proposed 250 MW solar energy conversion system in Clear Lake Township and the City of Clear Lake, Minnesota?

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Applicant has satisfied the applicable legal requirements and, accordingly, the Commission grants a site permit for the Project, subject to the conditions and recommendations discussed herein.

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

FINDINGS OF FACT

I. APPLICANT AND PROJECT BACKGROUND

1. The applicant is Northern States Power Company, doing business as Xcel Energy (“Xcel Energy” or “Applicant”).¹
2. The Project is proposed to fulfill the Commission’s requirement, from Xcel Energy’s 2020-2034 Upper Midwest Integrated Resource Plan, that Xcel Energy procure approximately 720 MW of company-owned solar generation to fully reutilize the interconnection capacity that was made available due to the cessation of operations of Unit 2 of the Sherco Generating Plant, in 2023.² The Commission previously approved cessation of operations of Unit 2 and, upon cessation, existing interconnection capacity must be repowered or retired by Xcel Energy under the Midcontinent Independent System Operator generating facility replacement process.³
3. The solar facilities will be constructed in eight portions (“Units”) of the Project area, on which Xcel Energy has lease options (“Lease Area”), that will be connected to the previously permitted Sherco Solar West Block Collector Substation (“Sherco Solar West Substation”)⁴ via below-ground 34.5 kilovolt (“kV”) electric collection and communication lines (“Collection Corridor Facilities”) routed from the Solar facilities to the Sherco Solar West Substation within six corridors (“Collection Corridors”).⁵

¹ Ex. XCEL-101 at 9 (Application).

² See *In the Matter of the 2020–2034 Upper Midwest Integrated Resource Plan of Northern States Power Company d/b/a Xcel Energy*, MPUC Docket No. E002/RP-19-368, Order Approving Plan with Modifications and Establishing Requirements for Future Filings at Order Point 5.A.

³ See *In the Matter of Xcel Energy’s 2016-2030 Integrated Resource Plan*, MPUC Docket No. E-002/RP-15-21, Order Approving Plan with Modifications and Establishing Requirements for Future Resource Plan Filings (Jan. 11, 2017); Ex. XCEL-101 at 10 (Application).

⁴ The Sherco Solar West Substation was permitted under the Sherco Solar Project. See *In the Matter of the Application of Xcel Energy for a Site Permit and Two Route Permits for the up to 460 Megawatt Sherco Solar Energy Generating System and Associated 345 Kilovolt Transmission Lines in Sherburne County, Minnesota*, MPUC Docket Nos. E-002/GS-21-191, E-002/TL-21-190, and E-002/TL-21-189, Order Issuing Site and Route Permits (Sep. 22, 2022); *In the Matter of the Application of Xcel Energy for a Site Permit for the up to 460-megawatt Sherco Solar Energy Generating System in Sherburne County*, MPUC Docket No. E-002/GS-21-191, Site Permit (Sep. 22, 2022).

⁵ Ex. XCEL-101 at 9 (Application); Ex. XCEL-114 at 3–4 and Attachment B (Testimony of E. Heine) (noting that Unit 04 was removed from the Project because of siting constraints posed by existing transmission lines that cross Unit 04).

4. The Project will be the third solar generation facility slated to replace Unit 2 of the Sherco Generating Plant.⁶ In April 2021, under MPUC Dockets E-002/TL-21-189, TL-21-190 and GS-21-191, Xcel Energy, working jointly with National Grid Renewables Development, LLC, submitted an application for a site permit and two route permits to the Commission under the alternative review process (Minnesota Statutes § 216E.04; Minnesota Rule 7850.2800-3900) for an up to 460 MW AC solar energy generating system (“Sherco Project”). A site permit and two route permits were issued by the Commission for the Sherco Solar Project—commonly referred to as Sherco Solar 1 & 2—on September 22, 2022.⁷

II. APPLICATIONS AND RELATED PROCEDURAL BACKGROUND

5. Xcel Energy submitted a request to the Minnesota Department of Commerce for a size determination on April 26, 2023, in accordance with Minn. Stat. § 216E.021. On May 2, 2023, DOC-EERA determined that the Project is not associated with any other current or planned solar projects in Minnesota.⁸ Because the proposed Project is greater than 50 MW, DOC-EERA determined that the Project is subject to the Commission’s siting authority.⁹
6. On June 16, 2023, Applicant filed its Notice of Application for a Site Permit under the Alternative Permitting Process for the Project.¹⁰
7. On August 8, 2023, Applicant filed its Application for a Site Permit for the Project (“Application”).¹¹
8. On August 11, 2023, the Commission issued a Notice of Comment Period requesting comments on the completeness of the Application and the process by which the Application should be reviewed by the Commission. The initial comment period closed on August 24, 2023, the reply comment period closed on August 31, 2023, and the supplemental reply comment period closed on September 6, 2023.¹²
9. On August 17, 2023, the Commission issued an Amended Notice of Comment Period requesting comments on the delegation of authority relating to the State Historic

⁶ Ex. XCEL-101 at 10 (Application).

⁷ See *In the Matter of the Application of Xcel Energy for a Site Permit and Two Route Permits for the up to 460 Megawatt Sherco Solar Energy Generating System and Associated 345 Kilovolt Transmission Lines in Sherburne County, Minnesota*, MPUC Docket Nos. E-002/GS-21-191, E-002/TL-21-190, and E-002/TL-21-189, Order Issuing Site and Route Permits (Sep. 22, 2022).

⁸ Ex. XCEL-101 at 13 (Application); Ex. XCEL-103 at 53 (Application Appendices A–E) (Appendix C, MN Department of Commerce Agency Response).

⁹ Ex. XCEL-101 at 13 (Application); Ex. XCEL-103 at 53 (Application Appendices A–E) (Appendix C, MN Department of Commerce Agency Response).

¹⁰ Ex. XCEL-100 (Notice of Intent).

¹¹ Ex. XCEL-101 (Application); Ex. XCEL 102 (Application Maps); Ex. XCEL 103 (Application Appendices A–E); Ex. XCEL 104 (Application Appendix B (Trade Secret [“TS”])); Ex. XCEL 105 (Application Appendices F–G); Ex. XCEL 106 (Application Appendix H); Ex. XCEL 107 (Application Appendix I); Ex. XCEL 108 (Application Appendix I [TS]); Ex. XCEL 109 (Application Appendices J–K).

¹² Notice of Comment Period (Aug. 11, 2023) (eDocket ID Nos. [20238-198167-01](#) and [20238-198173-01](#)).

Preservation Office (“SHPO”) consultation. The comment period dates remained the same as with the previous Notice of Comment Period.¹³

10. On August 22, 2023, DOC-EERA submitted comments and recommendations concerning acceptance of the Application. DOC-EERA recommended that the Commission accept the Application as complete and take no action on an advisory task force.¹⁴
11. On August 31, 2023, Xcel Energy submitted reply comments regarding Application completeness and the process for reviewing the Application.¹⁵
12. On September 6, 2023, Xcel Energy submitted supplemental reply comments regarding Application completeness and the process for reviewing the Application.¹⁶
13. On September 6, 2023, DOC-EERA submitted reply comments in which it agreed with Xcel Energy’s comment that a Summary Report from the ALJ would be acceptable in lieu of a full ALJ Report.¹⁷
14. On September 22, 2023, the Commission issued a Notice of Commission Meeting—Hybrid Format for its October 5, 2023 meeting.¹⁸ Commission Staff filed briefing papers, in advance of the October 5th meeting, on September 27, 2023¹⁹ and amended briefing papers on October 4, 2023.²⁰
15. On October 4, 2023, the Commission submitted an Ex Parte Communication Report regarding its communication with the Mille Lacs Band of Ojibwe (“MLBO”) on SHPO delegation.²¹
16. On October 20, 2023, the Commission submitted its Notice of Public Information and Environmental Assessment (“EA”) Scoping Meetings.²² An in-person meeting was noticed for November 7, 2023, and a remote-access meeting was noticed for November 8, 2023. A written comment period was also open through November 22, 2023. The Notice requested comments on issues and facts that should be considered in the development of the EA and if any alternate site should be considered for the Project.

¹³ Ex. PUC-300 (Amended Notice of Comment Period).

¹⁴ Ex. DOC-200 (Comments on Application Completeness).

¹⁵ Ex. XCEL-110 (Reply Comments re Application Completeness).

¹⁶ Ex. XCEL-111 (Supplemental Reply Comments re Application Completeness).

¹⁷ Ex. DOC-201 (Reply Comments re ALJ Report).

¹⁸ Ex. PUC-301 (Notice of Commission Meeting).

¹⁹ Commission Briefing Papers (Sep. 27, 2023) (eDocket ID No. [20239-199173-01](#)); Commission Revised Decision Options (Sep. 27, 2023) (eDocket ID No. [20239-199191-01](#)).

²⁰ Commission Amended to Decision Option 5 (Oct. 4, 2023) (eDocket ID No. [202310-199391-01](#)).

²¹ Commission Ex Parte Communication Report (Oct. 4, 2023) (eDocket ID No. [202310-199379-01](#)). On August 29, 2023, the MLBO submitted comments stating generally that the Commission should consider impacts of green energy projects on farmland (eDocket ID No. [20238-198568-01](#)) and on September 5, 2023, the MLBO submitted comments requesting that the Commission direct the SHPO to consult with Tribal Historic Preservation Offices (“THPOs”) (eDocket ID No. [20239-198726-01](#)).

²² Ex. PUC-302 (Notice of Public Information and EA Meetings).

17. On October 23, 2023, the Commission issued its Order Accepting Application as Complete and Authorizing Use of the Alternative Review Process. The Commission accepted the Application as complete and referred the Application to the Office of Administrative Hearings (“OAH”) for a summary proceeding. The Order also issued an authorization for Xcel Energy to initiate consultation with SHPO.²³
18. On November 7, 2023, Commission Staff and DOC-EERA held a public meeting in-person to provide the public with information about the Project and to solicit comments on the scope of the EA.²⁴ Commission Staff, DOC-EERA, and representatives from Xcel Energy were present. Twenty members of the public spoke during the November 7, 2023 public hearing (in-person). During the remote-access public hearing held on November 8, 2023, no members of the public spoke.²⁵
19. On November 27, 2023, DOC-EERA submitted written comments received during the comment period. Sixteen members of the public submitted written comments prior to the November 22, 2023, comment deadline.²⁶ An additional four members submitted comments after the comment deadline.²⁷
20. On November 27, 2023, the Commission filed a Sample Site Permit.²⁸
21. On December 13, 2023, Xcel Energy submitted an update regarding its SHPO consultation pursuant to the October 23, 2023 Order.²⁹ Xcel Energy also engaged with a representative from the MLBO and stated that it would continue to coordinate with the MLBO regarding concerns with the Project.
22. On December 21, 2023, Xcel Energy submitted reply comments in response to comments received during the EA scoping comment period.³⁰
23. On January 24, 2024, DOC-EERA submitted its EA Scoping Decision. DOC-EERA also provided a summary of the scoping process and topics to be studied in the EA.³¹

²³ Ex. PUC-303 (Order Accepting Application as Complete and Authorizing Use of the Alternative Review Process).

²⁴ See Public Meeting Presentation (Nov. 8, 2023) (eDocket ID No. 202311-200338-01).

²⁵ See *generally* Clear Lake 6:00 p.m. Public Information and EA Scoping Meeting Transcript (Clear Lake 6:00 p.m. Tr.) (Nov. 7, 2023); Webex 6:00 p.m. Public Information and EA Scoping Meeting Transcript (Webex 6:00 p.m. Tr.) (Nov. 8, 2023).

²⁶ Ex. DOC-206 (Comment by Reed Hentges); Ex. DOC-207 (Comment by Paul & Kathy Gray); Ex. DOC-208 (Comment by Father Joseph Backowski); Ex. DOC-209 (Comment by Jeff Edling); Ex. DOC-210 (Comment by Kim and Steve Butkowski); Ex. DOC-211 (Comment by Katie Brenny); Ex. DOC-212 (Comment by Jared Matson); Ex. DOC-213 (Comment by Josh Ramsey); Ex. DOC-214 (Comment by Bonnie Kaiawe); Ex. DOC-215 (Comment by Carl & Paula Erdmann); Ex. DOC-216 (Comment by Bret Collier); Ex. DOC-217 (Comment by Thomas Hentges & Family); Ex. DOC-218 (Comment by Ron & Debbie Schabel); Ex. DOC-219 (Comment by Mary Simpler); Ex. DOC-225 (Comment by Cassie Kozak); Ex. DOC-226 (Comment by Bridget Huber).

²⁷ Ex. DOC-220 (Comment by Tracy Sodon); Ex. DOC-221 (Comment by Erin Geiger); Ex. DOC-222 (Comment by David P McDonald); Ex. DOC-223 (Comment by Barry & Brenda Schuldt).

²⁸ Sample Site Permit (Nov. 27, 2023) (eDocket ID No. [202311-200753-01](#)).

²⁹ Ex. XCEL-112 (SHPO Update Letter).

³⁰ Ex. XCEL-113 (Reply Comments regarding EA Scoping).

³¹ Ex. DOC-224 (EA Scoping Decision).

24. On February 15, 2024, the ALJ issued an Order for Prehearing Conference setting a prehearing conference for February 26, 2024.³²
25. On March 7, 2024, the ALJ issued the First Prehearing Order which set a schedule for the proceedings.³³
26. On April 11, 2024 the matter was reassigned to Assistant Chief ALJ Kristien R.E. Butler.³⁴ Accordingly, the OAH docket number changed to 24-2500-39813.
27. On April 22, 2024, DOC-EERA issued the EA.³⁵
28. On April 23, 2024, the Commission issued Notice of Public Hearings and Availability of Environmental Assessment setting a hearing for May 7, 2024 (remote access) and May 9, 2024 (in-person). A written comment period was also open through May 22, 2024.³⁶
29. On April 30, 2024, Xcel Energy filed the Direct Testimony of Ellen Heine³⁷ and Peter Gitzen.³⁸ Among other topics, the Direct Testimony of Ellen Heine explained that Xcel Energy had removed a unit of the Project from the Project area because of siting constraints posed by existing transmission lines that crossed proposed Unit 4 of the Project.
30. On April 30, 2024, the Department issued Notice of the Availability of the Environmental Assessment in the *EQB Monitor*.³⁹
31. On April 30, 2024, the Department filed notice of mailing the EA to the Great River Regional Library – Clearwater and the Great River Regional Library – Becker.⁴⁰ It also filed notice of EA availability to agencies,⁴¹ tribal governments,⁴² and tribal historic preservation officers.⁴³
32. On May 2, 2024, Xcel Energy filed its compliance filing regarding the Application submittal and notice of public information and EA scoping meetings.⁴⁴ Xcel Energy submitted attachments showing that it completed the site permit notice requirements of Minnesota Rules 7829.2500 & 7850.2100 and Minn. Stat. § 216E.03, subd. 4. And Xcel Energy showed that it provided newspaper publication in the Becker Patriot News of the Notice of Public Information and Environmental Assessment Scoping meetings.

³² Order For Prehearing Conference (Feb. 15, 2024) (eDocket ID No. [20242-203473-01](#)).

³³ First Prehearing Order (Mar. 7, 2024) (eDocket ID No. [20243-204142-01](#)).

³⁴ Letter reassigning matter (Apr. 11, 2024) (eDocket ID No. [20244-205250-01](#)).

³⁵ Ex. DOC-227 (EA).

³⁶ Ex. PUC-304 (Notice of Public Hearings and Availability of EA).

³⁷ Ex. XCEL-114 (Testimony of E. Heine).

³⁸ Ex. XCEL-115 (Testimony of P. Gitzen).

³⁹ EQB Monitor - Notice of Public Hearings and Availability of EA (Apr. 30, 2024) (eDocket ID No. [20244-206192-01](#)).

⁴⁰ Ex. DOC-228 (Notification of Mailing to Libraries).

⁴¹ Ex. DOC-229 (Notification of EA Availability to Agencies).

⁴² Ex. DOC-230 (Notification of EA Availability to Tribal Governments).

⁴³ Ex. DOC-231 (Notification of EA Availability to Tribal Historic Preservation Offices).

⁴⁴ Xcel Compliance Filing (May 2, 2024) (eDocket ID No. [20245-206310-01](#)).

33. On May 7 and 9, 2024, the ALJ presided over joint public hearings on the Application for the Project via remote and via in-person means, respectively.⁴⁵ Commission Staff, DOC-EERA, and representatives from Xcel Energy. One member of the public spoke during the May 7, 2024 public hearing (remote-access).⁴⁶ During the in-person public hearing held on May 9, 2024, thirteen members of the public spoke.⁴⁷
34. On June 4, 2024, Xcel filed its compliance filing regarding the notice of public hearings and EA availability.⁴⁸

III. PROJECT DESCRIPTION

35. The proposed Project is an up to 250-MW Solar Project located in the city of Clear Lake and Clear Lake Township in Sherburne County, Minnesota. The Project will connect to the previously permitted Sherco Solar West Substation, which will connect to the existing Sherburne County Substation.⁴⁹
36. The solar facilities will be constructed in eight portions (“Units”)⁵⁰ of the Project area, on which Xcel Energy has lease options (“Lease Area”), that will be connected to the Sherco Solar West Block Collector Substation (“Sherco Solar West Substation”) via below-ground 34.5 kV electric collection and communication lines (“Collection Corridor Facilities”) routed from the solar facilities to the Sherco Solar West Substation within six corridors (“Collection Corridors”). The Project has an anticipated service life of 35 years.⁵¹
37. The Project will partially replace energy production of the nearby 710 MW Sherco Generating Plant Unit 2, an existing coal-powered facility. In October 2016, the Commission required that Xcel Energy retire the Sherco Generating Plant – Unit 2 in 2023.⁵²
38. The Project is part of a set of investments Xcel Energy proposed in response to a request from the Commission to identify projects that could create jobs and assist the clean energy transition while also keeping bills low for its customers. Xcel Energy estimates that construction of the Project will provide approximately \$62.5 million in wages from nearly 490 union construction jobs, in addition to opportunities for sub-contracting to local contractors for gravel, fill, and civil work.⁵³
39. The Project elements include PV panels, trackers, inverters, transformers, access roads, security fencing, above-ground and below-ground electric collection and communication

⁴⁵ Public Hearing Presentation (May 6, 2024) (eDocket ID No. [20245-206442-01](#)).

⁴⁶ *See generally* Webex 6:00 p.m. Public Hearing Transcript (Webex 6:00 p.m. Tr.) (May 7, 2024).

⁴⁷ *See generally* Becker 6:00 p.m. Public Hearing Transcript (Becker 6:00 p.m. Tr.) (May 9, 2024).

⁴⁸ Xcel Compliance Filing (June 4, 2024) (eDocket ID No. [20246-207390-01](#)).

⁴⁹ Ex. XCEL-101 at 13 (Application).

⁵⁰ Xcel initially proposed nine units and subsequently clarified that no facilities would be constructed within

⁵¹ Ex. XCEL-101 at 9 (Application).

⁵² Ex. XCEL-101 at 9 (Application).

⁵³ Ex. DOC-227 at 53 (EA).

lines and up to eight weather stations (“Solar Facilities”) and the collection corridor facilities.⁵⁴

40. The Project contractors will utilize one temporary laydown area covering approximately nine acres located within Unit 6 along the eastern fence line. After construction, the laydown area within Unit 6 will be seeded with the mix identified in the Vegetation Management Plan.⁵⁵
41. 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 to slowly track with the sun throughout the day. 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. The tracking rack system is mounted on top of steel piers that are typically driven into the ground, without a need for excavation or concrete to install the piers.⁵⁶
42. The solar panels deliver DC power. DC collection cables will be strung under each row of panels. Hanging brackets will connect several racks/rows of cables to a common collection point near their assigned inverter/transformer skid where the cables will be routed below-ground at a minimum depth of at least four feet below grade to the inverter/transformer skid where the current is converted to AC and voltage is stepped up to 34.5 kV. The power is then transmitted via collection lines to the Sherco Solar West Substation. The Sherco Solar West Substation will collect power from the Project. The Sherco Solar West Substation will be 34.5/345 kV step-up substation with metering and switching gear required to connect to the transmission grid at the Sherburne County Substation. Generated power is then carried to the existing transmission infrastructure.⁵⁷ 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.⁵⁸
43. The Project will use a Supervisory Control and Data Acquisition (“SCADA”) system to control and monitor the Project. The SCADA system provides data on solar generation and production, availability, meteorology, and communications.⁵⁹
44. Xcel Energy’s total estimated costs to construct the Project are approximately \$434 million.⁶⁰ The total installed capital costs for the Project will depend on variables including,

⁵⁴ Ex. XCEL-101 at 9 (Application).

⁵⁵ Ex. XCEL-101 at 26 (Application).

⁵⁶ Ex. XCEL-101 at 19–20 (Application).

⁵⁷ Ex. XCEL-101 at 22, 25 (Application).

⁵⁸ Ex. XCEL-101 at 22–23 (Application).

⁵⁹ Ex. XCEL-101 at 35 (Application).

⁶⁰ Ex. DOC-227 at 22–23 (EA)

but not limited to, construction costs, taxes, and tariffs, along with associated electrical and communication systems, and access roads.⁶¹

IV. PROJECT SITE CONSIDERATIONS

A. Site location and characteristics

45. The Project is proposed to be located in Clear Lake Township and the city of Clear Lake in Sherburne County, Minnesota.⁶² The Project would interconnect to the electrical grid at the Sherco Solar West Block Collector Substation via below-ground 34.5 kV electric collection lines.⁶³ Xcel Energy selected this location based on the need to replace a portion of the energy production being lost by ceasing operation of Unit 2 of the Sherco Generating Plant, significant landowner interest, transmission and interconnection suitability and availability, optimal solar resource, and minimal impact on environmental resources. Xcel Energy is not able to utilize the existing Sherco Generating Plant site for this Project due to its plans to continue coal generation operations at the existing site through 2030 and to allow redevelopment of the land to commercial and industrial uses as part of the City of Becker's planned business park.⁶⁴
46. Xcel Energy is not required to analyze alternative sites pursuant to Minn. Stat. § 216E.04, subd 3 and Minn. R. 7850.3100. Xcel Energy did not consider alternative sites other than the Project area because of the opportunity to replace electric generation from coal with solar energy and Xcel Energy's interconnection rights for the existing Sherburne County Substation. Additionally, the Project is sited on lands under lease or easements by willing Project participants on land that has an excellent solar resource with minimal environmental impacts expected from Project construction.⁶⁵
47. Lease agreements have been obtained from the landowners of the parcels that will host Solar Facilities.⁶⁶
48. Xcel Energy has obtained easements for all Collection Corridors, except it is negotiating underground collection easements for Collection Corridor U09/U09 Alt⁶⁷ and may acquire

⁶¹ Ex. XCEL-101 at 17 (Application).

⁶² Ex. XCEL-101 at 14 (Application); DOC-227 at 13 (EA).

⁶³ DOC-227 at 13 (EA).

⁶⁴ Ex. XCEL-101 at 16 (Application).

⁶⁵ Ex. XCEL-101 at 17 (Application).

⁶⁶ Ex. XCEL-101 at 14 (Application); *see also* DOC-227 at 14 (EA).

⁶⁷ Ex. XCEL-101 at 14 (Application); Ex. XCEL 115 at 2 (Testimony of P. Gitzen).

additional easements for Collection Corridors U02 and U04⁶⁸ or may utilize existing road right-of-way/easements.⁶⁹

B. Resource considerations

49. The Project is generally located northwest of the Sherco Generating Plant between U.S. Highway 10 and the Mississippi River in the city of Clear Lake and Clear Lake Township in Sherburne County, Minnesota. Xcel Energy selected this location based on the need to replace a portion of the energy production being lost by ceasing operation of Unit 2 of the Sherco Generating Plant, significant landowner interest, transmission and interconnection suitability and availability, optimal solar resource, and minimal impact on environmental resources.⁷⁰ The Project is also part of a set of investments Xcel Energy proposed in response to a request from the Commission to identify projects that could create jobs and assist the clean energy transition while also keeping bills low for its customers. Xcel Energy estimates that construction of the Project will provide approximately \$62.5 million in wages from nearly 490 union construction jobs, in addition to opportunities for subcontracting to local contractors for gravel, fill, and civil work.⁷¹

V. PROJECT SCHEDULE

50. The anticipated schedule for the Project is provided in the Application's Appendix B, Section 1.3, portions of which have been designated as trade secret. Xcel Energy anticipates starting construction after the crops being grown in the Project area are harvested in the fall 2024.⁷²

VI. PERMITTEE.

51. Xcel Energy, as the applicant and permittee under the Site Permit, will construct, own, and operate the Project.⁷³

VII. PUBLIC, GOVERNMENT, AND TRIBAL PARTICIPATION.

52. Xcel Energy reached out to local government agencies, public agencies and Tribal representatives prior to submitting the Site Permit Application and continued to meet with

⁶⁸ Unit 4 will not host Project infrastructure due to siting constraints posed by existing transmission lines that cross Unit 4. The Project's solar panels must be setback from existing transmission lines to accommodate the existing easement rights and to ensure the solar panels are not shaded by the transmission lines. The imposition of adequate setbacks in this unit meant that we couldn't feasibly fit panels in Unit 4. Xcel Energy can meet its power production target for the existing layout without placing panels in this Unit. In order to allow continued use of Unit 3, a new easement corridor was recently secured between Units 3 and 7 via a voluntary easement agreement. Ex. Xcel-114 at 3-4 (Testimony of E. Heine).

⁶⁹ Xcel Energy has identified two possible collection corridors for this location, which would connect Unit 9 to a collection corridor south of Highway 10. Xcel Energy continues to work with the owners of land along both possible collection corridors to discuss the possibility of securing a voluntary easement across one of the properties. Ex. Xcel-115 at 2 (Testimony of P. Gitzen).

⁷⁰ Ex. XCEL-101 at 14 (Application).

⁷¹ Ex. DOC-227 at 53 (EA).

⁷² Ex. XCEL-114 at 3 (Testimony of E. Heine).

⁷³ Ex. XCEL-101 at 14 (Application).

local government agencies throughout the pendency of its Applications before the Commission.⁷⁴

53. In September 2022, Xcel Energy sent a Project notice letter to the City of Clear Lake describing an earlier iteration of the Project for up to 150 MW of solar on approximately 1,035 acres of land, including that portion of the current Project area located within the City of Clear Lake. On October 5, 2022, Clear Lake provided a letter of support for the proposed Project. Following that date, additional lands were added to the Project area, increasing the size from 1,035 acres to approximately 1,700 acres, as described in the Application. In February 2023 a notice of availability to meet to discuss the Project, along with an updated Project map, was sent to the City of Clear Lake.⁷⁵
54. In September 2022, Xcel Energy sent a Project notice letter to the Clear Lake Township describing an earlier iteration of the Project for up to 150 MW of solar on approximately 1,035 acres of land. On September 26, 2022, Clear Lake Township provided a letter of support for the proposed Project. Following that date additional lands were added to the Project area, increasing the size from 1,035 acres to approximately 1,700 acres, as described in this Application. In February 2023, a notice of availability to meet to discuss the Project, along with an updated Project map, was sent to Clear Lake Township. Township representatives acknowledged receipt of the letter but did not request a meeting.⁷⁶
55. On August 29, 2023, the MLBO submitted comments on the Project.⁷⁷ And on September 5, 2023, they submitted supplemental comments.⁷⁸
56. On November 21, 2023, the Minnesota Department of Natural Resources (“MDNR”) submitted comments regarding issues to be evaluated in the EA, including the Project’s lighting, fencing, dust control, erosion control and potentially impacts to wildlife.⁷⁹
57. On November 22, 2023, Minnesota Department of Transportation (“MnDOT”) submitted comments concerning the Project.⁸⁰
58. On February 14 and 22, 2023, Project notification letters were sent to the City Administrator and the Community Development Director for the City of Becker and in-person meetings were held to review the Project.⁸¹
59. On May 14, 2024, Clear Lake Township submitted comments in support of the Project, noting the Project would result in significant revenue increase for the Township.⁸²

⁷⁴ Ex. XCEL-101 at 110–112 (Application).

⁷⁵ Ex. XCEL-101 at 115 (Application).

⁷⁶ Ex. XCEL-101 at 116 (Application).

⁷⁷ Comments by MLBO (Aug. 29, 2023) (eDocket ID No. [20238-198568-01](#)).

⁷⁸ Comments by MLBO (Sep. 5, 2023) (eDocket ID No. [20239-198726-01](#)).

⁷⁹ Ex. DOC-203 (MDNR Comments regarding scope of EA).

⁸⁰ Ex. DOC-204 (MnDOT Comments regarding scope of EA).

⁸¹ Ex. XCEL-101 at 116 (Application).

⁸² Ex. PUC-307 (Clear Lake Township Comments regarding EA).

60. On May 22, 2024, MDNR submitted comments regarding special permit conditions for lighting, dust control, erosion control, and potential impacts to wildlife.⁸³
61. On May 22, 2024, the MLBO Department of Natural Resources submitted public comments indicating its Tribal Historic Resource Officer did not identify cultural resource issues following a site visit and review of area maps and plans in November 2023. MLBO Department of Natural Resources encouraged the Applicant to work with SHPO, and recommended the Commission require the Applicant to have Tribal monitors on site during project construction to minimize the potential for inadvertent discoveries of human remains. The MLBO Department of Natural Resources also expressed a strong preference that the Project does not excessively intrude on agricultural land.⁸⁴
62. On May 22, 2024, DOC-EERA submitted comments addressing the decommissioning plan, site permit modifications, solar glare, and Project changes. DOC-EERA commented that the decommissioning plan generally meets EERA expectations, but suggested several revisions to the plan prior to its submittal as a pre-construction filing. DOC-EERA summarized the differences between the Commission's draft site permit issued on November 27, 2023, and the draft site permit included as an attachment to the EA, namely, that the Project description was updated, a visual screening plan was added as a condition along with a condition to consult with the local snowmobile trail association, an unanticipated discoveries plan was added as a condition, and several additional wildlife-related conditions were added. DOC-EERA also explained that solar glare from the Project is unlikely to cause impacts. Finally, DOC-EERA recommended that the Commission update the final permit to accurately reflect changes to the Project area.
63. On May 23, 2024, the MPCA commented indicating it had reviewed the EA and had no comments.⁸⁵
64. On May 24, 2024, Xcel Energy responded to the MLBO's comments to state that Xcel Energy continues to work with, and will continue to work with, SHPO and the MLBO to develop plans to minimize potential impacts. Xcel Energy highlighted the Vegetation Management Plan, which will involve planning pollinator-friendly native vegetation around and between solar panels, and will enhance wildlife habitat value of the area relative to agricultural use. Xcel Energy also noted it will coordinate with MLBO to design a plan for Tribal monitoring that addresses MLBO's concerns, considers MLBO staff availability, and does not unduly delay site preparation and construction.⁸⁶

VIII. SUMMARY OF PUBLIC COMMENTS

65. During public comment periods and at the public meeting and hearing sessions, members of the public offered comments/questions. The comments and questions covered a broad range of topics, including: setbacks, agriculture; noise; property values; wildlife and their

⁸³ Ex. DOC-235 (MDNR Comments regarding EA).

⁸⁴ Ex. PUC-314 (Mille Lacs Band of Ojibwe Comments regarding EA).

⁸⁵ Ex. DOC-236 (MPCA Comments on EA).

⁸⁶ Ex. XCEL-117 (Response to MLBO Comments).

- habitats; loss of usable farmland; concern about hazardous materials; intermittency of renewable generation; water pollution; and economic development.
66. On August 24, 2023, the IUOE submitted comments in favor of finding the Application complete.⁸⁷
 67. Twenty members of the public spoke during the November 7, 2023 public meeting (in-person). During the remote-access public meeting held on November 8, 2023, no members of the public spoke.⁸⁸
 68. On November 21 and 27, 2023, the MDNR submitted comments regarding issues to be evaluated in the EA, including the Project's fencing, soil, potential impacts to wildlife, lighting, dust control, and erosion control.⁸⁹
 69. On November 22, 2023, the MnDOT submitted comments concerning the Project.⁹⁰
 70. Reed Hentges submitted comments raising concerns of potential soil runoff from loose soil under these panels, loss of wildlife habitat, obstruction of wildlife corridors, and the loss of natural scenic environment. Mr. Hentges also raised concerns on the impacts to property values.⁹¹
 71. Paul and Kathy Gray submitted comments expressing support for the Project stating that they "strongly support green energy."⁹²
 72. Father Joseph Backowski submitted comments raising concerns that the proximity of the Project to the St. Marcus Cemetery would create negative visual impacts for visitors to the cemetery, among other items. Father Bakowski suggested that mitigation of visual impacts on the cemetery is necessary. His suggested mitigation includes a set-back of one-half mile from the cemetery together with extensive tree plantings between the Project and the cemetery.⁹³
 73. Kim and Steve Butkowski submitted comments expressing concern about the proximity of the Project to the St. Marcus cemetery.⁹⁴
 74. Thomas Hentges and Family submitted comments against the Project, stating that potential historic sites may be disturbed, effects of the Project on local waterways and the proximity of the Project to the St. Marcus Cemetery are among their largest concerns.⁹⁵

⁸⁷ IUOE Comments (Aug. 24, 2023) (eDocket ID No. [20238-198478-01](#)).

⁸⁸ See generally Clear Lake 6:00 p.m. Tr. (Nov. 7, 2023); Webex 6:00 p.m. Tr. (Nov. 8, 2023).

⁸⁹ Ex. DOC-203 (MDNR Comments regarding scope of EA).

⁹⁰ Ex. DOC-204 (MnDOT Comments regarding scope of EA).

⁹¹ Ex. DOC-206 (Comment by Reed Hentges).

⁹² Ex. DOC-207 (Comment by Paul & Kathy Gray).

⁹³ Ex. DOC-208 (Comment by Father Joseph Backowski).

⁹⁴ Ex. DOC-210 (Comment by Kim and Steve Butkowski).

⁹⁵ Ex. DOC-217 (Comment by Thomas Hentges & Family).

75. Ron and Debbie Schabel submitted comments raising concerns that the proximity of the Project to the St. Marcus Cemetery would create negative visual impacts for visitors to the cemetery.⁹⁶
76. Jeff Edling, Edling Farms submitted comments against the Project. Mr. Edling raises issues with the proposed easement for an electrical collection cable crossing his farm and the negative impacts of disruption to his farming operation.⁹⁷
77. Katie Brenny submitted comments raising concerns on setbacks and requesting visual screening; the potential impacts to local wildlife and human health.⁹⁸
78. Jared Matson submitted comments raising concerns on setbacks, the potential impacts to local wildlife, Prairie Lake and the local watershed, and human health.⁹⁹
79. Josh Ramsey submitted comments stating that potential effects of the Project on local wildlife and loss of productive farmland are among his largest concerns.¹⁰⁰
80. Bonnie Kaiawe submitted comments raising a concern regarding the potential risk of chemicals leaking into the groundwater and the proximity of the Project to an elementary school.¹⁰¹
81. Carl and Paula Erdmann submitted comments on the potential effects of the Project on local wildlife and their well water.¹⁰²
82. Bret Collier submitted comments stating that he believes the Project is being presented to the public in a “deceptive manner.” Mr. Collier also addresses his concerns for topics of the EA.¹⁰³
83. Mary Simpler submitted comments raising concerns on the potential effects of the Project on local wildlife (specifically an eagle’s nest). Ms. Simple points out that FAA was not noticed of the EA availability and has concerns about the local airplane flight paths. Ms. Simpler also requested soil mapping information for the Project.¹⁰⁴
84. On November 27, 2023, DOC-EERA filed a transcript of the November 7, 2023 EA scoping meeting, which includes a transcript of public oral comments on scoping.¹⁰⁵

⁹⁶ Ex. DOC-218 (Comment by Ron & Debbie Schabel).

⁹⁷ Ex. DOC-209 (Comment by Jeff Edling).

⁹⁸ Ex. DOC-211 (Comment by Katie Brenny).

⁹⁹ Ex. DOC-212 (Comment by Jared Matson).

¹⁰⁰ Ex. DOC-213 (Comment by Josh Ramsey).

¹⁰¹ Ex. DOC-214 (Comment by Bonnie Kaiawe).

¹⁰² Ex. DOC-215 (Comment by Carl & Paula Erdmann).

¹⁰³ Ex. DOC-216 (Comment by Bret Collier).

¹⁰⁴ Ex. DOC-219 (Comment by Mary Simpler).

¹⁰⁵ Ex. DOC-205 (Oral Comments – On Scoping); *see* Clear Lake 6:00 p.m. Tr. at 23–120 (Nov. 7, 2023).

85. Tracy Sodon submitted comments stating that potential effects of the Project on farmland and the incurred costs of consumer/taxpayers are among her largest concerns.¹⁰⁶
86. Erin Geiger submitted comments expressing support of the Project and noting the positive impacts the Project will have.¹⁰⁷
87. David P. McDonald submitted comments stating that potential effects of the Project on local waterbodies is his largest concern.¹⁰⁸
88. Barry and Brenda Schuldt submitted comments stating that potential effects of the Project on local wildlife and waterbodies and among their largest concerns.¹⁰⁹
89. Cassie Kozak submitted comments against the Project, stating that potential safety issues with the panels and loss of productive farmland are among her largest concerns.¹¹⁰
90. Bridget Huber submitted comments against the Project, stating that potential effects of the Project on local wildlife and waterbodies. Ms. Huber is also concerned about the visual impacts to the St. Marcus Cemetery.¹¹¹
91. On April 30, 2024, Xcel Energy filed direct testimony¹¹² which addressed some of the concerns brought up by the public. Namely, the direct testimony addressed concerns regarding potential effects to local waterbodies and watersheds,¹¹³ hazardous materials¹¹⁴, the potential for the Project to create a heat island, requested additional Project setbacks and collection corridor easements.¹¹⁵
92. On May 3, 2024, Mary Simpler submitted comments again expressing concerns on local airplane flight paths and requesting soil mapping information for the Project.¹¹⁶
93. One member of the public spoke during the May 7, 2024 public hearing (remote-access).¹¹⁷

¹⁰⁶ Ex. DOC-220 (Comment by Tracy Sodon).

¹⁰⁷ Ex. DOC-221 (Comment by Erin Geiger).

¹⁰⁸ Ex. DOC-222 (Comment by David P McDonald).

¹⁰⁹ Ex. DOC-223 (Comment by Barry & Brenda Schuldt).

¹¹⁰ Ex. DOC-225 (Comment by Cassie Kozak).

¹¹¹ Ex. DOC-226 (Comment by Bridget Huber).

¹¹² Ex. XCEL-114 (Testimony of E. Heine); Ex. XCEL-115 (Testimony of P. Gitzen).

¹¹³ Ex. XCEL-114 at 7–8 (Testimony of E. Heine).

¹¹⁴ Ex. XCEL-114 at 8–9 (Testimony of E. Heine).

¹¹⁵ Ex. XCEL-114 at 9–10 (Testimony of E. Heine).

¹¹⁶ Ex. DOC-233 (Comment by Mary Simpler).

¹¹⁷ See generally Webex 6:00 p.m. Tr. (May 7, 2024).

94. During the in-person public hearing held on May 9, 2024, thirteen members of the public spoke.¹¹⁸ At the end of the public hearing, Bret Collier and Father Joseph Backowski submitted written comments at that time.¹¹⁹
95. On May 10, 2024, Brian Lyons submitted comments expressing concerns the potential effects the Project will have on people, wildlife, farming, recreation. Mr. Lyons also claimed there is no viable means to replace the lost power, or to replace the lost tax revenue from the retiring coal-powered Sherco Generating Plant.¹²⁰
96. On May 14, 2024, Clear Lake Township noted its support for the Project and requested that the Site Permit be issued. The Project, in their opinion, will provide “significant lease revenues to property owners in Clear Lake Township.” Additionally, the Township notes the “significant property tax revenues” and “electrical production tax revenues” that will be generated by the Project and delivered to Clear Lake Township and Sherburne County.¹²¹
97. On May 16, 2024, Father Joseph Backowski submitted comments identifying concerns with the EA, particularly his opinion that the EA failed to identify the connection between resources, that the EA failed to treat similar environmental features consistently, and that the EA relies on generalized studies instead of specific studies. Father Backowski expressed concern that the Project area could not be returned to agricultural land after the end of the Project’s life, that the EA did not discuss concerns raised during scoping with the proximity to St. Marcus Cemetery and other cultural resources, that the EA did not identify the quantity of heavy metals in solar panels and thus did not adequately consider impacts on groundwater. Accordingly, Father Backowski recommended that the site permit be denied. But in the event that the permit is granted, Father Backowski recommended several permit conditions, including regular consultation with DNR or BWSR regarding impacts on soil health, a detailed catastrophic response plan prepared by Xcel Energy, a half-mile setback from cultural sites and a quarter-mile setback from city limits, require Xcel Energy to comply with DNR recommendations, require Xcel Energy to regularly consult with DNR regarding vegetation surveys, and require that all line-of-site mitigation for aesthetic impacts follow National Resource Conservation Service (“NRCS”) guidance, and that plans be developed in consultation with the Sherburne Soil & Water Conservation district.¹²²
98. On May 17, 2024, Bret Collier commented to express concern about the potential for contamination if solar panels break and to express concern about toxicity characteristic leaching procedure (“TCLP”) testing data that was presented by Xcel Energy.¹²³

¹¹⁸ See generally Becker 6:00 p.m. Tr. (May 9, 2024).

¹¹⁹ Bret Collier Written Comments from May 9, 2024 Public Hearing (June 4, 2024) (eDocket ID No. [20246-207397-01](#)); Father Joseph Backowski Written Comments from May 9, 2024 Public Hearing (June 4, 2024) (eDocket ID No. [20246-207397-02](#)).

¹²⁰ Ex. PUC-306 (Comment by Brian Lyons).

¹²¹ Ex. PUC-307 (Comment by Clear Lake Township).

¹²² Ex. PUC-308 (Comment by Father Joseph Backowski).

¹²³ Ex. PUC-309 (Comment by Bret Collier).

99. On May 21, 2024, Mary Simpler submitted comments attaching several resources, including: communication with Suzanne Steinhauer of DOC-EERA regarding hydric soils, and potential glare from the Project's panels; MISO's Response to the Reliability Imperative Executive Summary; and NERC's 2022 Summer Reliability Assessment.¹²⁴
100. On May 21, 2024, Bret Collier submitted comments linking to his personal video of the May 9 Public Hearing, reiterating concerns about TCLP testing, and emphasizing that the Project will only partially replace Sherco Unit 2.¹²⁵ He also expressed concern that Xcel Energy would be unable to pay for complete decommissioning, that heat coming from solar panels would negatively impact wildlife, that Electronic and Magnetic Fields ("EMFs") may cause impacts on wildlife, solar glare, potential impacts of mineral mining on climate change, and the provision of real-time data on energy production.
101. On May 22, 2024, LIUNA Minnesota/North Dakota commented to support the Project and the creation of union jobs.¹²⁶
102. On May 22, 2024, Jeanne E. Morris, an attorney representing landowners near the Project, commented to assert that the Commission should require Xcel Energy to pay her clients for any reduction in the value of their property due to its proximity to the Project. Ms. Morris's clients, Patrick Hermus and Heidi Meisenheimer own ten acres and a home located at 10050 70th Avenue Southeast, in Clear Lake, Minnesota.¹²⁷
103. On May 22, 2024, the International Union of Operating Engineers Local 49 and the North Central States Regional Council of Carpenters submitted comments in support of granting a site permit for the Project, and noting that the Project would create union jobs.¹²⁸
104. On May 23, 2024, Fayth Brennan commented to assert that the 1,780 acres of the Project area could also be used to feed people and to express concern about the aesthetic impacts of the Project.¹²⁹
105. On May 29, 2024, Xcel Energy submitted its response to public comments regarding: the adequacy of the EA, potential impacts to water quality, soils, wildlife, property values, aesthetics and vegetation and TCLP testing of the panels. Xcel Energy indicated the EA and the record developed during the EA review process adequately address the issues included in the scoping decision for the EA. Xcel Energy also noted how the EA and the record addressed most public concerns and the site permit includes adequate mitigation when mitigation is necessary to alleviate potential impacts.¹³⁰

SITE PERMIT

¹²⁴ Ex. PUC-310 (Comment by Mary Simpler).

¹²⁵ Ex. PUC-311 (Comment by Bret Collier).

¹²⁶ Ex. PUC-312 (Comment by LIUNA Minnesota/North Dakota).

¹²⁷ Ex. PUC- 313 (Comment by Jeanne Morris)..

¹²⁸ Ex. PUC-316 (Comment by IUOE Local 49 and NCSRC of Carpenters).

¹²⁹ Ex. PUC-317 (Comment by Fayth Brennan).

¹³⁰ Ex. XCEL-118 (Xcel Reply Comments).

I. SITE PERMIT CRITERIA

106. Large electric power generating plants (“LEPGP”) are governed by Minn. Stat. Ch. 216E and Minn. R. Ch. 7850. A “large electric power generating plant” is defined as “electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more.”¹³¹
107. On April 26, 2023, Applicant submitted information to DOC-EERA requesting a size determination for the Project. On May 2, 2023, DOC-EERA informed Applicant that the Project is subject to the Commission’s siting authority under Minn. Stat. Ch. 216E. Therefore, a site permit is required prior to construction of the Project.¹³²
108. A LEPPGP powered by solar energy is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04. Applicant filed the Application under the alternative process, as established by the Commission in Minn. R. 7850.2800 – 7850.3900.
109. Under Minn. Stat. § 216E.04, when an LEPPGP is permitted under the alternative permitting process, DOC-EERA prepares an environmental assessment containing information on the human and environmental impacts of the proposed Project and addresses mitigating measures. The environmental assessment is the only state environmental review document required for the Project.
110. The Power Plant Siting Act (“PPSA”), Minn. Stat. ch. 216E, requires that site permit determinations “be guided by the state’s goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state’s electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.”¹³³
111. Under the PPSA, the Commission must be guided by the following responsibilities, procedures, and considerations:
 - (1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power facilities and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;

¹³¹ Minn. Stat. § 216E.01, subd. 5.

¹³² Ex. XCEL-101 at 13 (Application).

¹³³ Minn. Stat. § 216E.03, subd. 7.

(2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;

(3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;

(4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;

(5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;

(6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;

(7) evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;

(8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;

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

(10) evaluation of the future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;

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

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

(13) evaluation of the benefits of the proposed facility with respect to (i) the protection and enhancement of environmental quality, and (ii) the reliability of state and regional energy supplies;

(14) evaluation of the proposed facility's impact on socioeconomic factors; and

(15) evaluation of the proposed facility's employment and economic impacts in the vicinity of the facility site and throughout Minnesota, including the quantity and quality of construction and permanent jobs and their compensation levels. The commission must consider a facility's local employment and economic impacts, and may reject or place conditions on a site or route permit based on the local employment and economic impacts.¹³⁴

112. In addition to the PPSA, the Commission is governed by Minn. R. 7850.4100, which mandates consideration of the following factors when determining whether to issue a permit for a large electric power generating plant or a route permit for a high-voltage transmission line:

- A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- B. effects on public health and safety;
- C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- D. effects on archaeological and historic resources;
- E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;
- F. effects on rare and unique natural resources;
- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;
- I. use of existing large electric power generating plant sites;
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- K. electrical system reliability;

¹³⁴ Minn. Stat. § 216E.03, subd. 7.

L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;

M. adverse human and natural environmental effects which cannot be avoided; and

N. irreversible and irretrievable commitments of resources.¹³⁵

113. There is sufficient evidence on the record for the Commission to assess the Project on the record using the criteria and factors set out above.

II. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT

A. Human settlement

114. Minnesota law requires consideration of the Project's effects on human settlement, including displacement of residences and businesses, noise created during construction and by operation of the Project, and impacts to aesthetics, cultural values, recreation, and public services.¹³⁶

115. The Project is in a rural area generally south and east of the City of Clear Lake.¹³⁷ Based on the 2020 U.S. Census, the population of Sherburne County is 97,183 persons, which represents 1.7 percent of the total population of Minnesota.¹³⁸

1. Displacement

116. No displacement is anticipated as a result of the Project; as such, no mitigation is proposed.¹³⁹

2. Noise

117. The proposed Project is in a rural, agriculturally dominated area; ambient noise levels for rural residents are typically 40 dBA during daytime hours. The primary noise receptors within the vicinity of the site would be residences.¹⁴⁰

118. Sound levels from grading equipment are not dissimilar from the typical tractors and larger trucks used in agricultural communities during harvest. It is anticipated that construction activities will only occur during daylight hours.¹⁴¹

¹³⁵ Minn. R. 7850.4100.

¹³⁶ Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, subp. A.

¹³⁷ Ex. XCEL-101 at 42 (Application).

¹³⁸ Ex. XCEL-101 at 52 (Application).

¹³⁹ Ex. XCEL-101 at 58 (Application); DOC-227 at 90 (EA).

¹⁴⁰ Ex. DOC-227 at 40 (EA).

¹⁴¹ Ex. DOC-227 at 40 (EA).

119. The results of noise modeling show that noise levels will be 50 dBA within 26 feet from the inverter. For residential areas, there is an expected level of 26 dBA within 598 feet, the distance of the nearest home to an inverter, well below the daytime L₅₀ dBA noise standard of 60 dBA and the nighttime standard of 50 dBA. Noise from the electric collection system is not expected to be perceptible.¹⁴²
120. No noise impacts are anticipated during operation because inverters will be located on the interior portions of the Project away from receptors; therefore, no mitigation measures are required.¹⁴³

3. Aesthetic impacts

121. The Project site topography is generally flat, with elevations ranging from 960 to 995 feet above sea level, and land use is dominated by agricultural (soybean, potatoes, and corn) crops.¹⁴⁴
122. Residences and farmstead are scattered throughout the Project area. There are no residences or businesses within the area of site control; however, there are 126 residences within 1,000 feet of the area of land control. The nearest home to the solar facility is located on the east side of 70th Avenue SE, approximately 124 feet from the fence line of Unit 1 and 220 feet from the fence line of Unit 7. In addition to nearby homes, the solar array is approximately 247 feet south of the southern St. Marcus cemetery property line and approximately 95 feet from the south-east corner of the St. Marcus cemetery property line.¹⁴⁵
123. The solar arrays could be visible from adjacent roadways and parcels but given their relatively low profile and the fact that all Solar Facilities will be fenced for security, they will not be visible from long distances.¹⁴⁶ For residents outside the Project vicinity and for others with low viewer sensitivity, such as travelers along public roadways, aesthetic impacts are anticipated to be minimal.¹⁴⁷ For these viewers, the solar panels would be relatively difficult to see or would be visible for a very short period. For residents in the Project vicinity with high viewer, aesthetic impacts are anticipated to be moderate to significant.¹⁴⁸ Site-specific landscaping plans can minimize visual impacts to adjacent land uses and homes through vegetation screening, berms, or fencing.¹⁴⁹
124. DOC-EERA proposed special permit condition 5.1 which would require Xcel Energy to prepare a visual screening plan to provide screening for adjacent residences and cemeteries. The special permit condition 5.1 provides the following:

¹⁴² Ex. DOC-227 at 41 (EA).

¹⁴³ Ex. DOC-227 at 6, 41 (EA).

¹⁴⁴ Ex. DOC-227 at 36 (EA).

¹⁴⁵ Ex. DOC-227 at 37 (EA); Ex. XCEL-115 at 3 (Testimony of P. Gitzen).

¹⁴⁶ Ex. XCEL-101 at 50 (Application).

¹⁴⁷ Ex. DOC-227 at 11, 38 (EA).

¹⁴⁸ Ex. DOC-227 at 38 (EA).

¹⁴⁹ Ex. DOC-227 at 39 (EA).

“The Permittee shall develop a site-specific Visual Screening Plan. The Visual Screening Plan shall be designed and managed to mitigate visual impacts to adjacent residences and cemeteries. The Visual Screening Plan shall at a minimum include:

- (a) objectives for screening of nearby residences and cemeteries (sic); and
- (b) a description of the types of trees and shrub species to be used, the location of plantings, and plans for installation, establishment, and maintenance. The location of trees and shrubs included in the Visual Screening Plan that are located within the Permittee’s site control shall be included in the Site Plan filed under Section 8.3.

At least 14 days prior to the pre-construction meeting, the Permittee shall file:

- (a) the Visual Screening Plan;
- (b) documentation of coordination between landowners within 500 feet of the site boundary; and
- (c) an affidavit of its distribution of the Visual Screening Plan to landowners within 500 feet of the site boundary.”

- 125. Xcel Energy has proposed a Landscape Screening Plan.¹⁵⁰ It will continue to work with adjacent landowners to address the need for landscaping to disrupt the line of site between the Project and nearby residences and the St. Marcus cemetery. Xcel Energy indicated it is amenable to DOC-EERA’s proposed permit condition 5.1.¹⁵¹
- 126. Xcel Energy indicates that lighting at the Project will be minimal and will be used primarily for repair or maintenance work. Project entrances will have motion activated down lit security lights. Down-lit switch controlled lights will be installed at each inverter for maintenance and repair and down-lit motion-activated lighting will be installed at various locations along the fence line for safety and security. Impacts to light-sensitive land uses are not anticipated given the rural Project location coupled with minimal required lighting for operations.¹⁵²
- 127. In its May 22, 2024 written comments, MDNR requested a special permit condition requiring the use shielded and downward facing lighting that minimizes blue hue.¹⁵³ MDNR suggested the following permit language:

“Permittee must use shielded and downward facing lighting and LED lighting that minimizes blue hue at the project substation. Downward facing lighting must be clearly visible on the site plan submitted for the project.”

¹⁵⁰ Ex. XCEL-115, at Attachment B (Testimony of P. Gitzen).

¹⁵¹ Ex. Xcel-118 (Xcel Reply Comments).

¹⁵² Ex. DOC-227 at 38–39 (EA).

¹⁵³ Ex. DOC-235 (MDNR Comments regarding EA).

Xcel Energy did not object to inclusion of this permit condition in its response to public comments.¹⁵⁴

DOC-EERA proposed modifications to MDNR’s proposed permit conditions to remove references to substation lighting and incorporate lighting at inverters and along the fence line.¹⁵⁵

Lighting

Permittees must use shielded and downward facing lighting and LED lighting that minimizes blue hue at the gate locations, inverters, and along fence lines. Downward facing lighting must be clearly visible on the plan and profile submitted for the project.

128. The record demonstrates that Applicant has taken steps to avoid and minimize impacts to aesthetics. Further, DOC-EERA’s proposed site permit condition 5.1 related to visual screening, DOC-EERA’s revisions to the MDNR’s proposed site permit condition related to lighting in addition to the standard site permit conditions Draft Site Permit contains adequate general conditions to address aesthetic impacts. Moreover, Section 4.3.8 (Aesthetics) of the draft site permit requires the Permittee to consider visual impacts from landowners and the local unit of government having zoning authority over the Project area.¹⁵⁶

4. Cultural values

129. The Project will not adversely impact or alter the work or leisure pursuits of residents in the Project area in such a way as to impact the underlying culture of the area. The project contributes to the growth of renewable energy and the transition from fossil-fuel plants such as the Sherco coal plant in Becker to solar generation and is likely to strengthen and reinforce this value in the area. At the same time, the development of the project will change the character of the area. The value residents put on the character of the landscape within which they live is subjective, meaning its relative value depends upon the perception and philosophical or psychological responses unique to individuals. Because of this, construction of the project might—for some residents—change their perception of the area’s character thus potentially eroding their sense of place.¹⁵⁷

5. Recreational resources

130. Recreational activities in the vicinity of the Project include watercourses, wildlife management areas (“WMAs”), Scientific and Natural Areas (“SNAs”), snowmobile trails, golf courses, and county and city parks.¹⁵⁸

¹⁵⁴ Ex. Xcel-118 (Xcel Reply Comments).

¹⁵⁵ DOC-EERA Comments, June 18, 2024, eDocket ID No. [20246-207783-01](#)

¹⁵⁶ Sample Site Permit at 5 (Nov. 27, 2023) (eDocket ID No. [202311-200753-01](#)).

¹⁵⁷ See Ex. DOC-227 at 41–42 (EA).

¹⁵⁸ Ex. DOC-227 at 48 (EA).

131. There are no WMAs or state parks within one mile of the land control area. The Clear Lake SNA is located approximately one-half mile northwest of Unit 3. Clear Lake Township Park and Goenner Park are both within one mile of the area of land control. The Mississippi River is located approximately 1,800 feet southwest of the site boundary at the nearest point. The nearest public water access point is approximately one-half mile west of Unit 3, northwest of County Road 4. Sherburne County Snowmobile Trail 209 crosses Units 1, 3 and 7 for a total of approximately 2.2 miles and also crosses the home run collection corridor.¹⁵⁹
132. DOC-EERA recommended adding a condition to the permit to require coordination with the local snowmobile trail association.¹⁶⁰
133. In terms of recreational resource impacts, the presence of the Project will not be dissimilar to the other man-made features such as the existing transmission lines, railroads, highways, municipal developments, Sherburne County Substation, and Sherco Solar 1 and 2 in this area. The inclusion of a site permit condition related to Sherburne County Trail #209, requires the Permittee to coordinate with local snowmobile associations to reroute the trail. Because direct long-term impacts are primarily aesthetic in nature, indirect long-term impacts to recreation are expected to be subjective and unique to the individual.¹⁶¹
134. Xcel Energy has coordinated with the Sherburne County Snowmobile Trail Association regarding reroutes for trails impacted by the Project currently under construction in Clear Lake and Becker townships and indicates it will continue to coordinate with the Sherburne County Snowmobile Trail Association to develop temporary and permanent reroutes for the Project.¹⁶²

6. Public services and infrastructure

135. The Project is located in a rural area, and the Project area is not serviced by city water supply or sanitary sewer. Residents in the Project area have private wells for domestic water needs and rely on private septic systems for wastewater.¹⁶³
136. Xcel Energy will not install any wells or septic systems for drinking water or sanitary services. The O&M facility will be located at the existing Sherco Generating Plant.¹⁶⁴
137. Electric and natural gas service in the Project area is provided by Xcel Energy. There are no pipelines in the Project area.¹⁶⁵
138. There are several major roadways accessing the Project area: U.S Highway 10 and Minnesota Highway 24. Route 388 of the Burlington Northern Santa Fe (“BNSF”) Railroad

¹⁵⁹ Ex. DOC-227 at 48 (EA).

¹⁶⁰ Ex. DOC-234 at 5 (Comments on EA); *see* Ex. DOC-227 at Appendix C at 15 (Draft Site Permit) (EA).

¹⁶¹ Ex. DOC-227 at 48 (EA).

¹⁶² Ex. DOC-227 at 48–49 (EA).

¹⁶³ Ex. DOC-227 at 49 (EA).

¹⁶⁴ Ex. DOC-227 at 50 (EA).

¹⁶⁵ Ex. DOC-227 at 49 (EA).

also passes near the Project area, but does not pass any portion of the site. There are seven Federal Aviation Administration (“FAA”)-registered airports in Sherburne County.¹⁶⁶

139. With the exception of minor field access or driveway changes, no changes to the existing public roads are anticipated. Access to the Project will be through locked gates off 70th Avenue SE, 80th Avenue SE (CR 58), CR 8, 90th Avenue SE, and CR 56 (87th Street and 100th Avenue). No impacts to roads are anticipated during the operation; negligible traffic increases would occur for maintenance.¹⁶⁷
140. Overall, construction-related impacts on traffic are the primary anticipated impact on public services and infrastructure and are expected to be minimal and associated with possible traffic delays. During operation, negligible traffic increases would occur for maintenance.¹⁶⁸
141. Section 4.3.22 (Roads) of the draft site permit addresses roads. Section 4.3.22 of the draft site permit requires the Permittee to inform road authorities of roads that will be used during construction and acquire necessary permits and approvals for oversize and overweight loads. Additionally, Section 4.3.5 (Public Services, Public Utilities, and Existing Easements) of the draft site permit requires the Permittee to minimize disruption to public services and public utilities and to restore service promptly if disrupted by the Permittee.¹⁶⁹
142. Impacts on water and sewer, railroads, electric utilities, and air safety are not anticipated.¹⁷⁰

7. Socioeconomics, property values, and environmental justice

143. The record demonstrates that the Project will result in both short and long-term benefits to the local economy.¹⁷¹ Additionally, Section 8.5 (Labor Statistic Reporting) of the draft site permit requires quarterly reports concerning efforts to hire Minnesota workers.¹⁷²
144. Project construction will provide temporary increases in revenue to the area through increased demand for lodging, food services, fuel, transportation, and general supplies. During construction, the Project is expected to create new local job opportunities for various trade professionals that live and work in the area. 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.¹⁷³
145. Xcel Energy has stated that procurement of construction resources will give preference to women, veteran, and minority owned business contractors, and Xcel Energy will establish

¹⁶⁶ Ex. DOC-227 at 50 (EA).

¹⁶⁷ Ex. DOC-227 at 51 (EA).

¹⁶⁸ Ex. DOC-227 at 49 (EA).

¹⁶⁹ Ex. DOC-227 at Appendix C at 10-11 (Draft Site Permit) (EA).

¹⁷⁰ Ex. DOC-227 at 51 (EA); Ex. XCEL-103 at 43 (Application Appendices A–E) (Appendix C, FAA Determination of No Hazard to Air Navigation).

¹⁷¹ Ex. DOC-227 at 53 (EA).

¹⁷² Ex. DOC-227 at Appendix C at 18-19 (Draft Site Permit) (EA)

¹⁷³ Ex. DOC-227 at 53 (EA).

a “Workforce and Training Development Program”, which will help provide utility industry skills and training to women and members of the black, indigenous and people of color communities.¹⁷⁴ Xcel Energy will utilize union labor to construct the Project; the use of union labor will ensure the payment of prevailing wages for construction workers. Xcel Energy estimates that construction of the Project will provide approximately \$62.5 million in wages from nearly 490 union construction jobs, in addition to opportunities for sub-contracting to local contractors for gravel, fill, and civil work.¹⁷⁵

146. The EA concluded that widespread negative impacts to property values are not anticipated, however, it is possible that individual property values might be negatively impacted. Factors relevant to property values can also be mitigated through reducing aesthetic impacts and future encumbrances through proper siting, best management practices (“BMPs”) (restoration and vegetation management) and screening the site (berms, deer fencing, and vegetation).¹⁷⁶
147. Section 5.1 of the Draft Site Permit is a special condition requiring Xcel Energy to develop a site-specific Visual Screening Plan to mitigate impacts on neighboring landowners.¹⁷⁷
148. Xcel Energy continues to work closely with neighboring landowners to mitigate impacts to the greatest extent possible.¹⁷⁸
149. Impacts to communities of environmental justice concern are not anticipated to occur as a result of the Project.¹⁷⁹
150. In general, it is anticipated that overall socioeconomic impacts associated with the Project will be positive; union jobs will be created; wages will be paid, and expenditures will be made to local businesses and landowners during the Project’s construction and operation.¹⁸⁰

8. Zoning and land use

151. Pursuant to Minn. Stat. § 216E.10, subd. 1, a site permit issued by the Commission, “shall be the sole site or route approval required to be obtained by the utility. Such permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.” Therefore, Xcel Energy is not required to apply to local zoning authorities for additional building or land use permits or approvals for the Project.¹⁸¹
152. The Project is located within three zoning jurisdictions: Sherburne County, Clear Lake Township, and the City of Clear Lake. Although portions of Units 1 and 2 are within the

¹⁷⁴ Ex. DOC-227 at 53 (EA); Ex. XCEL-101 at 53 (Application).

¹⁷⁵ Ex. DOC-227 at 53 (EA).

¹⁷⁶ Ex. DOC-227 at 47 (EA).

¹⁷⁷ Ex. DOC-227 at Appendix C (Draft Site Permit) (EA).

¹⁷⁸ Ex. XCEL-115 at 4 (Testimony of P. Gitzen).

¹⁷⁹ Ex. DOC-227 at 53 (EA).

¹⁸⁰ Ex. DOC-227 at 53 (EA).

¹⁸¹ Ex. DOC-227 at 31, 44 (EA); Ex. XCEL-101 at 58 (Application).

City of Clear Lake, the preliminary Project layout does not place any solar panels within the city limits.¹⁸²

153. Sherburne County exercises zoning authority over land uses within Clear Lake Township. Sherburne has a solar energy ordinance in its zoning ordinances. As noted in Sherburne County Zoning Ordinance Section 17 (General Development Regulations), Subdivision 17 (Solar Energy Systems and Solar Energy Farms), development of a solar farm (large solar energy systems) is an interim permitted use within much of the county, including Clear Lake Township. Solar farms are not permitted within the Mississippi and Rum Scenic and Recreational River Districts.¹⁸³
154. Portions of Units 1 and 2, as well as Corridor U02, also fall within the Sherburne County Urban Expansion District. The Urban Expansion District includes locations on the fringes of incorporated cities for unsewered residential, commercial, or industrial developments.¹⁸⁴ Development in the Urban Expansion District is intended to be located so as to facilitate potential future services (e.g., public sewer, water systems) while also accommodating a semi-rural development pattern with availability for safe on-site sewage systems and private wells.¹⁸⁵ As such, development of a solar farm within that district would not be a permitted use if permitted locally instead of through the Commission's site permitting process. Despite this, Clear Lake Township is supportive of the Project, and the City of Clear Lake has indicated that they do not object to development of the Project within the Urban Expansion District.¹⁸⁶
155. Sherburne County also has a Shoreland Overlay District that is comprised of land located within 1,000 feet from the ordinary high-water level of natural environment lakes listed in the Sherburne County Shoreland Ordinance. Portions of Units 2, 8, and 9, as well as Corridors U02, U09, and the Collection Corridor Homerun are located within the Shoreland Overlay District. Xcel Energy will apply the Shoreland Ordinance Structure Setback of 150 feet from the ordinary high-water mark of natural environment lakes subject to the Shoreland Ordinance, which is consistent with other permitted uses in the Shoreland Overlay District.¹⁸⁷
156. The Project generally complies with the setbacks within each of these three zoning authorities and districts, and Xcel Energy will meet all setback requirements for Sherburne County, the City of Clear Lake, and Clear Lake Township by following the most restrictive setback requirements from each zoning district.¹⁸⁸
157. The primary land cover category within the Project area is cultivated crops (92.9 percent). The remainder of the Project area consists of hay/pasture (2.4 percent), low intensity developed land (1.9 percent), and developed open space (1.6 percent), developed medium

¹⁸² Ex. DOC-227 at 44 (EA).

¹⁸³ Ex. DOC-227 at 44 (EA).

¹⁸⁴ Sherburne County Zoning Ordinance § 9 – Urban Expansion (August 2015).

¹⁸⁵ Sherburne County Zoning Ordinance § 9 – Urban Expansion (August 2015).

¹⁸⁶ Ex. XCEL-101 at 59–60 (Application).

¹⁸⁷ Ex. DOC-227 at 45 (EA); Ex. XCEL-101 at 60 (Application).

¹⁸⁸ Ex. XCEL-101 at 28 (Application).

intensity (0.5 percent), emergent herbaceous wetlands (0.3 percent), and less than 0.1 percent each of deciduous forest, open water, mixed forest, shrub/scrub, developed high intensity, woody wetland, and barren land cover.¹⁸⁹

158. Cultivated crop land will be converted from an agricultural use to solar energy use for the life of the Project. The conversion of agricultural land to a solar facility within the Project Footprint will have some impact on the rural character of the surrounding area or Sherburne County. The extent of the impact is a matter of perception—transitioning from agricultural to energy use can be viewed as a conversion from one type of industrial land use to another. But conversion of farmland to energy production could also be viewed as a negative impact to agricultural production. This Project will take farmland out of production for the life of the Project, representing approximately 1.5 percent of existing agricultural land in Sherburne County.¹⁹⁰
159. Xcel Energy voluntarily prepared an Agricultural Impact Mitigation Plan (“AIMP”) with respect to agricultural land within the Project. This AIMP has incorporated BMPs into siting procedures and identifies pre-construction and construction methods to avoid and minimize impacts to soil and site productivity such that pre-construction agricultural productivity (anticipated use, appropriate management) is rapidly returned to the site following decommissioning. The Decommissioning Plan and Vegetation Management Plan (“VMP”) were also developed in concert with the AIMP to maintain the land in a condition to allow for conversion back to agricultural use at the end of the Project’s life. The VMP addresses best practices to conserve and manage soil erosion and decompaction during site restoration and operations. The Decommissioning Plan identifies best practices to ensure rapid and effective conversion back to agricultural land at the end of Project life.¹⁹¹
160. The draft site permit includes several conditions to address agricultural mitigation and soil related impacts, including requirements that Xcel Energy develop an AIMP and a VMP that promote measures to stabilize soils and improve soil health, preserve topsoil, control noxious weeds and invasive species, maintain the existing drainage conditions, and repair drain tile.¹⁹²
161. After the useful life of the Project, the development area could be restored to agricultural use or other planned use.¹⁹³

B. Public health and safety

162. Construction and operation of the Project will have minimal impacts on the security and safety of the local populace. Xcel Energy is gathering information to coordinate with all emergency and non-emergency response teams for the Project, including law enforcement agencies, local fire departments, ambulance services, and 911 services. Any accidents that

¹⁸⁹ Ex. DOC-227 at 43–44 (EA).

¹⁹⁰ Ex. DOC-227 at 61–62 (EA).

¹⁹¹ Ex. XCEL-101 at 61 (Application).

¹⁹² Ex. DOC-227 at 62–63 (EA); Ex. DOC-227 at Appendix C § 4.3 (Draft Site Permit) (EA).

¹⁹³ Ex. DOC-227 at 43 (EA); Ex. XCEL-101 at 38 (Application).

might occur during construction of the Project would be handled through local emergency services.¹⁹⁴

163. The sources of EMFs related to the Project include electrical collection lines and from the transformers installed at each inverter and collector substations. EMFs from electrical collection lines and transformers dissipates rapidly with distance from the source and generally speaking, higher voltage electrical lines produce higher levels of EMFs at the source before dissipating with distance. There is no federal standard for electric fields, however, the Commission has imposed a maximum electric field limit of eight kV/m measured at one meter (3.28 feet) above the ground. There are presently no Minnesota regulations pertaining to magnetic field exposure, however, the internationally accepted guideline for the general public exposed to magnetic fields is 833 milliGauss.¹⁹⁵
164. Levels of EMFs from the Project will be considerably below acceptable guidelines and no health impacts from EMFs are anticipated.¹⁹⁶
165. All inverters have been placed more than 150 feet within the Project boundary, and EMF levels return to background levels 150 feet from the inverters. Accordingly, the Project will not have an impact on levels of EMFs outside the fenced portion of the Project area.¹⁹⁷
166. All electrical components in the Project, including inverters and transformers, will be grounded in accordance with the National Electrical Safety Code (“NESC”). Soil resistivity measurements will be taken on site as part of the Project’s geotechnical analysis, and that data will be used to help design grounding systems.¹⁹⁸
167. Established industry safety procedures will be followed during and after construction of the Project; these include clear signage during all construction activities, and fencing of all Project facilities to prevent public access.¹⁹⁹
168. No significant impacts to public health and safety are expected to result from construction and operation of the Project. Further, the draft site permit contains conditions to address public health and safety. Section 4.3.29 (Public Safety) of the draft site permit addresses public safety, including landowner educational materials, appropriate signs, fencing and gates, etc. Section 8.11 (Emergency Response) requires permittees file an emergency response plan with the Commission prior to operation. Section 8.12 (Extraordinary Events) requires disclosure of extraordinary events, such as fires, etc.²⁰⁰

C. Land-based economies

1. Agriculture

¹⁹⁴ Ex. XCEL-101 at 63 (Application).

¹⁹⁵ Ex. XCEL-101 at 65 (Application).

¹⁹⁶ Ex. DOC-227 at 59 (EA); Ex. XCEL-101 at 70 (Application).

¹⁹⁷ Xcel Energy Response to Comments (May 29, 2024) (eDocket ID No. [20245-207200-01](#)).

¹⁹⁸ Ex. DOC-227 at 31 (EA); Ex. XCEL-101 at 46 (Application).

¹⁹⁹ Ex. XCEL-101 at 45 (Application).

²⁰⁰ See Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

169. Approximately 1,300 acres of cultivated agricultural land lie within the Project area, which constitutes approximately 1.5 percent of the approximately 85,044 acres of farmland in Sherburne County.²⁰¹
170. No prime farmland is present within the Project footprint. Approximately 20 acres of soils are classified as “Farmland of Statewide Importance.”²⁰²
171. Agricultural production would continue in the surrounding areas during construction and operation of the Project. Potential impacts to agricultural producers are anticipated to be minimal—lost farming revenues will be offset by easement and lease agreements. A negligible loss of farmland in Sherburne County would occur for the life of the Project. The Project will not impact prime farmland. Potential impacts are localized and unavoidable but can be minimized.²⁰³
172. The draft site permit includes several conditions to address agricultural mitigation and soil related impacts, including requirements that Xcel Energy develop an AIMP and a VMP that promote measures to stabilize soils and improve soil health, preserve topsoil, control noxious weeds and invasive species, maintain the existing drainage conditions, and repair drain tile.²⁰⁴

2. Forestry

173. There are no forestry operations within the Project footprint, so impacts to forestry operations will not occur.²⁰⁵ Some tree clearing is anticipated in the interior portions of the solar facility, with exact acreages to be determined by final engineering. The preliminary site design attempts to minimize tree clearing.²⁰⁶

3. Tourism

174. No impacts on tourism are anticipated and thus no mitigation measures are proposed.²⁰⁷

4. Mining

175. There are no gravel pits within the area of land control, though there is some mining in the area, approximately one mile east of Unit 9. No impacts to mining are expected, and no mitigation is proposed.²⁰⁸

D. Archaeological and historic resources

²⁰¹ Ex. DOC-227 at 54 (EA).

²⁰² Ex. DOC-227 at 61–62 (EA).

²⁰³ Ex. DOC-227 at 61 (EA).

²⁰⁴ Ex. DOC-227 at 62–63 (EA); Ex. DOC-227 at Appendix C § 4.3 (Draft Site Permit) (EA).

²⁰⁵ Ex. DOC-227 at 91 (EA).

²⁰⁶ Ex. DOC-227 at 78 (EA).

²⁰⁷ Ex. DOC-227 at 48–49 (EA) (discussing only impacts to recreation).

²⁰⁸ Ex. DOC-227 at 91 (EA).

176. Minnesota Rule 7850.4100, subp. D, requires consideration of the effects of the Project on historic and archaeological resources.
177. Xcel Energy Conducted a Phase Ia literature review to identify previously recorded archeological and historic architectural resources in conjunction with the SHPO. The review identified one artifact within the site, a lead bullet in Unit 5. The review also identified one cemetery, the Lee Pioneer Burial, adjacent to the western border of Unit 5. Four additional sites have been recorded within one mile of the land control area.²⁰⁹
178. Eighty-three historic/architectural resources were located within one mile of the area of land control, none within the site.²¹⁰
179. The SHPO concurred with Xcel Energy's environmental contractor's determination that the Project will have no adverse effects to historic properties listed in, eligible for, or potentially eligible for listing in the National Register of Historic Places.²¹¹
180. The MLBO conducted a site visit of the Project area on November 8, 2023 and reviewed the archaeology report prepared for the Project. Based on that information, the MLBO Tribal Historic Preservation Officer has found no archaeological or cultural issue at the time with the Project. However, the MLBO encourages Xcel Energy to utilize tribal monitors during construction of the Project to minimize any unanticipated discoveries.²¹²
181. Section 5.3 of the draft site permit requires the Permittee to prepare an Unanticipated Discoveries Plan that will outline the steps to be taken if previously unrecorded cultural resources or human remains are encountered during construction.²¹³ If archaeological resources are discovered during construction, ground-disturbing activity will be halted in that location, the SHPO will be notified, and appropriate measures will be developed in conjunction with SHPO to assess and protect the resource. Additionally, if unanticipated human remains or burial resources are discovered during construction, they will be reported to the State Archaeologist per Minn. Stat. § 307.08 and construction will cease in that area until adequate mitigation measures have been developed.²¹⁴
182. Xcel Energy will also continue to coordinate with the MLBO to address the MLBO's specific concerns about potential impacts on unanticipated discoveries of cultural resources. Xcel Energy will also coordinate with MLBO to design a plan for Tribal monitoring that addresses MLBO's concerns, considers MLBO staff availability, and does not unduly delay site preparation and construction.²¹⁵ DOC-EERA proposed a permit condition requiring the permittee to engage a tribal monitor.²¹⁶

²⁰⁹ Ex. DOC-227 at 64 (EA).

²¹⁰ Ex. DOC-227 at 64 (EA).

²¹¹ Ex. DOC-227 at 64 (EA).

²¹² Ex. PUC-314 (Mille Laacs Band of Ojibwe Comments regarding EA).

²¹³ See Reply comments; Ex. DOC-227 at Exhibit C§ 5.3 (Draft Site Permit) (EA) (Draft Site Permit requires preparation of an Unanticipated Discoveries Plan).

²¹⁴ Ex. DOC-227 at 64 (EA).

²¹⁵ Ex. XCEL-117 (Response to Mille Laacs Band of Ojibwe Comment).

²¹⁶ DOC-EERA Comments, June 18, 2024, eDocket ID No. [20246-207783-01](#)

Tribal Monitor

Prior to any construction, the Permittee shall identify an independent third party Tribal Monitor to observe construction activities and address concerns related to observed or suspected Tribal Cultural Resources or human remains. Funding for the Tribal Monitor shall be provided by the Permittee.

183. The record demonstrates that the Project will not cause adverse impacts to archaeological and historic resources. Further, Section 4.3.23 (Archaeological and Historic Resources) of the draft site permit addresses archaeological and historic resources. If previously unidentified archaeological sites are found during construction, the Permittee would be required to stop construction and contact SHPO and the state archaeologist to determine how best to proceed. Xcel Energy will also work with Tribal Historical Preservation Offices, consistent with plans developed in conjunction with those offices. Ground disturbing activity will stop and local law enforcement will be notified should human remains be discovered.²¹⁷

E. Natural environment

1. Surface waters

184. The Project is located in the Upper Mississippi-Crow-Rum Watershed Basin. There are no lakes, rivers, or other watercourses that cross the Project site, although there are several surface waterbodies in the Project area. The nearest Public Waters Inventory (“PWI”) river is the Mississippi River, located approximately 0.3 mile to the south at its nearest point (Unit 3). The surface waters within the Project footprint are limited to three PWI wetlands.²¹⁸
185. The Project is designed to avoid direct impacts to surface waters by avoiding placement of Project components such as access roads, solar arrays, inverters, or collector lines in surface waters. Construction of the Project creates a potential for indirect impacts if sediment or fugitive dust created by excavation, grading, vegetation removal, and construction traffic reaching nearby surface waters. But overall due to the establishment of perennial vegetation at the solar facility, the Project is expected to have a long-term positive impact on water quality.²¹⁹

2. Wetlands

186. Applicant assessed the potential for wetlands within the Project footprint through desktop reviews of available resource (i.e., National Wetlands Inventory (“NWI”) data, National Hydrography Dataset Mapping (“NHD”), the PWI, Federal Emergency Management Agency (“FEMA”) floodplain mapping, aerial photography, hydric soils maps, LiDAR,

²¹⁷ Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

²¹⁸ Ex. DOC-227 at 73 (EA).

²¹⁹ Ex. DOC-227 at 74 (EA).

and digital elevation models); this was followed by a formal wetland delineation within the Project area.

187. Although the NWI identified approximately 23.06 acres freshwater emergent and freshwater pond wetland, the preliminary site layout for the solar facility avoids locating solar arrays and associated facilities in wetlands.²²⁰ Accordingly, wetland impacts are not anticipated.

3. Groundwater

188. Project infrastructure is not expected to affect the use of existing water wells because the breadth of work does not entail digging deeper than 15 feet for the racking piers.²²¹
189. The Project area is characterized by buried sand aquifers and relatively extensive surficial sand plans. Pollution sensitivity of near surface materials in the Project area ranges from “very low” to “moderate”, with the highest percentage largely in the “very low” category. This means that the Project area is generally expected to have “very low” groundwater pollution sensitivity where contaminants from the land surface would not reach groundwater for months to a year.²²²
190. If damage occurs to the PV panels, it is important that materials from the panels do not contaminate surface or groundwater sources. TCLP testing is the EPA-approved method for determining whether a hazardous substance is likely to leach from an object, like solar panels, into the ground, surface water or groundwater. Xcel Energy provided a TCLP testing report completed by an independent testing and certification lab, which showed that it is unlikely that hazardous materials from solar panels will leach from the panels Xcel Energy plans to use for the Project.²²³
191. Direct impacts to groundwater are generally associated with construction, for example, structure foundations that could penetrate shallow water tables or groundwater usage. Indirect impacts could occur through spills or leaks of petroleum fluids or other contaminants that contaminate surface waters and soil and which could ultimately contaminate groundwater. The disturbance of soil and vegetative cover could affect water quality in groundwater resources. Impacts to groundwater resources, including aquifers and the Mississippi River, are not anticipated as water supply needs will be limited.²²⁴
192. Because Xcel Energy is removing land from agricultural production and replacing it with native species, Xcel Energy anticipates that groundwater quality could improve over time by reducing the amount of Nitrogen fertilizer applied in the area.²²⁵

²²⁰ Ex. DOC-227 at 77 (EA).

²²¹ Ex. DOC-227 at 67 (EA).

²²² Ex. DOC-227 at 67 (EA).

²²³ Ex. DOC-227 at 67–68 (EA); Ex. XCEL-114 (Testimony of E. Heine); Ex. XCEL-118 (Xcel Reply Comments).

²²⁴ Ex. DOC-227 at 69.

²²⁵ Ex. XCEL-114 (Testimony of E. Heine).

4. Soils

193. None of the soils within the Project are considered prime farmland. Approximately one percent of soils are considered farmland of statewide importance. Topsoil in the land control area ranges from 4 – 18 inches thick, is not high in organic matter and is susceptible to wind erosion. The soils within the site generally have a low susceptibility to compaction or rutting during wet conditions due to the sandy texture of the soil.²²⁶
194. Primary impacts to soils include compaction from construction equipment, soil profile mixing during grading and pole auguring, rutting from tire traffic, and soil erosion. Impacts to soils are likely to be greatest with the portion of the electrical collection system installed below-ground. Isolated moderate to significant impacts associated with high rainfall events could occur.²²⁷
195. Because the soil at the solar facility would be covered with native perennial vegetation for the operating life of the Project, soil health would likely improve over the operating life of the Project.²²⁸
196. Applicant committed to the development and implementation of a VMP that will result in revegetation of the site that will meet the standards established in the Board of Water and Soil Resources (“BWSR”) Habitat Friendly Solar Program. Xcel Energy’s VMP will establish stable ground cover, reduce erosion, reduce runoff, and improve infiltration. Consultation with agencies participating in the Vegetation Management Plan Working Group (“VMPWG”) will be ongoing and guidance from the agencies will be incorporated, as applicable.²²⁹
197. Impacts to soils are anticipated to be temporary and minor and would be mitigated through permit conditions, including requirements that Xcel Energy: develop a Stormwater Pollution Prevention Plan (“SWPPP”) that complies with the MPCA rules and guidelines; protect topsoil; engage in site restoration and management practices that enhance soil retention and reduce storm water runoff and erosion; and is develop an AIMP and a VMP.²³⁰

5. Vegetation

198. The majority of the land within the Project area is currently comprised of cultivated agricultural land.²³¹

²²⁶ Ex. DOC-227 at 71 (EA).

²²⁷ Ex. DOC-227 at 72 (EA).

²²⁸ Ex. DOC-227 at 72 (EA).

²²⁹ Ex. XCEL-101 at 90 (Application).

²³⁰ Ex. DOC-227 at 72 (EA); Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

²³¹ Ex. DOC-227 at 78 (EA).

199. Agricultural land will be converted from an agricultural use to solar energy production for the life of the Project. These areas will be returned to their pre-construction land use after operation of the Project.²³²
200. Agricultural land within the Project footprint (outside of the inverter skids and access roads, which will be converted to developed land and impervious surfaces, totaling approximately 78.4 acres) will be converted to perennial native vegetative cover with the goal of creating and operating a certified pollinator-friendly solar facility, based on BWSR's Minnesota Habitat Friendly Solar Program guidance. This will result in a net increase in vegetative cover for the life of the Project.²³³
201. The record demonstrates that Applicant has taken steps to avoid and minimize impacts to vegetation. Further, the draft site permit contains adequate conditions to monitor and mitigate the Project's potential impacts on vegetation. Section 4.3.17 requires the preparation of a VMP prior to construction. Section 4.3.18 requires that Xcel Energy develop an AIMP; and section 4.3.15 requires Xcel Energy to minimize the number of trees removed and to leave existing low growing species in the ROW undisturbed, to the extent possible, or to replant to blend in with adjacent areas following construction.²³⁴

6. Wildlife

202. Given that the proposed site is comprised primarily of agricultural lands, occurrence of wildlife within the Project is limited to those species well adapted to human disturbance and agricultural land cover; impacts to the current wildlife inhabiting the area is expected to be short- and long- term and minimal.²³⁵
203. The Project may affect wildlife that occur in and adjacent to the facilities. Because the Project area does not provide critical habitat, this should not impact life cycle functions such as nesting.²³⁶ Construction impacts would be associated with habitat conversion and vehicle collisions, while operational impacts would be associated with vehicle collisions. Revegetating a solar project with seed mixes that enhance wildlife habitat can create a beneficial impact to wildlife.²³⁷
204. Several conditions of the draft site permit specify measures that will minimize impacts to wildlife: Section 4.3.16 requires use of "site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators." Section 4.3.31 requires Xcel Energy to coordinate with MDNR to ensure the fence minimizes impacts to wildlife. Section 8.12 requires Xcel Energy to report "any wildlife injuries and fatalities." Sections 5.4, 5.5 and 5.6 of the draft site permit require implementation of BMPs to minimize impacts to northern long eared bat, Blanding's turtle and loggerhead shrike, respectively. Section 5.7 of the draft site permit

²³² Ex. DOC-227 at 78 (EA); Ex. XCEL-101 at 38 (Application).

²³³ Ex. DOC-227 at 78 (EA); Ex. XCEL-101 at 38 (Application).

²³⁴ Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

²³⁵ Ex. DOC-227 at 79 (EA).

²³⁶ Ex. DOC-227 at 80 (EA).

²³⁷ Ex. XCEL-101 at 91 (Application).

requires Xcel Energy to file, prior to the pre-construction meeting any permit authorizing removal of bald eagle nests.

205. DOC-EERA and the MDNR also requested the inclusion of the following special permit condition requiring the use of wildlife-friendly erosion control:

Wildlife-Friendly Erosion Control

The Permittee shall use only “bio-netting” or “natural netting” types of erosion control materials and mulch products without synthetic (plastic) fiber additives.²³⁸

Xcel Energy did not object to inclusion of this special permit condition.²³⁹

206. Section 4.3.31 of the draft site permit requires Xcel Energy to coordinate with DOC-EERA and the MDNR in the preparation of a final fence design.²⁴⁰

Xcel Energy did not object to inclusion of this special permit condition.²⁴¹

207. The record demonstrates that Applicant has taken steps to avoid and minimize impacts to wildlife. Further, the draft site permit, as proposed to be modified by the MDNR and DOC-EERA, contains general conditions that adequately protect wildlife.

7. Air quality

208. Emissions of air pollutants will occur during construction and operation of new infrastructure for the Project.²⁴²

209. Minimal intermittent air emissions are expected during construction of the Project. Air emissions associated with construction are highly dependent upon weather conditions and the specific activity occurring. For example, traveling to a construction site on a dry gravel road will result in more fugitive dust than traveling the same road when wet.²⁴³

210. Xcel Energy will water exposed surfaces, cover disturbed areas, and reduce speed limits on-site, which are all standard construction practices. Moreover, the AIMP identify construction best management practices related to soils and vegetation that will help to mitigate against fugitive dust emissions. Several sections of the draft site permit indirectly mitigate impacts to air quality, including sections related to soils, vegetation removal, restoration, and pollution and hazardous wastes.²⁴⁴ The construction team has committed to not using products that contain chloride for dust-control on site and to planting cover

²³⁸ Xcel Energy Response to Comments (May 29, 2024) (eDocket ID No. [20245-207200-01](#))

²³⁹ Ex. Xcel-118 (Xcel Reply Comments).

²⁴⁰ Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

²⁴¹ Ex. Xcel-118 (Xcel Reply Comments).

²⁴² Ex. DOC-227 at 65.

²⁴³ Ex. DOC-227 at 66.

²⁴⁴ Ex. DOC-227 at 67.

crops, which will further minimize dust.²⁴⁵ MDNR requested a permit condition requiring the permittee to avoid using dust control methods containing chloride. DOC-EERA recommended a special condition that has been used in other site and route permits recently issued by the Commission.²⁴⁶

Dust Control

The Permittee shall minimize and avoid, if possible, the use of chloride-based dust control chemicals (i.e., calcium chloride, magnesium chloride).

211. Exhaust emissions will be minimized by keeping vehicles and equipment in good working order, and not running equipment unless necessary.²⁴⁷

F. Rare and unique natural resources

212. According to the review of the USFWS’s Information for Planning and Consultation (“IPaC”) and Natural Heritage Information System (“NHIS”) data and coordination with MDNR, there is one federally-listed species that may occur in Sherburne County, northern long-eared bat (“NLEB”). Additionally, the tri-colored bat listed as proposed endangered, and the monarch butterfly, a federal candidate species, were identified as potentially occurring in Sherburne County. Whooping crane appears on the IPaC list of species as part of a Non-essential Experimental Population. Although the bald eagle is no longer a federally listed threatened species, disturbances to the bald eagle or their nests are regulated under the Bald and Golden Eagle Protection Act, and as such, were included in this review.²⁴⁸
213. During their active season (April through October), NLEB may roost, forage and travel in trees in the vicinity surrounding the Project. During their active season (April through September), tri-colored bats may roost in trees within the Project area. It is highly likely that suitable plant resources for monarch are present in the Project area. There is little to no suitable nesting, foraging, or roosting habitat for whooping crane in the Project area, aside from agricultural fields that whooping cranes may use to feed on waste grain. One in-use bald eagle nest was identified in the Project area. An alternate nest is also present approximately 100 feet from the in-use nest.²⁴⁹
214. In the event that the Project will affect the bald eagle nest, draft site permit Section 5.7 requires Xcel Energy to show that it has completed all necessary authorizations to remove any eagle nest, if necessary:

Bald Eagle

²⁴⁵ Ex. XCEL-113 (Reply Comment on Scoping); see MDNR Comments (May 22, 2024) (eDocket ID No. [20245-206974-01](#)).

²⁴⁶ DOC-EERA Comments, June 18, 2024, eDocket ID No. [20246-207783-01](#)

²⁴⁷ Ex. DOC-227 at 66.

²⁴⁸ Ex. DOC-227 at 83–86.

²⁴⁹ Ex. DOC-227 at 84 (EA); Ex. XCEL-101 at 98 (Application).

At least 14 days prior to the pre-construction meeting, the Permittee shall file with the Commission documentation authorizing any bald eagle nest removal.

215. Construction of the Project may include tree clearing on the interior of the site (wind rows between agricultural fields). Based on a review of NLEB NHIS records, there are no documented NLEB maternity roost trees within 150 feet of the Project area or documented hibernacula within 0.25 mile of the Project area. Although there are no records of NLEB, the species may still be present in the Project area. The Permittee will be responsible to obtain any federal permits (USFWS, Section 7 consultation) associated the NLEB prior to construction. Additionally, Applicant will avoid tree clearing during the NLEB pup season (June and July). If practicable, tree clearing will occur outside of the entire NLEB active season of April 1 to October 31.²⁵⁰
216. Draft site permit condition 5.4 requires Xcel Energy to comply with all federal guidance and requirements in effect regarding NLEB:

5.4 Northern Long-eared Bat

Project construction, the Permittees shall comply with the U.S. Fish and Wildlife Service guidance and requirements in effect regarding NLEB, including tree clearing restrictions if applicable.²⁵¹

217. Four state-listed threatened or endangered species (loggerhead shrike, butternut, seaside three-awn, and Blanding's turtle), and three state-listed special concern species (black sandshell, red-shouldered hawk, and Hill's thistle) were identified within one mile of the Project area.²⁵²
218. Habitat for state-listed species is limited in the Project site to potential habitat for loggerhead shrike (state-listed endangered) and Blanding's turtle (state-listed threatened). Habitat for the loggerhead shrike may be present within the Project are, given the predominance of agriculture along with the isolated rows of trees along the edges of agricultural fields and roads. The Blanding's turtles may occur in wetland complexes and sandy adjacent uplands near the solar site. The Project site lacks suitable habitat for black sandshell (mussels that require rivers), red-shouldered hawk (large tracts of deciduous forest that occur along the Mississippi River), Rock Sandwort (bedrock outcrops), and seaside three-awn (sand savannas). A field visit in May 2023 found the Project areas to be dominated by smooth brome and other non-native, invasive species, making the presence of Hill's thistle possible, but unlikely.²⁵³
219. Tree-nesting birds such as the loggerhead shrike may be affected during tree clearing if nests with eggs or chicks are present in the trees that are cleared. Loggerhead shrike in the area are acclimated to human activity and equipment because of the predominant agricultural land-use at the site and surrounding areas. Xcel Energy will adhere to

²⁵⁰ Ex. XCEL-101 at 105 (Application).

²⁵¹ Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

²⁵² Ex. DOC-227 at 85–86 (EA).

²⁵³ Ex. DOC-227 at 85–86 (EA).

recommendations outlined in MDNR’s December 11, 2020 letter (Correspondence# ERDB 20210125), which applied to portions of the Project area previously reviewed as part of the Sherco Solar Project. Specifically, any tree/shrub removal will be conducted outside of the species nesting season (April 1 to July 31). Any loggerhead shrike sightings will be reported to the MDNR. Overall, impacts on loggerhead shrike due to the construction and operation of the Project are anticipated to be negatable. Suitable habitat for the seaside three-awn (sand savannas, sand prairies, dunes) is not present within the Project site; impacts to these species are not probable. As suitable habitat may be present for the Blanding’s turtle in the vicinity of the Project site, Applicant will implement the BMPs outlined in the MDNR’s consultation.²⁵⁴

220. Draft site permit condition 5.6 requires Xcel Energy to mitigate impacts to Loggerhead Shrike:

Loggerhead Shrike

The Permittee shall avoid tree and shrub removal within suitable Loggerhead Shrike habitat during the April through July breeding season. If tree or shrub removal will occur during the breeding season, the Permittees shall coordinate with DNR to identify potentially suitable habitat and ensure that a qualified surveyor inspects the trees/shrubs for active nests prior to removal.²⁵⁵

221. Draft site permit condition 5.5 requires Xcel Energy to mitigate impacts to Blanding’s turtle

Blanding’s Turtle

The Permittee shall initiate the following measures during construction to avoid and or mitigate for impacts to the Blanding’s turtle during construction:

- Avoid wetland impacts during hibernation season, between October 15th and April 15th, unless the area is unsuitable for hibernation
- Provide DNR’s most current Blanding’s turtle flyer to all contractors working in the area.
- Monitor for turtles during construction and report any sightings to the DNR Nongame Specialist.
- If turtles are in imminent danger, they must be moved by hand out of harm’s way, otherwise they are to be left undisturbed.²⁵⁶

G. Future development and expansion

222. Based on Xcel Energy’s clean energy transition, Xcel Energy will cease operations the entire Sherco Generating Plant by 2030. Ceasing operations, coupled with existing interconnecting infrastructure, available transmission capacity, and additional agricultural land adjacent to the Sherco Generating Plant provide opportunity for additional solar

²⁵⁴ Ex. DOC-227 at 85–86 (EA); Ex. XCEL-101 at 106–107.

²⁵⁵ Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

²⁵⁶ Ex. DOC-227 at Exhibit C (Draft Site Permit) (EA).

development in the Project vicinity. As such, Xcel Energy is independently seeking additional development opportunities in this area; however, none of those opportunities are part of the Project or anticipated to be constructed within the same 12-month period as the Project. Xcel Energy does not anticipate sharing any infrastructure with a future project, except that a future project may elect to build a substation adjacent to the previously permitted Sherco Solar West Substation.²⁵⁷

III. SITE PERMIT CONDITIONS

223. The Draft Site Permit includes a number of proposed permit conditions, many of which, together with additional special permit conditions proposed by the Applicant, have been discussed above. The conditions apply to site preparation, construction, cleanup, restoration, operation, maintenance, decommissioning, and other aspects of the Project.
224. Many of the conditions contained in the Draft Site Permit were established as part of the site permit proceedings for other solar projects permitted by the Commission. Comments received by the Commission in other proceedings have been considered in the development of the Draft Site Permit for this Project.

NOTICE

225. Minnesota statutes and rules require Applicant to provide certain notice to the public and local governments before and during the Application process.²⁵⁸
226. Applicant provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.²⁵⁹
227. Minnesota statutes and rules also require the Commission and DOC-EERA to provide certain notice to the public throughout the Site and Route Permit processes.²⁶⁰
228. The Commission and DOC-EERA provided the notice in satisfaction of Minnesota statutes and rules.²⁶¹

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²⁵⁷ Ex. XCEL-101 at 17–18 (Application).

²⁵⁸ Minn. Stat. § 216E.03, subds. 3a, 4; Minn. R. 7850.2100, subps. 2, 4.

²⁵⁹ See Ex. XCEL-100 (Notice of Application Under Alternative Permitting Process); Ex. XCEL-116 (Notice of Filing SP Application); Ex. PUC-300 (Notice of Amended Comment Period); Ex. DOC-202 (Notice of Public Information and EA Scoping Meeting); Ex. XCEL-116 (Newspaper Affidavit of Publication - Notice of Public Information and EA Scoping Meeting); Ex. PUC-304 (Notice of Public Hearings and Availability of EA); Ex. DOC-232 (EQB Monitor - Notice of Public Hearings and Availability of EA), Newspaper Affidavit of Publication - Notice of Public Hearings and Availability of EA (June 4, 2024) (eDocket ID No. [20246-207390-01](#)).

²⁶⁰ Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, subp. 2; Minn. R. 7850.3700, subps. 2, 3, and 6.

²⁶¹ See Ex. PUC-300 (Notice of Amended Comment Period); Ex. DOC-202 (Notice of Public Information and EA Scoping Meeting); Ex. XCEL-116 (Newspaper Affidavit of Publication - Notice of Public Information and EA Scoping Meeting); Ex. PUC-304 (Notice of Public Hearings and Availability of EA); Ex. DOC-232 (EQB Monitor - Notice of Public Hearings and Availability of EA), Newspaper Affidavit of Publication - Notice of Public Hearings and Availability of EA (June 4, 2024) (eDocket ID No. [20246-207390-01](#)).

229. The EA process is the alternative environmental review approved by the Minnesota Environmental Quality Board for LEPGPs and high voltage transmission lines. The Commission is required to determine the completeness of the EA. An EA is complete if it and the record address the issues and alternatives identified in the Scoping Decision.²⁶²
230. The evidence in the record demonstrates that the EA is adequate because the EA and the record created at the public hearing and during the subsequent comment period address the issues and alternatives raised in the Scoping Decision.
231. Any of the foregoing Findings more properly designated Conclusions of Law are hereby adopted as such.

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

CONCLUSIONS OF LAW

232. Any of the forgoing Findings of Fact more properly designated as Conclusions of Law are hereby adopted as such.
233. The Administrative Law Judge has jurisdiction to draft a summary report of public comments in accordance with Minn. R. 7850.3800, subp. 2 to 4.
234. The Commission has jurisdiction over the site permit applied for by Xcel Energy for the proposed Project pursuant to Minn. Stat. §§ 216E.03–.04.
235. The Commission determined that the Application was substantially completed and accepted the Application on October 23, 2023.²⁶³
236. Applicant, the Commission, and DOC-EERA provided all notices required under Minnesota States and Rules for the Applications and have substantially complied with the procedural requirements of Minn. Stat. Ch. 216B, Minn. Stat. Ch. 216E, and Minn. R. Ch. 7829, 7849, and 7850.
237. DOC-EERA has conducted an appropriate environmental analysis of the Project, and the EA satisfies Minn. R. 7850.3700, and 7850.3900, subp. 2. Specifically, the EA and the record address the issues identified in the Scoping Decision to a reasonable extent considering the availability of information, and the EA includes the items required by Minn. R. 7850.3700, subp. 4, and was prepared in compliance with the procedures in Minn. R. 7850.3700.
238. Applicant gave notice as required by Minn. Stat. § 216E.04, subd. 4; Minn. R. 7850.2100, subp. 2; and Minn. R. 7850.2100, subp. 4.

²⁶² Minn. R. 4410.4400, subp. 6; Minn. R. 7850.3900, subp. 2.

²⁶³ Ex. PUC-303 (Order Accepting Application as Complete and Authorizing Use of the Alternative Review Process).

239. Notice was provided as required by Minn. Stat. § 216E.04, subd. 6; Minn. R. 7850.3500, subp. 1; Minn. R. 7850.3700, subps. 2, 3, and 6; and Minn. R. 7850.3800.
240. Xcel Energy has substantially complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.
241. The Commission has complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.
242. Public hearings were held on May 7 and 9, 2024. A public hearing was conducted near the Proposed Site. Proper notice of the public hearing was provided, and the public was given the opportunity to speak at the hearing and to submit written comments. All procedural requirements for the Site Permit were met.
243. The Commission has the authority under Minn. Stat. § 216E.04, subd. 9 to place conditions in a LEPGP site permit.
244. The Draft Site Permit as modified by Xcel Energy and DOC-EERA contains a number of important mitigation measures and other reasonable conditions.
245. The record in this proceeding demonstrates that the Project has satisfied the criteria for a Site Permit as set forth in Minn. Stat. § 216E.04 and Minn. R. Ch. 7850 and all other applicable legal requirements.
246. The Project with the general permit conditions contained in the draft site permit as modified by DOC-EERA, satisfies the site permit criteria for an LEPGP in Minn. Stat. § 216E.04 and meets all other applicable legal requirements.
247. The Project, with the permit conditions identified herein, does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights and/or the Minnesota Environmental Policy Act.