

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

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

**FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND RECOMMENDATION**

In the Matter of the Application of Xcel Energy for a Site Permit for the up to 460 MW Sherco Solar Project in Sherburne County

Docket No. E-002/GS-21-191

In the Matter of the Application of Xcel Energy for a Route Permit for the East 345 kV Transmission Line for the Sherco Solar Project in Sherburne County

Docket No. E-002/TL-21-190

In the Matter of the Application of Xcel Energy for a Route Permit for the West 345 kV Transmission Line for the Sherco Solar Project in Sherburne County

Docket No. E-002/TL-21-189

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The Minnesota Public Utilities Commission (the Commission) referred this matter to the Office of Administrative Hearings (OAH) for assignment of an administrative law judge to conduct summary proceedings and public hearings. The Administrative Law Judge was charged with preparing a report containing findings of fact, conclusions of law, and a recommendation on the merits of the proposed project, applying the siting and routing criteria established in statute and rule, and providing comments and recommendations, if any, on the conditions and provisions of the site and route permits.

The Administrative Law Judge held joint summary proceedings and public hearings in person and by video conference on April 20 and 21, 2022, respectively. The record remained open for the receipt of written public comments until May 5, 2022. The parties submitted final post-hearing submissions, with the last being filed on May 31, 2022. The hearing record closed that day.

Jeremy P. Duehr and Haley Waller Pitts, Fredrikson & Byron, P.A., appeared on behalf of National Grid Renewables Development, LLC (NG Renewables) and Northern States Power Company, doing business as Xcel Energy (Xcel Energy) (collectively Applicant). Aaron Brixius, Senior Project Manager for, Xcel Energy, and William Risse, Senior Permitting Specialist for National Grid Renewables as Authorized Agent for Xcel Energy, also appeared.

Bill Storm, Environmental Review Manager, appeared on behalf of the Minnesota Department of Commerce – Energy Environmental Review and Analysis Unit (EERA).

Scott Ek, Energy Facility Planner, appeared on behalf of the Commission.

STATEMENT OF THE ISSUES

1. Has Applicant satisfied the criteria established in Minnesota Statutes, chapter 216E (2020), and Minnesota Rules, chapter 7850 (2021), for a site permit for its proposed 460 megawatt (MW) solar energy conversion system in Becker and Clear Lake Townships, Minnesota?

2. Has Applicant satisfied the criteria established in Minnesota Statutes, chapter 216E, and Minnesota Rules, chapter 7850, for route permits for its proposed high voltage transmission lines (HVTL) in Becker and Clear Lake Townships, Minnesota?

SUMMARY OF RECOMMENDATION

Applicant has satisfied the applicable legal requirements and, accordingly, the Administrative Law Judge recommends that the Commission grant a site permit and two route permits for the proposed project, subject to the conditions and recommendations discussed herein.

Based on the evidence in the hearing record, the Administrative Law Judge makes the following:

FINDINGS OF FACT

BACKGROUND AND APPLICATION

I. APPLICANT

1. The Applicant is Northern States Power Company, doing business as Xcel Energy.¹

2. The project is a joint development between Xcel Energy and NG Renewables that includes a 460 MW solar energy conversion system (Solar Project) and associated transmission lines (HTLV Projects), collectively referred to

¹ Exhibit (Ex.) XCEL-01 at 1 (Application).

herein as the “Project”. By way of background, NG Renewables was developing a solar project on the west side of the Sherco Generating Plant (West Block), while Xcel Energy was developing a solar project on the east side of the existing Sherco Generating Plant (East Block). The companies entered into a purchase and sale agreement on January 15, 2021. Under that Agreement, NG Renewables will act as an authorized representative on behalf of Xcel Energy to secure a site permit for the Solar Project and two route permits for the West and East HVTLS Projects; and, Xcel Energy (as the applicant and permittee under the site and route permits) will construct, own, and operate the Project.²

II. APPLICATIONS AND RELATED PROCEDURAL BACKGROUND

3. On March 22, 2021, Applicant filed its Notice of Application for a Site Permit and Two Route Permits for the Project under the alternative permitting process.³

4. Also, on March 22, 2021, the EERA filed its Size Determination Response in reply to a Size Determination Request submitted on February 26, 2021, for the proposed Project. Because the proposed Project is greater than 50 MW, EERA determined that the Project is subject to the Commission’s siting authority.⁴

5. On April 20, 2021, Applicant filed its Application for a Site Permit and Two Route Permits for the Project (Application).⁵

6. On April 29, 2021, Applicant filed its Notice of Filing Application for a Site Permit and Two Route Permits.⁶

7. On May 4, 2021, 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 May 18, 2021, and the reply comment period closed on May 25, 2021.⁷

8. On May 18, 2021, the EERA submitted comments and recommendations concerning acceptance of the Application. The EERA recommended that the Commission accept the Application as complete and take no action on an advisory task force.⁸

² Ex. XCEL-01 at 1 (Application).

³ Sherco Notice of Application Under Alternative Permitting Process (March 22, 2021) (eDocket No. 20213-172092-02).

⁴ Compliance Review–Size Determination Response (March 22, 2022) (eDocket No. 20213-172093-01).

⁵ Exs. XCEL-101 through XCEL-117 (Application, Appendices, and Figures).

⁶ Ex. XCEL-116 (Notice of Filing Application for Site Permit and Two Route Permits).

⁷ Ex. PUC-200 (Notice of Comment Period).

⁸ Comments and Recommendations on Application Acceptance (May 18, 2021) (eDocket No. 20215-174261-01).

9. On May 25, 2021, Xcel Energy submitted reply comments regarding the Application's completeness and the process for reviewing the Application.⁹

10. On June 25, 2021, the Commission issued a Notice of Commission Meeting—Remote Access Only for its July 8, 2021, meeting.¹⁰ Commission staff filed briefing papers on June 29, 2021, in advance of the July 8 meeting.¹¹

11. On August 11, 2021, 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 for a summary proceeding. The Order also noted that the Commission had issued an order, in a separate docket, granting an exemption to the requirement that Xcel Energy obtain a Certificate of Need for the Project.¹²

12. On August 11, 2021, the Commission and EERA issued a Notice of Public Information and Environmental Assessment Scoping Meeting. An in-person meeting was noticed for August 31, 2021, and a remote-access meeting was noticed for September 1, 2021. A written comment period was also open through September 15, 2021. The Notice requested comments on issues and facts that should be considered in the development of the environmental assessment. The Notice of Public Information and Environmental Assessment Scoping Meetings was mailed to landowners and local units of government located within, and adjacent to, the Project.¹³

13. On August 17, 2021, the Commission filed the Notice of Public Information and Environmental Assessment Scoping Meeting's Affidavit of Publication in the *Patriot News MN* newspaper.¹⁴

14. On August 31, 2021, Commission Staff and 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 environmental assessment (EA).¹⁵ Commission staff, the EERA, and representatives from Xcel Energy and NG Renewables were present. Eighteen members of the public spoke during the August 31, 2021 public hearing (in-

⁹ Reply Comments-Application Completeness (May 25, 2021) (eDocket No. 20215-174488-01).

¹⁰ Notice of Commission Meeting—July 8, 2021 Agenda Meeting (June 25, 2021) (eDocket No. 20216-175380-05).

¹¹ Briefing Papers—July 8, 2021 Agenda (June 29, 2021) (eDocket No. 20216-175526-03).

¹² Ex. PUC-201 (Order Accepting Application as Complete and Authorizing Use of the Alternative Review Process).

¹³ Exs. EERA-2 and PUC-202 (Notice of Public Information and Environmental Assessment (EA) Scoping Meeting).

¹⁴ Ex. PUC-203 (Newspaper Affidavit of Publication - Notice of Public Information and EA Scoping Meeting).

¹⁵ See Public Meeting Presentation (August 31, 2021) (eDocket No. 20218-177534-03).

person).¹⁶ During the remote-access public hearing held on September 1, 2021, one member of the public spoke.¹⁷

15. On October 1, 2021, Xcel Energy submitted reply comments in response to comments received during the EA scoping comment period.¹⁸

16. On October 11, 2021, the EERA submitted its comments and recommendations concerning the EA scoping process. The EERA also provided a summary of the scoping process and recommended that two site alternatives and no route alternatives be studied in the EA.¹⁹

17. On October 29, 2021, the Commission issued a Notice of Commission Meeting—Hybrid Format for its November 12, 2021, meeting. Staff briefing papers were filed in advance of that meeting, on November 3, 2021.²⁰

18. On November 17, 2021, Xcel Energy submitted a letter containing its “Contiguous Parcel Analysis,” informing the Commission and EERA that it had not identified any contiguous parcels to be included in the EA’s analysis.²¹

19. On November 24, 2021, the Commission filed a Sample Site Permit and a Sample Route Permit, which was originally included in the July 8, 2021 briefing papers.²²

20. On December 1, 2021, Applicant submitted updated versions of Appendix F (Agricultural Impact Mitigation Plan (AIMP)) and Appendix G (Vegetation Management Plan (VMP)) to address agency comments.²³

21. On December 8, 2021, the Administrative Law Judge issued an Order for Prehearing Conference setting a prehearing conference for December 22, 2021.²⁴

22. On December 10, 2021, the Commission issued its Order for Consideration of Additional Site Alternatives in Environmental Assessment.²⁵

¹⁶ See *generally* August 31, 2021 Public Information and EA Scoping Meeting Transcript (eDocket No. 20219-178136-03).

¹⁷ See *generally* September 1, 2021 Public Information and EA Scoping Meeting Transcript, and Public Comment—On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹⁸ Ex. XCEL-120 (Reply Comments re EA Scoping).

¹⁹ Ex. EERA-4 (EERA Comments & Recommendations: Scoping Summary).

²⁰ Notice of Commission Meeting—November 12, 2021 Agenda (eDocket No. 202110-179285-02).

²¹ Ex. XCEL-121 (Contiguous Parcel Analysis Letter).

²² Exs. PUC-204 (Sample Site Permit from July 8, 2021 Briefing Papers) and PUC-205 (Sample Route Permit from July 8, 2021 Briefing Papers).

²³ Exs. XCEL-122 (Letter re Revised Application Appendices F and G); XCEL-123 (Revised Application Appendix F – Agricultural Impact Mitigation Plan), and XCEL-124 (Revised Application Appendix G – Vegetation Management Plan).

²⁴ Order For Prehearing Conference (December 8, 2021) (eDocket No. 202112-180520-02).

²⁵ Ex. PUC-206 (Order for Consideration of Additional Site Alternatives in EA).

23. On December 13, 2021, the EERA issued its Environmental Assessment Scoping Decision.²⁶

24. On December 27, 2021, the Administrative Law Judge issued the First Prehearing Order, which set a schedule for the proceedings.²⁷

25. On March 15, 2022, the EERA issued the EA. The EA considered the Project and two alternatives for the Solar Project. The Solar Project Alternative 1 (Alternative 1) was developed through the EA scoping process to address concerns raised by the City of Becker. Alternative 1 would remove three parcels from the Project's West Block totaling approximately 120.3 acres. Two additional parcels totaling approximately 126.4 acres would be removed from the East Block. In total, Alternative 1 would reduce the Project area from 3,483.6 acres to 3,237.0 acres. The result of removing this property from the Solar Project would result in a 27.8 MW alternating current (AC) nameplate capacity reduction in the Solar Project, such that Alternative 1 would have a nameplate capacity of 432.2 MW, as opposed to 460 MW. No changes to the proposed transmission routes (West or East HVTL Projects) are necessary to accommodate Alternative 1.

26. The Solar Project Alternative 2 (Alternative 2) would consist of the removal of the same parcels and Solar Project components as identified for Alternative 1. However, Alternative 2 would substitute the lost parcels with new parcels of land located to the northwest of the West Block. The nameplate capacity of Alternative 2 would be 460 MW. Alternative 2 would add an additional 246.8 acres of project area to accommodate the solar array footprint, and an additional 37.4 acres of project area to accommodate a 1.9-mile corridor of underground collection cable to transport the energy produced at the new site (Clear Lake) to the revised West Block boundary. No changes to the proposed HVTL routes (West or East) would be necessary to accommodate Alternative 2.

27. No alternative routes for the West or East HVLT Projects were studied in the EA.²⁸

28. On April 4, 2022, the Commission issued Notice of Public Hearings and Availability of Environmental Assessment, which set hearings for April 20, 2022 (in-person) and April 21, 2022 (remote-access).²⁹

29. On April 6, 2022, Xcel Energy filed the Direct Testimony of Aaron Brixius, William Risse, and Joshua Maus.³⁰ Among other topics, the Direct Testimony of Aaron

²⁶ Ex. EERA-5 (Scoping Decision for EA and Affidavit of Service).

²⁷ First Prehearing Order (December 27, 2021) (eDocket No. 202112-180986-02).

²⁸ Ex. EERA-8 (EA).

²⁹ Ex. PUC-207 (Notice of Public Hearings and Availability of EA).

Brixius explained that Xcel Energy had reached an agreement with the City of Becker whereby Xcel Energy agreed to remove five parcels (approximately 246.7 acres) from the Solar Project area (Site Alternative 1A).³¹

30. On April 7, 2022, Xcel Energy filed the Brixius Direct Testimony Schedule B- Rev1.³²

31. On April 13, 2022, the Commission issued Notice of the Availability of the Environmental Assessment in the *EQB Monitor*.³³

32. On April 14, 2022, Xcel Energy filed a response to the EERA's request for additional information regarding possible design measures to accommodate up to 460 MWs if proposed Site Alternative 1A was selected for the Project.³⁴

33. On April 15, 2022, the Commission filed an Affidavit of Publication–Notice of Public Hearings and Availability of Environmental Assessment.³⁵

34. On April 20 and 21, 2022, the Judge presided over joint public hearings on the Application for the Project in-person and via remote means.³⁶ Commission Staff, the EERA, and representatives from Xcel Energy and NG Renewables were present. Eighteen members of the public spoke during the April 20, 2022, public hearing (in-person).³⁷ During the remote-access public hearing held on April 21, 2022, five members of the public spoke.³⁸

35. Applicant filed proposed findings of fact and conclusions of law on May 16, 2022.³⁹

36. On May 31, 2022, the EERA filed its review and comments regarding Applicant's proposed findings and conclusions.⁴⁰

³⁰ Ex. XCEL-132 (Direct Testimony of Aaron Brixius); Ex. XCEL-133 (Schedule A to Direct Testimony of Aaron Brixius); Ex. XCEL-134 (Schedule B to Direct Testimony of Aaron Brixius); Ex. XCEL-128 (Testimony—W. Risse Direct Testimony); Ex. XCEL-129 (Schedule A to Direct Testimony of William Risse); Ex. XCEL-130 (Schedule B to Direct Testimony of William Risse); Ex. XCEL-131 (Schedule C to Direct Testimony of William Risse); Ex. XCEL-125 (Testimony—J. Maus Direct Testimony); Ex. XCEL-126 (Schedule A to Direct Testimony of Joshua Maus); Ex. XCEL-127 (Schedule B to Direct Testimony of Joshua Maus).

³¹ Ex. XCEL-132 (Direct Testimony of Aaron Brixius); see also City of Becker Direct Testimony of Jeff O'Neill (Apr. 6, 2022) (eDocket No. 20224-184514-01).

³² Ex. XCEL-135 (Brixius Direct Testimony Schedule B- Rev1).

³³ Ex. PUC-208 (EQB Monitor - Notice of Public Hearings and Availability of EA).

³⁴ Sherco Solar Letter Filing Response to EERA Questions Regarding Alternative 1A (April 14, 2022) (eDocket No. 20224-184780-03).

³⁵ Affidavit of Publication–Notice of Public Hearings and Availability of EA (April 15, 2022) (eDocket No. 20224-184830-02).

³⁶ Public Hearing Presentation (April 19, 2022) (eDocket No. 20224-184898-02).

³⁷ See generally April 20, 2022 Public Hearing Transcript (Tr. Vol. I).

³⁸ See generally April 21, 2022 Public Hearing Transcript (Tr. Vol. II).

³⁹ Applicant's Proposed Findings of Fact, Conclusions of Law, and Recommendations (May 16, 2022) (eDocket No. 20225-185843-01).

III. SOLAR PROJECT DESCRIPTION

37. The proposed Project is an up to 460 MW Solar Project and two 345 kV high voltage transmission lines to interconnect the Solar Project to the electrical grid. The West HVTL Project is approximately 3.2 miles long and the East HVTL Project is approximately 1.7 miles long. Both HVTL Projects connect the Solar Project to the existing Sherburne County Substation immediately south of the Xcel Energy Sherburne County Generating Facility (Sherco Generating Plant). The Solar Project has an anticipated service life of 35 years.⁴¹

38. The solar energy generating system (SEGS) would consist of two blocks: the East Block, a 230 MW site; and the West Block, also a 230 MW site. Both blocks would be built adjacent to the coal-powered Sherco Generating Plant and connected to the electrical grid at the existing Sherburne County Substation via the East and West HVTL Projects. The Solar Project would be sited in Clear Lake and Becker Townships in Sherburne County.⁴²

39. The primary components of the solar facility would include:

- a. photovoltaic (PV) panels affixed to a linear ground-mounted single-axis tracking system,
- b. solar inverters,
- c. an electrical collection system (aboveground/belowground hybrid or all belowground),
- d. access roads,
- e. security fencing,
- f. two electric collector step-up substations,
- g. an operation and maintenance facility,
- h. stormwater drainage basins, and
- i. weather stations (up to 20 feet tall).⁴³

40. A temporary construction laydown yard for the Solar Project will be located on Xcel Energy property located within the City of Becker.⁴⁴

⁴⁰ EERA Review and Comments – Proposed FOF Sherco Solar Project (May 31, 2022) (eDocket No. 20225-186212-02).

⁴¹ Ex. XCEL-101 at 1 (Application).

⁴² Ex. XCEL-101 at 1-12 (Application).

⁴³ Ex. XCEL-101 at 11 (Application); EERA-8 at 19-38 (EA).

⁴⁴ Ex. XCEL-101 at 9 (Application).

41. Solar 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 Solar 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.⁴⁵

42. The solar panels deliver direct current (DC) power to the inverters through cabling that typically will be located in an underground trench or ploughed in place (at least four feet deep). The depth to cables may be deeper for installation under existing utilities or other features requiring avoidance. The specific electrical collection technology used will be site-specific depending on geotechnical analysis, constructability, and availability of materials. Final engineering and procurement will help determine the construction method for the electrical collection system.⁴⁶

43. Energy from the solar panels is directed through an electrical collection system to inverters where the power is converted from DC to AC power. The power is then transmitted via underground collection lines to a step-up transformer located at the Project substation from 34.5 kilovolt (kV) to 345kV. Generated power is then carried to the existing transmission infrastructure.⁴⁷

44. Both the West and East Collector Substations will be 34.5/345 kV step-up substations with metering and switching gear required to connect to the transmission grid at the Sherburne County Substation. The West and East Collector Substation areas will be approximately 300 feet by 850 feet once construction is complete.⁴⁸

45. 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.⁴⁹

46. Xcel Energy's total estimated costs for the Solar Project, \$621 million, are provided in the EA.⁵⁰ The total installed capital costs for the Solar Project will depend on variables including, but not limited to, construction costs, taxes, tariffs, and panel selection, along with associated electrical and communication systems, and access roads.⁵¹

⁴⁵ Ex. XCEL-101 at 17 (Application).

⁴⁶ Ex. XCEL-101 at 19 (Application).

⁴⁷ Ex. XCEL-101 at 15 (Application).

⁴⁸ Ex. XCEL-101 at 22 (Application).

⁴⁹ Ex. XCEL-101 at 31 (Application).

⁵⁰ Ex. EERA-8 at 33 (EA).

⁵¹ Ex. XCEL-101 at 15 (Application).

IV. SOLAR PROJECT SITE CONSIDERATIONS

A. Site location and characteristics

47. The Solar Project is proposed to be located in Clear Lake Township and Becker Township in Sherburne County, Minnesota.⁵² The Project would interconnect into the Sherburne County Substation, which is adjacent to the Solar Project. Xcel Energy and NG Renewables selected this location based on a number of factors, but a key consideration in the selection process was the Project's proximity to existing electrical and transportation infrastructure, including the Sherco Generating Plant, existing transmission lines, and the Sherburne County Substation, which will soon have capacity as a result of ceasing operation of Unit 2 of the Sherco Generating Plant. Additionally, the agricultural areas surrounding the Sherco Generating Plant provide abundant opportunity for solar generation on relatively flat landscapes, with few sensitive resources that have been previously disturbed by agricultural activities. Existing infrastructure in the immediate vicinity of the Project, together with Xcel Energy owned property, allows Xcel Energy to minimize the need to construct ancillary facilities on private land not owned by Xcel Energy.⁵³

48. Xcel Energy requested Commission approval of Site Alternative 1A, which would remove five parcels (approximately 246.7 acres) from the Solar Project area proposed in the Application. Site Alternative 1A was proposed to address concerns raised by the City of Becker. The revised Solar Project area consists of approximately 3,237.0 acres. The City of Becker expressed support for Commission approval of Site Alternative 1A.⁵⁴ Xcel Energy continues to evaluate the feasibility of maintaining the full 460 MW AC capacity within the Alternative 1A Solar Project area. Various methods may be utilized to site and construct as much of the 460 MW AC nameplate capacity of the Solar Project within the spatial confines of the Alternative 1A Solar Project area while ensuring any decisions are in the best interest of Xcel Energy customers. The measures that could be taken to maximize solar energy production with the Site Alternative 1A Solar Project area include equipment selection, minor footprint expansions of the Project footprint within the Solar Project area, panel infilling, and panel row spacing.⁵⁵

49. Xcel Energy and Sherco Solar, LLC⁵⁶ have obtained leases and purchase options for all of the land proposed for Project facilities. Xcel Energy will acquire the Sherco Solar leases upon closing of the Purchase and Sale Agreement with NG Renewables.⁵⁷

⁵² Ex. XCEL-101 at 8 (Application); Ex. EERA-8 at 29-30 (EA).

⁵³ Ex. EERA-8 (EA).

⁵⁴ O'Neill Testimony (April 6, 2022) (eDocket No. 20224-184514-01); City of Becker Exhibits-Hearing (April 7, 2022) (eDocket No. 20224-184516-02) and (eDocket No. 20224-184515-01).

⁵⁵ Ex. XCEL-136 at 2 (Letter Response to EERA Request for Additional Information regarding Site Alternative 1A).

⁵⁶ Sherco Solar, LLC is a subsidiary of NG Renewables. See Ex. XCEL-101 at 3 (Application).

⁵⁷ Ex. XCEL-101 at 9 (Application).

B. Resource considerations

50. The Solar Project is located immediately adjacent to the Sherco Generating Plant. Xcel Energy and NG Renewables selected the specific Solar Project area 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 resources, and minimal impact on environmental resources.⁵⁸

V. EAST AND WEST HVTL ROUTE CONSIDERATIONS

A. West Route evaluation

1. Proposed Route

51. Xcel Energy has developed a West Route for the proposed West HVTL Project that is located in sections 26, 27, and 35 of Clear Lake Township and Sections 25 and 36 (T34N R29W) and Sections 1 and 2 (T33N 29W), all four of which are within the City of Becker.⁵⁹

52. The West Route will begin at a new Solar Project collector substation (West Collector Substation) to be constructed on the east side of the West Block of the Solar Project along 115th Avenue SE (County Road 53) and approximately one-quarter mile north of River Road SE (CSAH 8). The West Route will then generally travel south and east for approximately three miles to the existing Sherburne County Substation.⁶⁰

53. The West Route was developed based on the routing criteria and voluntary landowner participation. Within the Solar Project, Sherco Solar and Xcel Energy have land leased or under purchase option for the transmission line. Outside the Solar Project, the West Route is routed on Xcel Energy-owned property. The West Route traverses predominately cultivated crop lands using roads and parcel lines and accounting for landowner preferences for the anticipated alignment.⁶¹

2. Other routes evaluated

54. Xcel Energy evaluated siting the West Collector Substation approximately 0.6-mile north along 115th Avenue SE (County Road 53) within the Solar Project area. This substation was shifted south to the location proposed in this Application to potentially allow a future road to be constructed through the northeastern most part of the West Block of the Solar Project and allow commercial and industrial development on land that is north of the West Block and not part of the Solar Project. Shifting the West Collector Substation also minimizes transmission line length and allows Xcel Energy to

⁵⁸ Ex. XCEL-101 at 10, 14 (Application).

⁵⁹ Ex. XCEL-101 at 36 (Application).

⁶⁰ Ex. XCEL-101 at 36 (Application).

⁶¹ Ex. XCEL-101 at 37 (Application).

route nearly the entire length of the West HVTL Project on Xcel-owned property, thereby reducing the overall impacts from the West HVTL Project.⁶²

55. Xcel Energy also evaluated a route segment from the former West Collector Substation location, east to U.S. Highway 10, and paralleling the south side U.S. Highway 10 southeast to 125th Avenue SE (County Road 52) before turning south. However, the City of Becker and Sherburne County have informed Xcel Energy of potential future road improvements to this segment of the highway between 115th and 125th Avenues SE (County Roads 53 and 52, respectively). Priority was also given to willing landowner participants for the route selected. One landowner necessary to complete the segment indicated that a greenfield route for the line could impact their center pivot irrigation infrastructure and agricultural operations. Therefore, to avoid potential relocation later, and to avoid a greenfield crossing of an agricultural field that would disrupt center-pivot irrigation, Xcel Energy rejected this segment from consideration. Instead, the West Route follows 115th Avenue SE (County Road 53) south out of the West Collector Substation before turning east on River Road SE (CSAH 8) to 125th Avenue SE (County Road 52).⁶³

B. East Route evaluation

1. Proposed Route

56. The East Route was sited to provide a direct and efficient route between the proposed East Collector Substation and the existing Sherburne County Substation that maximizes corridor sharing with roads and avoids impacts to residences and private landowners while considering potential future commercial and industrial development and transmission planning around the Sherco Generating Plant. From the East Collector Substation, the East Route crosses 140th Avenue SE (Sherburne Avenue), and the fence line of the existing Sherco Generating Plant. It then turns north and travels along the west side of 140th Avenue SE for about one-quarter mile before turning west for a little more than one mile, eventually connecting into the Sherburne County Substation.⁶⁴

2. Other routes evaluated

57. Because the East Route was intentionally designed to be the most direct route, avoid private landowners, avoid the existing 345 kV transmission lines, and is less than two miles, no alternative route segments were evaluated. Xcel Energy designed the East Route with potential future commercial and industrial development within the Sherco Generating Plant in mind.⁶⁵

⁶² Ex. XCEL-101 at 42 (Application).

⁶³ Ex. XCEL-101 at 43 (Application).

⁶⁴ Ex. XCEL-101 at 53 (Application).

⁶⁵ See generally XCEL-101 (Application).

C. Transmission line structure types and spans

58. The new 345 kV transmission lines would be constructed of custom steel single-pole (monopole) structures.⁶⁶

59. Xcel Energy will implement three types of monopole structures: tangent, angle, and dead end. These structures are typically used in the following situations: (1) tangent structures to support straight or nearly straight runs of conductor; (2) angle structures to turn the conductor approximately 2 to 60 degrees; and (3) dead end structures to turn the conductor approximately 60 to 90 degrees or take the full tension of the line in one direction.⁶⁷

D. Transmission line conductors

60. The conductors for the 345-kV transmission lines will consist of two-bundle Dover T-2 aluminum conductor steel-reinforced conductor in a vertical configuration with 18 inch spacing. The conductors will have a capacity of 370 megavolt amperes loading.⁶⁸

E. Transmission line route widths

61. For the West HVTL Project, Xcel Energy proposes a route width of approximately 1,200 feet around the West Collector Substation to allow for flexibility in routing around this facility. Xcel Energy proposes a route width of approximately 600 feet between the West Collector Substation and the intersection of River Road SE (CSAH 8) and 125th Avenue SE (County Road 52), where the West Route enters the existing fenceline of the Sherco Generating Plant. Inside this fenceline, Xcel Energy proposes a varying route width of approximately 700 to 1,800 feet to provide flexibility in routing around and near existing transmission lines and the Sherco Generating Plant and associated facilities. The widest route width, approximately 1,800 feet, is proposed around the Sherburne County Substation.⁶⁹

62. For the East HVTL Project, Xcel Energy proposes a route width of approximately 860 feet between the East Collector Substation and the intersection of 140th Avenue SE (Sherburne Avenue) and 137th Street, where the East Route enters the existing fenceline of the Sherco Generating Plant. Inside this fenceline, Xcel Energy proposes a varying route width of approximately 950 to 1,800 feet to provide flexibility in routing around and near existing transmission lines and the Sherco Generating Plant and associated facilities. The widest route width, approximately 1,800 feet, is proposed around the Sherburne County Substation.⁷⁰

⁶⁶ Ex. XCEL-101 at 38 (Application).

⁶⁷ Ex. XCEL-101 at 38 (Application).

⁶⁸ Ex. XCEL-101 at 38 (Application); EERA-8 at 43 (EA).

⁶⁹ Ex. XCEL-101 at 37 (Application); EERA-8 at 40 (EA).

⁷⁰ Ex. XCEL-101 at 48 (Application).

63. After the Commission issues a Route Permit decision with an “anticipated alignment,” a final alignment will be developed by reviewing that “anticipated alignment” with individual landowners and agencies with permitting responsibilities and performing detailed survey and engineering work, site review, and design. The final alignment will be provided to the Commission through the Plan and Profile submission and review process discussed above. As part of that submission, Xcel Energy will inform the Commission as to where deviations in the final alignment occur when compared to the “anticipated alignment.”⁷¹

F. Transmission line rights-of-way

64. Xcel Energy anticipates constructing the new single-circuit 345 kV transmission lines and structures using a design and span lengths that require a 150-foot-wide right-of-way. When paralleling existing road rights-of-way, Xcel Energy proposes to place poles on adjacent private property, within approximately 10 feet of the existing road right-of-way. These pole placements allow the transmission line right-of-way to share existing road rights-of-way to the greatest extent feasible and will reduce the overall size of the easement required from the private landowner along roads.⁷²

65. All necessary easements for both the West and East HVTL Projects have been secured from willing landowners.⁷³

G. Transmission line costs

66. The total estimated cost of the West HVTL Project along the proposed West Route is approximately \$6.9 million. The total estimated cost of the East HVTL Project along the proposed East Route is approximately \$3.7 million. This estimate is an engineering estimate and expected to reflect actual Project costs within 20 percent. Final Project costs are dependent on a variety of factors, including the approved route, timing of construction, cost of materials, and labor.⁷⁴

67. Operating and maintenance costs after construction of the transmission lines will be nominal for several years because the lines will be new and minimal initial vegetation management is required. The anticipated annual operating and maintenance costs for the transmission lines are approximately \$500 per mile. The principal operating and maintenance costs include inspections, which are typically ground-based but occasionally are done aerially. Inspections are generally performed on a yearly basis.⁷⁵

VI. PROJECT SCHEDULE

68. The anticipated schedule for each project (Solar Project, West HVTL Project, and East HVTL Project) is provided in the Application’s Appendix B,

⁷¹ Ex. XCEL-101 at 38 (Application).

⁷² Ex. XCEL-101 at 40, 50 (Application); EERA-8 at 40 (EA).

⁷³ Ex. XCEL-101 at 43 (Application); EERA-8 at 43 (EA).

⁷⁴ Ex. XCEL-101 at 40, 51 (Application); EERA-8 at 33 (EA).

⁷⁵ Ex. XCEL-101 at 40 (Application).

Section 1.3, which has been designated as trade secret. The Project is being developed to facilitate an in-service date of all components of the Project in the fourth quarter of 2025 with the first phase being placed in-service in the fourth quarter of 2024.⁷⁶ The Project schedule may change based on the U.S. Department of Commerce's recently announced investigation into circumvention of Anti-Dumping and Countervailing Duties by solar manufacturers.⁷⁷ Xcel Energy reserves the ability to begin commercial operations for portions of the Project via a phased approach beginning in 2024, to accommodate an in-service date for the entire Project by the fourth quarter of 2025.⁷⁸

VII. PERMITTEE

69. Xcel Energy, as the applicant and permittee under the site and two route permits, will construct, own, and operate the Project.⁷⁹

VIII. PUBLIC AND LOCAL GOVERNMENT PARTICIPATION

70. Xcel Energy and NG Renewables engaged in local government agency consultations prior to submitting the Site and Route Permit Applications and continued to meet with local government agencies throughout the pendency of its Applications before the Commission.⁸⁰

71. Outreach with Sherburne County has been ongoing since 2019, during various stages in the Project development process. Meeting discussion topics generally covered the same zoning topics: the county's long-term vision of establishing Highway 8 as a more scenic drive throughout Sherburne County, as well as any planned screening for the Project. In response, NG Renewables representatives touched on the overall commercial development plans by the City of Becker adjacent to the Sherco Generating Plant, as well as targeted screening that will be implemented for residences directly adjacent to the Solar Project area. NG Renewables touched on the high costs of large-scale screening efforts for a 460 MW Project, the potential for implementation of more traditional agricultural fencing, and the commitment to pollinator-friendly ground cover that will provide some visual appeal.⁸¹ Sherburne County has also been a participant in many of the meetings with the City of Becker regarding the Project and economic development plans for the area. A general Project overview and timeline, along with details of the Integrated Resource Plan and Resource and Recovery filing, were provided.⁸²

72. Following a presentation of the Project to the City of Clear Lake on September 8, 2020, the City of Clear Lake prepared a letter of support for the Project addressed directly to the Commission. At the time, land adjacent to and within the city

⁷⁶ Ex. XCEL-132 at 5, 6 (Brixius Testimony).

⁷⁷ Ex. XCEL-132 at 6 (Brixius Testimony).

⁷⁸ Ex. XCEL-132 at 5, 6 (Brixius Testimony).

⁷⁹ Ex. XCEL-01 at 1 (Application).

⁸⁰ See, e.g., Ex. XCEL-105.

⁸¹ Ex. XCEL-01 at 186 (Application).

⁸² Ex. XCEL-01 at 187 (Application).

was under consideration for the Project. The area presented also included what is now considered the West Block of the Solar Project. In the letter, the Mayor of Clear Lake commented on the economic benefits of the Project for the City of Clear Lake and landowners participating in the Project.⁸³

73. Xcel Energy maintained regular contact with the City of Becker due to their larger efforts associated with plans for the Sherco Generating Plant. Xcel Energy and NG Renewables met with planning and economic development officials from the City of Becker on January 27, 2021, to discuss the Solar Project specifically. At this meeting, city administrative officials requested additional setbacks for the fenceline of the West Block of the Solar Project along that portion of 115th Avenue SE (County Road 53) south of County Road 8 to accommodate future utility improvements associated with economic development efforts in the area. NG Renewables incorporated a fence setback of at least 65 feet from the centerline of 115th Avenue SE (County Road 53). Generally, officials at the meeting agreed that the Project aligned with Becker's long-term development vision for the community.⁸⁴

74. Additional meetings and correspondence have been ongoing with the City of Becker following the introduction of the Project on January 27, 2021. In these meetings, City of Becker officials relayed their concerns that the Project may block future growth opportunities for the city with respect to land currently under the control of Clear Lake Township, primarily due to the orientation of the Project's West Block.⁸⁵ The City of Becker and Xcel Energy were able to reach an agreement to address the city's concerns about the Project. Alternative 1A was presented to the Commission as a Solar Project area the City of Becker will support.⁸⁶

75. NG Renewables received a response from the Clear Lake Township Board of Officers on January 26, 2021, in which the Board expressed its full support for the Project. The Board noted the many benefits the Project would have on the local economy, through production taxes and property taxes, and on the environment by providing a new source of clean renewable energy for the State of Minnesota.⁸⁷

76. Following distribution of the notification letter in January 2021, and additional email correspondence with township officials, NG Renewables and Xcel Energy made a presentation to the Becker Township Board and officials on February 9, 2021. The discussion following the presentation covered a wide a range of topics, including clarification of participating parcels, screening and fencing, contamination, decommissioning, panel recycling, Xcel Energy's current Sherco Generating Plant, and future plans for 149th Avenue in the Solar Project area.⁸⁸

⁸³ Ex. XCEL-01 at 187 (Application).

⁸⁴ Ex. XCEL-01 at 187 (Application).

⁸⁵ Ex. XCEL-101 at 188 (Application).

⁸⁶ See O'Neill Testimony (April 6, 2022) (eDocket No. 20224-184514-01); City of Becker Exhibits-Hearing (April 7, 2022) (eDocket No. 20224-184516-02) and (eDocket No. 20224-184515-01).

⁸⁷ Ex. XCEL-101 at 188 (Application).

⁸⁸ Ex. XCEL-101 at 188 (Application).

IX. SUMMARY OF PUBLIC COMMENTS

A. Attendance and Participation

77. At the public hearings, members of the public offered comments and questions on a broad range of topics, including: agriculture; noise; property values; wildlife and their habitats; routing; loss of usable farmland; intermittency of renewable generation; and economic development.

78. Eighteen members of the public spoke during the Public Information and Environmental Assessment Scoping Meeting (in-person) held on August 31, 2021.⁸⁹

79. One member of the public spoke during the Public Information and Environmental Assessment Scoping Meeting (remote-access) held on September 1, 2021.⁹⁰

80. Approximately 50 members of the public attended the public hearing (in-person) on April 20, 2022. Eighteen individuals asked questions and provided comments during the public hearing.⁹¹

81. Five members of the public spoke during the public hearing (remote-access) held on April 21, 2022.⁹²

B. Summary of Hearing Comments

82. Michael Couri, counsel for Clear Lake Township, offered comments on behalf of the township. The township strongly supports the Project, although it was disappointed that the City of Becker did not consult with it regarding the city's support for Site Alternative 1A. The township prefers that the Project be approved without the exclusion of parcels, but does not oppose approval of the Project as modified by Site Alternative 1A. The township believes the Project is vitally important for both the state as a whole and the local economy."⁹³

83. Jeff O'Neill, interim city administrator for the City of Becker, spoke to reaffirm the city's support for the Project as modified by Site Alternative 1A.⁹⁴

84. Andy Snope commented on behalf of IBEW Local 292 electrical workers, stating, "IBEW Local 292 is fully supportive of this proposal[.]" Mr. Snope emphasized that the Project represents "an investment of our hard-earned money in creating the jobs we rely on to provide for our families." IBEW Local 292 urges that "the requirements of Minnesota State building and electrical standards, specifically Minnesota State Statutes around electrical installations" be made conditions of the

⁸⁹ See generally August 31, 2022 Public Information and EA Scoping Meeting Transcript.

⁹⁰ See generally September 1, 2021 Public Information and EA Scoping Meeting Transcript.

⁹¹ See generally April 20, 2022 Public Hearing Transcript (Tr. Vol. I).

⁹² See generally April 21, 2022 Public Hearing Transcript (Tr. Vol. II).

⁹³ Tr. Vol. I at 18-20.

⁹⁴ Tr. Vol. I at 20-21.

Project permits, without regard to the ownership exemption. IBEW Local 292 believes that such conditions will ensure the safest installation and are consistent with previously issued permits.⁹⁵

85. Randy Seely, a resident of Clear Lake Township and employee of the Sherco Generating Plant, spoke in opposition to the Project. Mr. Seely is “not fond of this solar thing” and considers coal to be the cheapest and most reliable way to generate electricity.⁹⁶

86. Nathan Runke, political and regulatory affairs coordinator for Local 49, the equipment operators in Minnesota, South Dakota, and North Dakota, provided comments on behalf of his union. Mr. Runke stated that union members strongly support this Project and are excited by the opportunities it presents, describing it as a way “to continue to build projects that will provide energy for this state going into the future” and a “just transition” to clean, renewable energy.⁹⁷

87. Vanessa Kaiser is a resident of Buffalo, Minnesota, and a member of Local 563. She strongly supports the Project, emphasizing the “opportunities to bring more diverse workers into the industry through Xcel’s new workforce program” and that the Project’s use of local labor “translates into tens of millions of dollars worth of good pay, health care, pension, and training contributions.”⁹⁸

88. Ken Huling, a representative of North Central States Regional Council of Carpenters, commented in support of the Project. He noted the union’s long record of providing construction and maintenance for the Sherco Generating Plant. Mr. Huling described the Project as “a great opportunity to develop and to build renewable energy projects in the Becker community that would create good-paying jobs for local construction workers.” Mr. Huling emphasized the benefits of Xcel Energy’s commitment to “give preference to women, veterans, and minority-owned businesses, contractors and utilities,” resulting in a just transition in the energy sector.⁹⁹

89. John Nafus, a union member of Local 563, offered his support for the Project. For much of Mr. Nafus’ career, he has been working with Xcel. Mr. Nafus supports the Project because Xcel Energy has “always set the highest standard for renewable energy” and is a Minnesota company.¹⁰⁰

90. John O’Brien is a resident of Clearlake and a member of Local 563 who spoke in support of the Project. Mr. O’Brien noted that the Sherco Generating Plant will be shut down, and the Project is an important component of replacing the power the plant will no longer produce.¹⁰¹

⁹⁵ Tr. Vol. I at 21-24.

⁹⁶ Tr. Vol. I at 24-26.

⁹⁷ Tr. Vol. I at 26-27.

⁹⁸ Tr. Vol. I at 28.

⁹⁹ Tr. Vol. I at 28-30.

¹⁰⁰ Tr. Vol. I at 30-31.

¹⁰¹ Tr. Vol. I at 31.

91. Bryan Olson, a resident of Becker, asked questions about the Project, including the environmental impact of solar panels, the net loss of jobs occasioned by the transition from coal to solar power generation, the agricultural benefits of solar power, and what happened to the plan to convert the Sherco Generating Plant to a gas-fired plant. Overall, Mr. Olson does not support the Project.¹⁰²

92. Travis Marow, a laborer with Local 563, spoke in opposition to the Project, offering that the Project should be sited in a way that prevents the loss of 3200 acres of farmland.¹⁰³

93. Adam Hutchens, a member of Local 563, expressed concern about the loss of jobs anticipated due to Sherco Generating Plant's complete ceasing of operations in 2030. Mr. Hutchens encouraged the Commission to hold Xcel Energy to its commitment to invest in infrastructure and training in the area.¹⁰⁴

94. John Vekved questioned how the loss of 3,200 acres of agricultural land to solar energy production will be addressed.¹⁰⁵

95. Jerome Kleis, a resident of Becker, stated that his biggest concern is that the closing of the Sherco Generating Plant will result in a loss to the tax base that will not be replaced by the Project. He also raised questions about the decommissioning of the plant, and whether the affected parcels would be rezoned to industrial use.¹⁰⁶

96. Sharon Klisch, a resident of the area, spoke in opposition to the Project. She believes the government is funding the Project; that solar is an unreliable and aesthetically unpleasing form of energy generation; and she urges the Commission to "stop your green deal things" and instead continue to rely on "God-given coal."¹⁰⁷

97. Kennedy Bowersox questioned whether the landowners leasing land for the Project are doing so voluntarily. She disagrees with landowners being compensated for the placement of "disgusting" solar panels that she will have to look at. She believes that there will be a net loss of jobs overall.¹⁰⁸

98. Ross Imholte is a landowner who voluntarily entered into a lease allowing use of his land for the Project. He offered his continued support for the Project.¹⁰⁹

99. Joe Fowler is a business manager for Laborers' Local 563, the president of Minnesota State Building Trades, and a resident of Big Lake, Minnesota. He spoke in favor of the Project. Mr. Fowler emphasized the unions' long history with Xcel Energy as a "community partner" and the many benefits that have resulted from that partnership.

¹⁰² Tr. Vol. I at 31-44.

¹⁰³ Tr. Vol. I at 44.

¹⁰⁴ Tr. Vol. I at 45-46.

¹⁰⁵ Tr. Vol. I at 52.

¹⁰⁶ Tr. Vol. I at 53-59, 63-65.

¹⁰⁷ Tr. Vol. I at 60-61.

¹⁰⁸ Tr. Vol. I at 61-62.

¹⁰⁹ Tr. Vol. I at 63.

He noted that there are both positive and negative impacts on employment from the Project and the decommissioning of the Sherco Generating Plant. He noted with approval the plans to transition workers from the Sherco Generating Plant to Project jobs as part of Xcel Energy's "commitment to building union." Mr. Fowler notes that "every one of those jobs will be family supporting." He also supports Applicant's commitment to building a more diverse workforce in the energy sector.¹¹⁰

100. Lucas Franco, regional research manager for the Laborers' Union International of North America (LIUNA), provided comments in support of the Project. He noted the concerns of LIUNA members, such as losing work at coal-fired plants, the quality of new jobs created by renewable energy generation, the potential for increased electricity rates, and job opportunities being transferred to workers who do not reside in the area. Mr. Franco supports the Project because these concerns are addressed by the Project, praising it as a "model of how to transition to a clean energy power while not leaving workers and host communities behind[.]" Mr. Franco highlighted the job opportunities for a diverse workforce and the efficient use and reuse of resources the Project presents.¹¹¹

101. Octavio Chung is a Hugo resident and union member. He expressed his support for the Project, noting that Xcel Energy is "transitioning to clean energy the right way" by creating good jobs, investing in the local economy, and focusing on opportunities for workers of color in the construction industry.¹¹²

102. Michael Noble, executive director of Fresh Energy, a clean energy policy advocacy nonprofit in St. Paul, encourages the Commission to approve the Project. He views the Project as a "worthwhile investment" in a clean energy future and emphasized that the location is ideal for this type of project. Mr. Noble recognized there are issues to resolve, such as solar panel shortages, but believes that these issues can be resolved and should not prevent approval of the Project.¹¹³

103. Eric Engstrom is a member of Local 563 and a resident of Becker. Mr. Engstrom supports the Project as a way to continue to provide valuable jobs in the energy industry.¹¹⁴

C. Summary of Written Comments

104. On May 18, 2021, R.D. Offutt Farms submitted comments expressing support for the Project, stating that it recognized the Project as another opportunity to increase its sustainability efforts by supporting Minnesota's clean energy economy.¹¹⁵

¹¹⁰ Tr. Vol. II at 19-25.

¹¹¹ Tr. Vol. II at 25-30.

¹¹² Tr. Vol. II at 31-33.

¹¹³ Tr. Vol. II at 34-35.

¹¹⁴ Tr. Vol. II at 37-38.

¹¹⁵ Public Comment—R.D. Offutt Farms (May 18, 2021) (eDocket No. 20215-174267-03).

105. On May 18, 2021, the Minnesota Pollution Control Agency (MPCA) stated that the agency had no comments at that time.¹¹⁶

106. On May 18, 2021, Becker Township submitted comments concerning the Project's potential impact on the township's transportation system and business park.¹¹⁷

107. On May 19, 2021, the City of Becker submitted a written comment supporting the Project but mentioning that the Project "presents significant challenges to the City and our local economy and planned future growth." Thus, the City of Becker proposed the inclusion and consideration of the following in the Environmental Assessment: (1) potential alternate parcels of land for solar panel siting in place of those located in closest proximity to the city (as more specifically identified below); (2) the impacts the proposed Project site will have on the city's plans for economic development, including the utilization of land for other publicly-funded projects, the consistency (or lack thereof) with state statutory policy and goals for energy facility siting, and municipal growth and expansion; and (3) a comprehensive consideration of local economic and tax benefits to the communities in and surrounding the Project's proposed footprint.¹¹⁸

108. On May 20, 2021, the Big Lake Sno Cruisers submitted a comment expressing support for the Project.¹¹⁹

109. On May 25, 2021, the Clear Lake Township Board submitted comments expressing support for the Project. The township stated that the Project "is compatible with the township's long-term vision and planning efforts."¹²⁰

110. On May 25, 2021, Laborers' International Union of North America Minnesota and North Dakota (LIUNA) submitted comments expressing support for the Project.¹²¹

111. On June 1, 2021, adjacent landowners, Kendra Jaeger and Mike Braddock, submitted written comments in support of the Project, stating that the Project would benefit the land and community both environmentally and economically.¹²²

112. On June 9, 2021, Jim Gefre of the Loretta Rose Revocable Trust, submitted written comments on behalf of participating landowners, Kevin and Jean Goenner, Del Hayes and Sons, Inc., Ross Imholte, Jim Gefre of the Loretta Rose Revocable Trust, and Gray Farms. The participating landowners stated that they fully

¹¹⁶ Public Comment—MPCA (May 18, 2021) (eDocket No. 20215-174280-01).

¹¹⁷ Public Comment—Becker Township (May 18, 2021) (eDocket No. 20215-174285-01).

¹¹⁸ Public Comment—City of Becker (May 19, 2021) (eDocket No. 20215-174289-03).

¹¹⁹ Public Comment—Big Lake Sno Cruisers (May 20, 2021) (eDocket No. 20215-174336-01).

¹²⁰ Public Comment—Clear Lake Township Board (May 25, 2021) (eDocket No. 20215-174492-02).

¹²¹ Reply Comments (May 25, 2021) (eDocket No. 20215-174497-03).

¹²² Public Comment—Received Outside Comment Period- K. Jaeger (June 1, 2021) (eDocket No. 20216-174669-02).

support the Project and view the Project as a new and exciting resource for future electric generation for the area.¹²³

113. On September 7, 2021, Xcel Energy submitted an informational letter to provide information concerning Applicant's continued conversations with Becker Township.¹²⁴

114. On September 15, 2021, The International Union of Operating Engineers submitted a written comment in favor of the Project stating that the "Project "will provide numerous positive human impacts," such as: (1) providing "nearly 900 job opportunities for Minnesota's highly skilled energy infrastructure construction workforce;" (2) providing "family sustaining wages and benefits;" and (3) using local union labor to "keep more of the project's monetary benefits within the local economy and Minnesota tax base."¹²⁵

115. On September 15, 2021, the City of Becker submitted comments concerning the scope of the EA, identifying alternatives to be evaluated in the EA.¹²⁶

116. On September 15, 2021, the Minnesota Department of Transportation (MnDOT) submitted comments concerning the Project.¹²⁷

117. On September 15, 2021, the Minnesota Department of Natural Resources (MDNR) submitted comments regarding issues to be evaluated in the EA, including the Project's vegetation management plan, fencing, and potentially unknown wells.¹²⁸

118. On September 15, 2021, Betsy Armstrong submitted a written comment against the Project, questioning facts about solar energy production. She argues that "reliance on renewable energy sources is not dependable;" the "manufacture of solar panels is a dirty and energy-intensive process;" and "solar farms require a huge amount of land that could otherwise be available for industries employing greater numbers of employees."¹²⁹

119. On September 15, 2021, Bret Collier of Big Lake, Minnesota, submitted a written comment against the Project. Mr. Collier called the Project a "farce" and stated that solar energy is not reliable or cost-effective and will "reduce the standard of living" for those in the region.¹³⁰

120. On September 15, 2021, Stacy Kotch Egstad from MnDOT submitted a written comment neither in favor of nor against the Project. Ms. Egstad states that "MnDOT views solar generating projects as it would any other private commercial

¹²³ Public Comment–Received Outside Comment Period- K. And J. Goenner (June 9, 2021) (eDocket No. 20216-174915-01).

¹²⁴ Informational Letter (September 7, 2021) (eDocket No. 20219-177763-03).

¹²⁵ Comments (September 15, 2021) (eDocket No. 20219-177981-01).

¹²⁶ Ex. EERA-3 (Public Comments Received on the Scope of the EA).

¹²⁷ Comments (September 15, 2021) (eDocket No. 20219-177967-01).

¹²⁸ Comments (September 15, 2021) (eDocket No. 20219-177962-01).

¹²⁹ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹³⁰ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

venture and does not consider a solar generating project to be a public utility for transportation purposes.” Ms. Egstad’s comment goes on to encourage Xcel Energy to engage in coordination with the MnDOT.¹³¹

121. On September 16, 2021, LIUNA submitted comments in favor of the Project, stating that “the project offers unique environmental and socioeconomic benefits compared to a typical greenfield solar installation...”. LIUNA also addressed issues that it believed should be studied in the EA. Specifically, it requested that EERA include an analysis of the Project’s “unique environmental and socioeconomic benefits compared to a typical greenfield solar installation.”¹³²

122. On September 21, 2021, EERA filed a batch of public comments on scoping.¹³³

123. On September 21, 2021, Chris, Ray, and Andy Person of Clear Lake, Minnesota, submitted a comment against the Project, stating that potential effects of the solar project on local wildlife is among their largest concerns. The Persons’ comment points out that the turtle population is most at risk and that the best way to avoid extinction is to avoid habitat disturbances. The Persons also express concern over the loss of agricultural land and the long-term effects of nonrecyclable materials used in solar panels on the environment. In summary, the Persons recommend “minimizing the number of solar fields throughout County Road 8’s farmland.”¹³⁴

124. Mona Smith submitted a written comment in favor of the Project, stating, “[w]e support the Sherco solar project as it will provide income to our families for many years. We also support the construction and operation jobs it will create, and the clean renewable energy it will produce.”¹³⁵

125. Nate and Christina Hayes submitted a written comment in favor of the Project, stating that the Project “is the best financial option for our family and business in the long term.” The Hayes write: “We want to emphasize our support for the solar project and want our land to be developed for solar energy production. We do not want to miss out on the economic opportunity that the solar project provides.”¹³⁶

126. On September 21, 2021, Randy Seely submitted two written comments against the Project stating, “I do not support solar power” and “I don’t believe in shutting down Sherco coal operated plants.” Mr. Seely went on to say, “I have concerns about the impacts to the environment and the natural beauty of the farmland and the land surrounding the Mississippi River.” Mr. Seely argues that “there will be degradation to wildlife and natural habitats” if the solar project is completed.¹³⁷

¹³¹ Comments (September 15, 2021) (eDocket No. 20219-177967-01).

¹³² Comments (September 16, 2021) (eDocket No. 20219-177999-02).

¹³³ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹³⁴ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹³⁵ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹³⁶ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹³⁷ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

127. Ross Imholte submitted a written comment in favor of the Project, stating that the “solar development will provide me with a stable source of long-term income for at least the next 35 years.”¹³⁸

128. On September 21, 2021, Russ Armstrong of Becker, Minnesota, submitted a written comment raising concerns about the Project. Mr. Armstrong’s comments center on the following three topics: (1) “The route permit for the east and west 345 kV transmission lines”; (2) “the location of the sites”; and (3) “incomplete consideration of factors in the environmental assessment scoping process.”¹³⁹

129. Raeanne Danielowski of the Sherburne County Board of Commissioners submitted a written comment supporting “the general concept of the project,” but also expressed having concerns “regarding the location as proposed.” Ms. Danielowski mentioned that “the proposed solar project will result in loss of productive agricultural land and impact the local agricultural economy.” Ms. Danielowski concludes her comment by encouraging Xcel Energy to have “active conversations with the City regarding the issues identified.”¹⁴⁰

130. On September 21, 2021, Wanda Herkenhoff of Becker, Minnesota, submitted a written comment expressing general concern about switching from natural gas to solar panels. Ms. Herkenhoff makes the following arguments: (1) “Solar is unpredictable & intermittent especially in our area”; (2) there is a risk of toxic lead and cadmium leaching from the panels into the water table and land; (3) the electromagnetic fields associated with the HVTLs could be dangerous to people’s health; and (4) “Becker already has enough toxic business’s [sic] taking up many acres of land...”¹⁴¹

131. On September 21, 2021, the International Brotherhood of Electrical Workers (IBEW) Local 292 submitted comments expressing support for the Project. IBEW noted that the Project would provide work opportunities in the construction industry in Minnesota.¹⁴²

132. On September 21, 2021, Jayme Car submitted a written comment against the Project, suggesting that the Project would not be best for the land use or community.¹⁴³

133. On September 21, 2021, Larry Alford submitted a written comment against the Project, stating, “Why wouldn’t they use the area under the present high lines instead of using A-1 ag land?”¹⁴⁴

¹³⁸ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹³⁹ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹⁴⁰ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹⁴¹ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹⁴² Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹⁴³ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

¹⁴⁴ Public Comment–On Scoping (September 21, 2021) (eDocket No. 20219-178136-03).

134. On September 27, 2021, Clear Lake Township submitted comments in response to the August 31, 2021, scoping meeting held at Becker High School. The township noted its support for the Project and explained that it had not discussed annexation with the City of Becker.¹⁴⁵ Additionally, the Project, in their opinion, would eliminate “the pumping of hundreds of millions of gallons of irrigation water and the application of thousands of tons of commercial grade fertilizers and chemicals to the land,” thereby improving the ground water and the environment.¹⁴⁶

135. On December 14, 2021, the Minnesota Department of Agriculture (MDA) submitted comments concerning the Project’s AIMP. MDA indicated that its concerns regarding the AIMP had been addressed, with the clarification that MDA’s “definition of earthmoving activities extends to include any activity that poses the risk of mixing topsoil with subsoils.”¹⁴⁷

136. On February 7, 2022, the City of Becker submitted a document prepared by its attorneys titled, “City of Becker’s Environmental Review Submission,” as well as five attachments.¹⁴⁸

137. On April 5, 2022, public comments from R.D. Offutt Farms were filed expressing their continued support for the Project.¹⁴⁹

138. On April 6, 2022, the City of Becker filed the Direct Testimony of Jeff O’Neill.¹⁵⁰

139. On April 7, 2022, the City of Becker filed exhibits confirming an agreement between the City of Becker and Xcel Energy to support Commission approval of the Site Alternative 1A.¹⁵¹

140. On April 14, 2022, the Interagency Vegetation Management Plan Working Group (VMPWG) filed comments on the revised VMP.¹⁵²

141. On April 20, 2022, the Center for Energy and Environment (CEE) filed written comments in support of the Project. CEE asserts that the Project will help support the Becker community and plant workers by creating local, high-quality jobs; improving workforce diversity in the utility sector; and reducing greenhouse gas and other pollutant emissions of Xcel Energy’s system.¹⁵³

¹⁴⁵ Public Comment—On Scoping (September 27, 2021) (eDocket No. 20219-178283-01).

¹⁴⁶ Public Comment—On Scoping (September 27, 2021) (eDocket No. 20219-178283-01).

¹⁴⁷ Ex. EERA-6 (Minnesota Department of Agriculture Review of the Sherco Solar Project’s AIMP).

¹⁴⁸ Ex. EERA-7 (White Paper for EA Consideration).

¹⁴⁹ Public Comment—RDO (April 5, 2022) (eDocket No. 20224-184465-01).

¹⁵⁰ Testimony (April 6, 2022) (eDocket No. 20224-184514-01).

¹⁵¹ Exhibits-Hearing (April 7, 2022) (eDocket No. 20224-184516-02); Exhibits-Hearing (April 7, 2022) (eDocket No. 20224-184515-01).

¹⁵² Ex. EERA-11 (Vegetation Management Group Review of the Sherco Solar Project’s VMP).

¹⁵³ Public Comments—Center for Energy and Environment (April 20, 2022) (eDocket No. 20224-184968-03).

142. On April 21, 2022, Representative Jamie Long, Chair of the Climate and Energy Committee in the Minnesota House of Representatives, submitted written comments in favor of the Project. Representative Long stated that the Project would help replace some of the lost tax base from retiring coal plants, create 900 union construction jobs, and place an emphasis on equity and diversity in hiring for the Project.¹⁵⁴

143. On April 21, 2022, Xcel Energy filed a letter to the Becker Township Board, which included SRF Consulting's Traffic Analysis for the Project. The analysis investigated traffic and related safety concerns for the township's business park and County Rd 11 (165th Ave SE) and 149th St SE and proposed prudent solutions.¹⁵⁵

144. On April 25, 2022, Local 292 submitted written comments in favor of the Project. The comments stated that IBEW Local 292 Members, Xcel Energy ratepayers, the residents living near the proposed facility, and the general public, should expect a safe, reliable, and high-quality installation. IBEW Local 292 also asked the Commission to add a permit condition that the Project must follow the requirements contained in the Minnesota State Building and Electrical Standards.¹⁵⁶

145. On April 27, 2022, Kelsey Murphy submitted written comments in favor of the Project, stating that that replacing a coal plant with a solar plant will help Minnesota reach its carbon neutrality goals and make it a safer state to live in the long-term.¹⁵⁷

146. On May 3, 2022, John Adams submitted written comments in favor of the Project, stating that the Project is an excellent use of existing power transmission infrastructure and that the new solar farm would provide economical stable power for 30 or more years.¹⁵⁸

147. On May 4, 2022, the Minnesota AFL-CIO Racial and Economic Justice Committee (MN AFL CIO) submitted written comments in support of the Project. The MN AFL CIO asserted that the Project will provide job opportunities accessible to Black, Indigenous and People of Color (BIPOC) workers who live in and around the Twin Cities and St. Cloud. Additionally, the MN AFL CIO stated that they expect that the Project will ensure fair access to economic opportunity associated with clean energy development for BIPOC and environmental justice communities.¹⁵⁹

148. On May 5, 2022, LIUNA submitted written comments in support of the Project. LIUNA argues that the Project will offer four unique benefits: (1) it will help mitigate negative socioeconomic impacts associated with the early retirement of Xcel's Sherco coal units; (2) also it will play a key role in advancing equity and inclusion goals;

¹⁵⁴ Public Comment–Representative Long (April 21, 2022) (eDocket No. 20224-185010-02).

¹⁵⁵ Letter to Becker Township Board and SRF Consulting Traffic Analysis (April 21, 2022) (eDocket No. 20224-184990-03).

¹⁵⁶ Public Comment–IBEW Local 292 (April 25, 2022) (eDocket No. 20224-185085-01).

¹⁵⁷ Public Comment–Kelsey Murphy (April 27, 2022) (eDocket No. 20224-185212-01).

¹⁵⁸ Public Comment–John Adams (May 3, 2022) (eDocket No. 20225-185520-01).

¹⁵⁹ Public Comment–MN AFL CIO (May 4, 2022) (eDocket No. 20225-185529-03).

(3) it will minimize environmental impacts; and (4) it will directly contribute to environmental improvements.¹⁶⁰

149. On May 5, 2022, the North Central States Regional Council of Carpenters submitted a letter in support of the Project, together with the Board of Electricity meeting minutes from January 11, 2022. The letter stated that the Minnesota Department of Labor and Industry verified with the Vice President of Corporate Development at Xcel Energy that the Project will be fully constructed, owned, and operated by Xcel, and would meet the utility exemption from the Minnesota State Building and Electrical Standards.¹⁶¹

150. On May 5, 2022, the North Central States Regional Council of Carpenters submitted written comments in support of the Project. The Council asserts that the Project serves as a “great example” for how to successfully integrate underrepresented communities into the energy industry through union apprenticeship opportunities. Additionally, the Council stated that they do not believe the Commission should impose licensure requirements to the Project that conflict with exemptions under state law.¹⁶²

151. On May 5, 2022, the MDNR submitted written comments on the following topics: snowmobile trails, loggerhead shrike, Blanding’s turtles, security fencing, wildlife-friendly erosion control, facility lighting, the project’s vegetation management plan, dust control, avian flight diverters, and Site Alternative 1A. The MDNR advised that none of the MDNR permits or licenses required for the Project will be granted until the Commission has issued all necessary site and route permits for this Project.¹⁶³

152. On May 5, 2022, Kelsey Brodt submitted written comments in support of the Project. Ms. Brodt states that Minnesota is behind on clean energy and the state needs to decrease carbon emissions by 30 percent by 2015 to meet the Intergovernmental Panel on Climate Change standards.¹⁶⁴

153. On May 5, 2022, the EERA submitted a review of the decommissioning plan. The EERA recommended that Xcel Energy: revise the draft decommissioning plan to incorporate updates to the Project description; revise the decommissioning objective; revise the permits and notifications section; revise the tasks and timing section; revise the estimated costs section; add a section on the schedule for updates at five-year intervals; revise the financial assurance section; and revise Section 9.1 of the Sample Site Permit to clarify the timing of the filings.¹⁶⁵

154. On May 6, 2022, the Minnesota Farmers Union submitted written comments in support of the Project. The organization claims that the Project will reduce

¹⁶⁰ Public Comment–LIUNA (May 5, 2022) (eDocket No. 20225-185581-03).

¹⁶¹ Public Comment–North Central States Regional Council of Carpenters at Attachment 1, Board of Electricity Meeting Minutes (May 5, 2022) (eDocket No. 20225-185580-04).

¹⁶² Public Comment–Site Permit Sherco Solar Comments (May 5, 2022) (eDocket No. 20225-185580-01).

¹⁶³ Public Comment–MDNR (May 5, 2022) (eDocket No. 20225-185576-01).

¹⁶⁴ Public Comment–K. Brodt (May 5, 2022) (eDocket No. 20225-185575-02).

¹⁶⁵ EERA Review of Draft Decommissioning Plan (May 5, 2022) (eDocket No. 20225-185560-03).

carbon emissions by replacing the Sherco Generating Plant and is properly sited because it is not located on prime farmland.¹⁶⁶

SITE PERMIT

I. SITE PERMIT CRITERIA

155. 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.”¹⁶⁷

156. On February 26, 2021, the Applicant submitted information to the EERA requesting a size determination for the Solar Project. On March 22, 2021, the EERA informed the Applicant that the Solar 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.¹⁶⁸

157. A LEPPG powered by solar energy is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04. Applicant filed the Application under the alternative permitting process as established by the Commission in Minn. R. 7850.200 – 7850.3900 (2021).¹⁶⁹

158. Under Minn. Stat. ch. 216E.04, for a LEPPG permitted under the alternative permitting process, the EERA prepares for the Commission an environmental assessment (EA) containing information on the human and environmental impacts of the proposed Project and addressing mitigating measures. Under the alternative permitting process, the EA is the only state environmental review document required to be prepared for the Project.¹⁷⁰

159. 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.”¹⁷¹

160. Under the PPSA, the Commission and the Administrative Law Judge 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

¹⁶⁶ Public Comment–Minnesota Farmers Union (May 6, 2022) (eDocket No. 20225-185596-01).

¹⁶⁷ Minn. Stat. § 216E.01, subd. 5.

¹⁶⁸ EERA Compliance Review–Size Determination (Mar. 22, 2021) (eDocket No. 20213-172093-01).

¹⁶⁹ Notice of Application Under Alternative Permitting Process (Mar. 22, 2021) (eDocket No. 20213-172092-02); Ex. EERA-8 at 1.

¹⁷⁰ Ex. EERA-8 at 8.

¹⁷¹ Minn. Stat. § 216E.03, subd. 7.

generating plants and high-voltage Transmission Lines 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;

(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 subdivision 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 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; and

(12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.¹⁷²

161. In addition to the PPSA, the Commission and the Administrative Law Judge are governed by Minn. R. 7850.4100 (2021), which mandates consideration of the following factors when determining whether to issue a permit for a LEPGP or a route permit for a HVTL:

- 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;¹⁷³
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- K. electrical system reliability;
- 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.¹⁷⁴

162. There is sufficient evidence in the record for the Administrative Law Judge to assess the Solar Project on the record using the criteria and factors set out above.

II. APPLICATION OF SITING CRITERIA TO THE PROPOSED SOLAR PROJECT

A. Human settlement

163. Minnesota law requires consideration of the Solar Project's effects on human settlement, including displacement of residences and businesses, noise created

¹⁷² Minn. Stat. § 216E.03, subd. 7.

¹⁷³ This factor is not applicable because it applies only to power plant siting.

¹⁷⁴ Minn. R. 7850.4100.

during construction and by operation of the Project, and impacts to aesthetics, cultural values, recreation, and public services.¹⁷⁵

164. The Solar Project is in a rural area just outside of the City of Becker, and within Becker and Clear Lake Townships.¹⁷⁶ Based on the 2010 U.S. Census, the population of Sherburne County is 88,499 persons, which represents 1.6 percent of the total population of Minnesota.¹⁷⁷

1. Displacement

165. No displacement is anticipated as a result of the Solar Project; as such, no mitigation is proposed.¹⁷⁸

2. Noise

166. The proposed Solar Project is in a rural, agriculturally dominated area. Ambient noise levels in these types of locations are generally between 30 and 40 dBA during daytime hours, with higher ambient noise levels of 50 to 60 dBA expected near roadways. The primary noise receptors within the vicinity of the site would be residences.¹⁷⁹

167. Background noise in the vicinity of the Solar Project is typically a result of farming equipment or operations, wind, snowmobiles, and vehicle and rail traffic along U.S. Highway 10 and the Burlington Northern Santa Fe Railroad. Noise for the Solar Project will mostly occur during the construction phase of the project due to heavy equipment operation and increased vehicle traffic transporting construction materials and personnel to and from the work area. It is anticipated that construction activities will only occur during daylight hours.¹⁸⁰

168. The results of noise modeling show that noise levels will be less than 50 dBA between 93 and 143 feet from the inverter. Similarly, noise levels will be less than 50 dBA between 5 and 82 feet from the trackers. The closest residence to the facility is 185 feet away from the edge of a solar array. The distance of the nearest inverter to a residence is 599 feet. Noise from the electric collection system is not expected to be perceptible.¹⁸¹

169. No noise impacts are anticipated during operation because inverters will be located on the interior portions of the Solar Project away from receptors. Therefore, no mitigation measures are required.¹⁸²

¹⁷⁵ Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, subp. A.

¹⁷⁶ Ex. XCEL-01 at 92 (Application).

¹⁷⁷ Ex. XCEL-01 at 92 (Application).

¹⁷⁸ Ex. XCEL-01 at 75 (Application).

¹⁷⁹ Ex. EERA-8 at 70 (EA).

¹⁸⁰ Ex. EERA-8 at 70-73 (EA).

¹⁸¹ Ex. EERA-8 at 72 (EA).

¹⁸² Ex. EERA-8 at 70-73 (EA).

3. Aesthetic impacts

170. The Solar Project site topography is generally flat, with elevations ranging from 925 to 985 feet above sea level. Land use is dominated by agricultural crops (potatoes and corn).¹⁸³

171. There are two residences and associated structures within the perimeter of the Solar Project. Both properties are under ownership of participating landowners. One residence is located in the East Block on the south side of 137th Street. The other residence is located in the west-central portion of the West Block.¹⁸⁴

172. Because they are generally large facilities with numerous geometric and sometimes reflective surfaces, solar farms create visual impacts. However, being visible is not necessarily the same as being intrusive. Because of their relatively low profile, the arrays will not be visible from great distance and the associated visual impacts will be minimal. The minimal aesthetic impacts can be mitigated by screening, such as vegetative tree rows, berms, or fences. Vegetative screening would be most effective in select lines of sight and when the vegetation used is coniferous and functional year-round. Aesthetic impacts can be further mitigated by ensuring that damage to natural landscapes during construction is minimized. Applicant indicates that lighting at the Project will be minimal and will be used primarily for repair or maintenance work. The Project substations will have security lighting, and Project entrances will have motion activated down lit security lights. Requiring the use of shielded lighting, and prohibiting blue hue lighting, will minimize aesthetic impacts where lighting is required.¹⁸⁵

173. In its May 5, 2022 written comments, MDNR recommended a special permit condition requiring the permittee to use shielded and downward facing lighting and LED lighting that minimizes blue hue at Project substations.¹⁸⁶ In its response to comments, Xcel Energy stated it has no objection to such a special condition, and proposed the following language based on MDNR comments:

Permittee must use shielded and downward facing lighting and LED lighting that minimizes blue hue at the project substations. Downward facing lighting must be clearly visible on the site plan submitted for the project.¹⁸⁷

174. The record demonstrates that Applicant has taken steps to avoid and minimize impacts to aesthetics. Further, Applicant's proposed site permit condition related to lighting and the Sample Site Permit contains adequate general conditions to address aesthetic impacts. Section 5.3.6 (Aesthetics) of the Sample Site Permit requires Applicant to consider visual impacts from landowners and land management

¹⁸³ Ex. EERA-8 at 60 (EA).

¹⁸⁴ Ex. EERA-8 at 68-69 (EA).

¹⁸⁵ Ex. EERA-8 at 62 (EA).

¹⁸⁶ Comments (May 5, 2022) (eDocket No. 20225-185576-01).

¹⁸⁷ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

agencies.¹⁸⁸ To address aesthetic concerns raised by commenters, the Commission should require Applicant to minimize visual impacts.¹⁸⁹

4. Cultural values

175. No impacts to cultural values are anticipated from the construction and operation of the Solar Project and, therefore, no mitigation is deemed warranted. The Project will not adversely impact the work or recreation of residents in the vicinity of the Solar Project that underlie the area's cultural values, nor will it adversely impact geographical features that inform these values.¹⁹⁰

5. Recreational resources

176. Recreational areas in the vicinity of the Project include snowmobile trails and the Mississippi River. These features offer recreation opportunities that attract residents and tourists. There are no MDNR State Natural Areas (SNA), state trails, Wildlife Management Areas (WMA), state parks, or migratory waterfowl feeding and resting areas within one mile of the Solar Project.¹⁹¹

177. There are recreational resources in the Project area. The closest resource is a snowmobile trail (Trail #209247) that passes through the Project area. There are no state forests, national forests, or national wildlife refuges in close proximity to the Project boundary. There are no city or county parks in the Project area.¹⁹²

178. In its May 5, 2022 written comments, the MDNR recommended a special permit condition requiring the permittee to coordinate with the local snowmobile trail associations to reroute County Trail #209247.¹⁹³ Xcel Energy has initiated conversations with the Big Lake Sno Cruisers, the local snowmobile club, who posted a letter of support for the Project on May 20, 2021.¹⁹⁴ In its response to comments, Xcel Energy proposed the following modified site permit special condition as modified from that which was included in the Sample Site Permit:

Snowmobile Trail

The Permittee shall coordinate with local snowmobile trail associations to reroute Sherburne County Trail #209247. At least ~~30~~14 days prior to the preconstruction meeting, the Permittee shall provide the Commission with documentation identifying the location of the rerouted snowmobile trail.¹⁹⁵

¹⁸⁸ Ex. PUC-204 at 4 (Sample Site Permit from July 8, 2021 Briefing Papers).

¹⁸⁹ See, e.g., Tr. Vol. I.

¹⁹⁰ Ex. EERA-8 at 92 (EA).

¹⁹¹ Ex. EERA-8 at 133-34 (EA).

¹⁹² Ex. EERA-8 at 133 (EA).

¹⁹³ Public Comment–MDNR (May 5, 2022) (eDocket No. 20225-185576-01).

¹⁹⁴ Public Comment–Big Lake Sno Cruisers (May 20, 2021) (eDocket No. 20215-174336-01).

¹⁹⁵ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

179. In terms of recreational resource impacts, the presence of the Solar Project will not be dissimilar to the other man-made features in the area, such as the existing transmission lines, railroads, highways, municipal developments, the Sherburne County Substation, and the Sherco Generating Plant in this area. The inclusion of a site permit condition related to Sherburne County Trail #209247, as modified by the Applicant, requires the Applicant to coordinate with local snowmobile associations to reroute the trail. No significant impacts on recreation or tourism are anticipated.¹⁹⁶

6. Public services and infrastructure

180. The proposed Project is in a rural area. Residences located outside of incorporated areas (cities and towns) rely on private wells for water and individual sewage treatment systems (septic tanks and drain fields) for sanitary services.¹⁹⁷

181. Other public services in the Project area are located primarily within municipalities. Public works and utility departments design, build, and maintain streets and sidewalks, sanitary sewers, water mains, and public landscaping. Public facilities within municipalities in the Project area include swimming pools, ice rinks, parks, and libraries. Xcel Energy designed the Solar Project area to exclude a strip of land along the southeastern boundary of the West Block for the installation of city-owned public utilities.¹⁹⁸

182. Electrical service in the Project area is provided by Xcel Energy and Connexus Energy. Natural gas service is provided by Xcel Energy and CenterPoint Energy. There are no pipelines in the footprint of the Solar Project.¹⁹⁹

183. With proper coordination, Project construction and operation should not directly affect any of these public utilities. Construction of the Project will temporarily increase the population and workforce present within the vicinity of the Project. This increase in population may temporarily increase individuals requesting the use of public services. However, this minimal increase in population should not create the need for more public services than already exist. Therefore, impacts to the public services system associated with a temporary increase in population are not anticipated.²⁰⁰

184. Section 5.3.13 (Roads) of the Sample Site Permit addresses roads. Section 5.3.13 of the Sample Site Permit requires the Applicant to inform road authorities of roads that will be used during construction and acquire necessary permits and approvals for oversize and overweight loads. Additionally, Section 5.3.3 (Public Services, Public Utilities, and Existing Easements) of the Sample Site Permit requires

¹⁹⁶ Ex. EERA-8 at 133-34 (EA).

¹⁹⁷ Ex. EERA-8 at 103 (EA).

¹⁹⁸ Ex. EERA-8 at 103 (EA).

¹⁹⁹ Ex. EERA-8 at 103 (EA).

²⁰⁰ Ex. EERA-8 at 103 (EA).

the Applicant to minimize disruption to public services and public utilities and to restore service promptly if disrupted by the Applicant.²⁰¹

7. Socioeconomics, property values, and environmental justice

185. The record demonstrates that the Project will result in both short- and long-term benefits to the local economy.²⁰² Additionally, Section 8.5 (Labor Statistic Reporting) of the Sample Site Permit requires quarterly reports concerning efforts to hire Minnesota workers.²⁰³

186. 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.²⁰⁴

187. Xcel Energy and NG Renewables have stated that procurement of construction resources will give preference to women, veteran, and minority owned business contractors. Xcel Energy also commits to establish a “Workforce and Training Development Program,” which will help provide utility industry skills and training to women and members of the BIPOC communities. 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 \$115 million in wages from nearly 900 union construction jobs, in addition to opportunities for sub-contracting to local contractors for gravel, fill, and civil work.²⁰⁵

188. The EA concluded that widespread negative impacts to property values are not anticipated. However, in unique situations it is possible that individual property values might be negatively impacted. Factors relevant to property values can also be mitigated through proper siting, best management practices for restoration and vegetation management, and screening the site (using berms, deer fencing, and vegetation).²⁰⁶

189. Impacts to communities of environmental justice concern are not anticipated to occur as a result of the Solar Project.²⁰⁷

190. In general, it is anticipated that the overall socioeconomic impacts associated with the Project will be positive: fair wages will be paid and expenditures will

²⁰¹ Ex. PUC-204 at 9 (Sample Site Permit from July 8, 2021 Briefing Papers).

²⁰² Ex. EERA-8 at 82-85 (EA).

²⁰³ Ex. PUC-204 at 15 (Sample Site Permit from July 8, 2021 Briefing Papers).

²⁰⁴ Ex. EERA-8 at 81 (EA).

²⁰⁵ Ex. EERA-8 at 81 (EA).

²⁰⁶ Ex. EERA-8 at 76 (EA).

²⁰⁷ Ex. EERA-8 at 83 (EA).

be made to local businesses and landowners during the Project's construction and operation.²⁰⁸

8. Zoning and land use

191. Pursuant to Minn. Stat. § 216E.10, subd. 1, a site permit or route 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.²⁰⁹

192. The Solar Project is located within three zoning jurisdictions: Sherburne County, Becker Township, and the City of Becker. All three zoning authorities have a solar energy ordinance. 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 the general agricultural district. Solar farms are not permitted within the Mississippi and Rum Scenic and Recreational River Districts.²¹⁰

193. There are approximately 72 acres of the East Block within the City of Becker. This area will only include a temporary laydown area during construction that is on Xcel Energy property and within the Sherco Generating Plant boundary (which is zoned as power generation). Solar panels will not be sited within the City of Becker.²¹¹

194. Sherburne County 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. The Shoreland Ordinance does not allow solar, as a primary use, in the Shoreland Overlay District. Xcel Energy applied the Shoreland Ordinance Structure Setback of 150 feet from the ordinary highwater mark of natural environment lakes subject to the Shoreland Ordinance, which is consistent with other permitted uses in the Shoreland Overlay District.²¹² The Solar Project complies with MDNR's recommended conditions for allowing solar in shoreland areas, and the Project is compatible with environmental preservation and the efficient use of resources.²¹³

195. The Solar Project generally complies with the setbacks within each of these three zoning authorities and districts. Sherburne County and Becker Township have similar structure setback requirements, with minor differences in the side yard or rear yard setback. Sherburne County requires a 50-foot setback and Becker Township

²⁰⁸ Ex. EERA-8 at 82 (EA).

²⁰⁹ Ex. XCEL-01 at 103 (Application).

²¹⁰ Ex. XCEL-01 at 103 (Application).

²¹¹ Ex. XCEL-01 at 104 (Application).

²¹² Ex. XCEL-01 at 104 (Application); Ex. XCEL-128 at 4 (Risse Direct Testimony).

²¹³ Ex. XCEL-128 at 13, 14 (Risse Direct Testimony).

requires a 100-foot setback from non-participating property lines. The Project utilizes Sherburne County's standard setback of 50 feet to provide a uniform structure setback across the Project and to allow for consistency and efficiency for Project design.²¹⁴

196. The primary land use category within the Solar Project area is cultivated crops. The remainder of the Solar Project area consists of hay crops and pasture land (3.8 percent), developed land (2.1 percent), emergent herbaceous wetlands (0.3 percent), open water (0.3 percent), deciduous/evergreen/mixed forest land (0.1 percent), herbaceous land (0.1 percent), barren land (0.1 percent), and less than one percent each of woody wetlands and scrub/shrub land.²¹⁵

197. 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 a minimal impact on the rural character of the surrounding area or Sherburne County. Of the 277,069 acres that comprise Sherburne County, approximately 102,544 acres (37 percent) are farmland. The conversion of 2,912.7 acres of cultivated cropland to solar facility use for the life of the Project would reduce the amount of agricultural land in the county by 2.8 percent.²¹⁶

198. Xcel Energy prepared an Agricultural Impact Management Plan (AIMP) with respect to agricultural land within the Project. This AIMP has incorporated best management practices (BMPs) into siting procedures. It also identifies pre-construction and construction methods to avoid and minimize impacts to soil and site productivity so that pre-construction agricultural productivity 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.²¹⁷

199. There are no properties in government programs or with conservation easements (such as Native Prairie Bank, Reinvest in Minnesota, Forest Legacy easements, or U.S. Fish and Wildlife Service conservation easements) within the Solar Project site.²¹⁸

200. After the useful life of the Project, the development area should be restored to agricultural use or other planned use.²¹⁹

²¹⁴ Ex. XCEL-128 at 4 (Risse Direct Testimony); Ex. XCEL-01 at 104 (Application).

²¹⁵ Ex. EERA-8 at 125 (EA).

²¹⁶ Ex. XCEL-01 at 105 (Application).

²¹⁷ Ex. XCEL-01 at 105-106 (Application).

²¹⁸ Ex. EERA-8 at 178 (EA).

²¹⁹ Ex. XCEL-01 at 14 (Application).

B. Public health and safety

201. Construction and operation of the Solar 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 Solar Project, including law enforcement agencies, local fire departments, ambulance services, and 911 services. Any accidents that might occur during construction of the Solar Project would be handled through local emergency services.²²⁰

202. The sources of electric and magnetic fields (EMF) related to the Solar Project include emissions from electrical collection lines and from the transformers installed at each inverter and collector substations. EMF 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 public exposed to magnetic fields is 833 milliGauss.²²¹

203. Levels of EMF from the Solar Project are expected to be below acceptable guidelines.²²²

204. All electrical components in the Solar 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.²²³

205. Established industry safety procedures will be followed during and after construction of the Solar Project. These include clear signage during all construction activities and fencing of all Solar Project facilities to prevent public access. In addition, the West and East Collector Substations will be fenced and accessible only by authorized personnel.²²⁴

206. No significant impacts to public health and safety are expected to result from construction and operation of the Project. Further, the Sample Site Permit contains conditions to address public health and safety. Section 4.3.20 (Public Safety) of the Sample Site Permit addresses public safety, including landowner educational materials, appropriate signs and gates, and similar measures. Section 8.10 (Emergency Response) requires permittees file an emergency response plan with the Commission

²²⁰ Ex. XCEL-101 at 63 (Application).

²²¹ Ex. XCEL-101 at 65 (Application).

²²² Ex. XCEL-101 at 70 (Application).

²²³ Ex. XCEL-101 at 70 (Application).

²²⁴ Ex. XCEL-101 at 63 (Application).

prior to operation. Section 8.11 (Extraordinary Events) requires disclosure of extraordinary events, such as fires and other concerns.²²⁵

C. Land-based economies

1. Agriculture

207. Approximately 2,913 acres of cultivated crop land lie within the Solar Project footprint, which constitutes 2.8 percent of the agricultural land in Sherburne County (102,544 acres).²²⁶

208. No prime farmland or farmland of statewide importance is present within the Project.²²⁷

209. Agricultural production would continue in the surrounding areas during construction and operation of the Project. The revenue lost from removing land from agricultural production will be offset by leases and purchase options with the landowners. Areas disturbed during construction will be repaired and restored to pre-construction contours and characteristics to the extent practicable. This restoration will allow the topography within the Solar Project footprint to drain properly, blending with the natural terrain, and will allow for revegetation to minimize erosion or continued agricultural production.²²⁸

2. Forestry

210. There are no forestry operations within the Solar Project footprint. Wooded areas within the Solar Project consist of isolated rows of trees that are used as shelter belts between agricultural fields, near farmsteads, along roadways, and in riparian areas along waterbodies. Some tree clearing will be necessary for construction of the Solar Project. However, the development of the site has been designed to avoid tree clearing on the perimeter of the Solar Project, which minimizes the total amount of tree clearing required and provides a natural buffer between the Solar Project and the surrounding area.²²⁹

3. Tourism

211. No impact on tourism is anticipated and no mitigation measures are proposed.²³⁰

²²⁵ See Ex. PUC-204 (Sample Site Permit from July 8, 2021 Briefing Papers).

²²⁶ Ex. EERA-8 at 126 (EA).

²²⁷ Ex. EERA-8 at 126 (EA).

²²⁸ Ex. EERA-8 at 126 (EA).

²²⁹ Ex. EERA-8 at 129 (EA).

²³⁰ Ex. EERA-8 at 133-34 (EA).

4. Mining

212. The location within the Sherco Generating Plant, where aerial photography depicts a gravel operation, is slated for use as a temporary laydown area during construction. If necessary, this laydown area will be graded prior to construction to create a flat and stable workspace for staging and parking. No other mining resources are located within or directly adjacent to the Solar Project. Construction and operation of the Solar Project would not impact commercial mining operations and, therefore, no mitigative measures are proposed.²³¹

D. Archaeological and historic resources

213. Minnesota Rule 7850.4100, subp. D, requires consideration of the effects of the Solar Project on historic and archaeological resources.

214. Because the West and East Blocks of the Solar Project are geographically distinct, some previously recorded archaeological sites and historic architectural resources are within one mile of both blocks. Two previously recorded archaeological sites were identified within one mile of the West Block. One of these sites is a “site lead” for a ghost town named Freemont City. “Site leads” are reported sites that have not been verified or their precise location is unknown. The other site is a precontact woodland habitation site.²³²

215. No previously recorded archaeological sites were identified within the East Block. However, three previously recorded archaeological sites were identified within one mile of the East Block. The sites consist of two precontact lithic scatters and recording of a single precontact artifact in an area of heavy disturbance.²³³

216. No previously recorded historic architectural resources were recorded within the West Block. However, five previously recorded historic architectural resources were identified within one mile of the West Block. The previously recorded historic architectural resources consist of one halfway house, the Ed Johnson Farm, the W.G. White Farmhouse, District School No. 23, and Minnesota Highway 10 (Elk River to St. Cloud).²³⁴

217. No previously recorded historic architectural resources were recorded within the East Block. Thirteen previously recorded historic architectural resources were identified within one mile of the East Block. The previously recorded historic architectural resources consist of five residences, four farmsteads (one of which has been removed), one bridge, the Great Northern Railway branch line (Big Lake Township

²³¹ Ex. EERA-8 at 132 (EA).

²³² Ex. EERA-8 at 137 (EA).

²³³ Ex. EERA-8 at 138 (EA).

²³⁴ Ex. EERA-8 at 138 (EA).

segment), Northern Pacific Railway branch line (Big Lake Township segment), and Minnesota Highway 10 (Elk River to St. Cloud).²³⁵

218. No archaeological or historic sites, or historic architectural resources were identified within the Solar Project footprint in the Phase Ia literature review or Phase Ia survey. The three National Register of Historic Places (NRHP)- listed resources that are within one mile of the Solar Project were determined to be eligible for listing in the NRHP based on their historic association with transportation. Construction and operation of the Solar Project would not adversely affect the ability of these resources to convey their historic association with transportation or affect the NRHP eligibility of these resources. The construction and operation of the Solar Project will not impact historic properties listed in, eligible for, or potentially eligible for listing in, the NRHP.²³⁶

219. Before construction of the Solar Project commences, Applicant will 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. If archaeological resources are discovered during construction, ground-disturbing activity will be halted in that location, the Minnesota State Historic Preservation Office (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 pursuant to Minn. Stat. § 307.08 (2020) and construction will cease in that area until adequate mitigation measures have been developed.²³⁷

220. The record demonstrates that the Project will not cause adverse impacts to archaeological and historic resources. Further, Section 4.3.14 (Archaeological and Historic Resources) of the Sample Site Permit addresses archeological and historic resources. If previously unidentified archaeological sites are found during construction, the Applicant would be required to stop construction and contact SHPO and the state archaeologist to determine how best to proceed. Ground disturbing activity will stop and local law enforcement will be notified should human remains be discovered.²³⁸

E. Natural environment

1. Surface waters

221. The Solar Project is located in the Upper Mississippi-Crow-Rum Watershed Basin. There are no lakes, rivers, watercourses, or water basins in the West or East Blocks of the Solar Project. The nearest Public Waters Inventory (PWI) rivers or watercourses are the Mississippi River, located approximately 0.1 mile to the south at its nearest point to the Solar Project (West Block), and the Elk River, located approximately 0.5 mile to the north at its nearest point to the Solar Project (East Block).

²³⁵ Ex. EERA-8 at 138 (EA).

²³⁶ Ex. EERA-8 at 139 (EA).

²³⁷ Ex. EERA-8 at 139 (EA).

²³⁸ Ex. PUC-204 at 9-10 (Sample Site Permit from July 8, 2021 Briefing Papers).

The surface waters within the Solar Project footprint are limited to two PWI wetlands in the East Block and two PWI wetlands located adjacent to the Solar Project footprint in the West Block.²³⁹

222. Because there are no lakes, rivers, watercourses, or water basins located within the Solar Project site, direct impacts to such features have been avoided through site selection. Potential indirect impacts through construction activities which move, remove, or otherwise handle vegetative cover and soils can occur in association to large infrastructure projects. Additionally, changes in vegetative cover and soils can change runoff and water flow patterns.²⁴⁰

2. Wetlands

223. Applicant assessed the potential for wetlands within the Solar Project footprint through desktop reviews of available resource (i.e., the National Wetlands Inventory (NWI) data, aerial photography, hydric soils maps, LiDAR, and digital elevation models). This was followed by a formal wetland delineation within the Solar Project footprint. The wetland delineation identified 10 wetlands in the West Block and five wetlands in the East Block.²⁴¹

224. The MDNR PWI was also reviewed to identify PWI wetlands within the Solar Project site. There are four PWI wetlands within the Solar Project footprint: two in the West Block and two in the East Block. PWI wetlands within the West Block are located in the northwest corner and are associated with adjacent PWI wetlands that are generally outside the Solar Project footprint. PWI wetlands within the East Block are located within the center of the Solar Project site and are associated with isolated basins.²⁴²

225. The Solar Project has been designed to avoid any direct impacts to all identified wetlands. The delineated wetlands that are also classified as PWI wetlands will be avoided by construction. There are delineated wetlands within the Solar Project footprint that are currently farmed wetlands. Applicant will avoid impacts to these delineated wetlands and revegetate them with a wet seed mix.²⁴³

3. Groundwater

226. Project infrastructure is not likely 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. Impacts to groundwater resources, including aquifers and the Mississippi River, are not anticipated.²⁴⁴

²³⁹ Ex. EERA-8 at 144, 147 (EA).

²⁴⁰ Ex. EERA-8 at 145 (EA).

²⁴¹ Ex. EERA-8 at 147 (EA).

²⁴² Ex. EERA-8 at 147 (EA).

²⁴³ Ex. EERA-8 at 147 (EA).

²⁴⁴ Ex. EERA-8 at 150 (EA).

4. Soils

227. None of the soils within the Solar Project are considered prime farmland. Less than one percent of soils are considered farmland of statewide importance, compaction prone, or water erodible. Approximately one percent of the Solar Project is underlain by hydric soils or soils containing hydric inclusions. Nearly all soils within the Solar Project are considered wind erodible and present potential revegetation concerns, indicating that additional mitigation measures may be required to minimize the likelihood of soil migration outside of workspaces and to ensure revegetation is successful.²⁴⁵

228. Impacts to soils will occur during the construction and decommissioning stages of the Solar Project. Construction may require some amount of grading to provide a level surface for the solar arrays. Because the Solar Project site is relatively level, existing agricultural fields, the need for grading is anticipated to be minimal. Areas of the site to be graded will have topsoil and organic matter stripped and segregated from the subsoil. Topsoil shall have temporary and permanent stabilization measures established in accordance with the Project's Stormwater Pollution Prevention Plan (SWPPP), the VMP, and the AIMP.²⁴⁶

229. 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. The VMP is developed in coordination with Minnesota Departments of Commerce, Natural Resources, and Agriculture; the Minnesota Pollution Control Agency; and the Board of Water and Soil Resources. The VMP will serve as a guide for site preparation, installation of prescribed seed mixes, management of invasive species and noxious weeds, and control of erosion/sedimentation.²⁴⁷

230. Impacts to soils are anticipated to be temporary and minor and would be mitigated through the proper use and installation of BMPs, such as minimizing the number of vehicles and protecting and maintaining topsoil during right-of-way clearing and tie line construction. The Permittee will be required to develop a SWPPP that complies with the MPCA rules and guidelines. Implementation of the protocols outlined in the SWPPP will minimize the potential for soil erosion during construction. Landowners will be compensated accordingly for any localized crop damage and soil compaction that may occur.²⁴⁸

5. Vegetation

231. The majority of the land within the Project area is cultivated agricultural land.²⁴⁹

²⁴⁵ Ex. EERA-8 at 156 (EA).

²⁴⁶ Ex. EERA-8 at 157 (EA).

²⁴⁷ Ex. EERA-8 at 157 (EA).

²⁴⁸ Ex. EERA-8 at 144 (EA).

²⁴⁹ Ex. EERA-8 at 126 (EA).

232. Agricultural land will be converted from an agricultural use to solar energy production for the life of the Project. Twenty acres of agricultural land used for temporary laydown areas outside the Solar Project fence will be used during construction. These areas will be returned to their pre-construction land use after construction.²⁵⁰

233. Agricultural land within the Solar Project footprint (outside of the substations, inverter skids, and access roads, which will be converted to developed land and impervious surfaces, totaling 78.4 acres) will be converted to perennial native vegetative cover with the goal of operating a certified pollinator-friendly solar facility, based on BWSR's Minnesota Habitat Friendly Solar Program guidance.²⁵¹

234. In addition, the anticipated benefits of implementation of the VMP, besides promoting pollinator habitat, include preservation of the soils and establishment of stable ground cover to minimize erosion, reduce runoff, and improve infiltration. Some tree clearing will be required in the interior portions of the solar blocks; however, trees around the perimeter will remain.²⁵²

235. The record demonstrates that Applicant has taken steps to avoid and minimize impacts to vegetation. Further, the Sample Site Permit contains adequate conditions to monitor and mitigate the Project's potential impacts on vegetation. Section 4.3.7 (Vegetation Removal) of the Sample Site Permit requires that vegetation clearing be limited to only the extent necessary for construction access and safe operation and maintenance of the Project. Section 4.3.9 requires the preparation of a VMP prior to construction. Section 4.3.10 (Application of Pesticides) discusses pesticide use. Section 4.3.11 (Invasive Species) requires permittees to employ BMPs to avoid the potential introduction and spread of invasive species on lands disturbed by Project construction. Section 4.3.12 (Noxious Weeds) requires permittees to take all reasonable precautions against the spread of noxious weeds during all phases of construction.²⁵³

6. Wildlife

236. Given that the proposed site is comprised primarily of agricultural lands, occurrence of wildlife within the Solar 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 temporary and minimal. Wildlife that resides within the construction zone will likely be temporarily displaced to adjacent habitats during the construction process. Applicant will implement several construction BMPs that are designed to minimize potential wildlife impacts, including wildlife training for construction personnel, posted speed limits, spill prevention measures, and general construction housekeeping (such as trash removal and maintaining a clean work area). Once restoration of the land is established after construction, in accordance with the VMP, the current non-native habitats that are used by habitat generalists will be replaced by a

²⁵⁰ Ex. EERA-8 at 161 (EA).

²⁵¹ Ex. EERA-8 at 161 (EA).

²⁵² Ex. EERA-8 at 161 (EA).

²⁵³ See PUC-204 (Sample Site Permit from July 8, 2021 Briefing Papers).

sustainable, diverse, perennial pollinator-friendly ground cover throughout the Solar Project that may be attractive to some species and less attractive to species that use the open farm and pasturelands. During operations, any potential impacts on wildlife are also expected to be minimal and insignificant. These impacts may be related to vehicle traffic and parking or mowing.²⁵⁴

237. In its May 5, 2022 comments, MDNR recommended that, due to entanglement issues with small animals, the site permit include a special condition requiring erosion control blankets to be limited to “bio-netting” or “natural netting” types and mulch products without synthetic (plastic) fiber additives.²⁵⁵ In its response to comments, Xcel Energy stated it has no objection to a special condition related to wildlife-friendly erosion control and proposed the following condition:

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.²⁵⁶

238. In its May 5, 2022 comments, the MDNR recommended a special permit condition related to coordination with the MDNR regarding perimeter fencing.²⁵⁷ In its response to comments, Xcel Energy stated it has no objection to a special condition related to continued coordination with the MDNR regarding perimeter fencing and proposed the following condition:²⁵⁸

Perimeter Fencing

The Permittee shall coordinate with the DNR to further refine the appropriate fence design. The results of the coordination shall be submitted to the Commission with the site plan pursuant to Section 8.3.

239. The record demonstrates that Applicant has taken steps to avoid and minimize impacts to wildlife. Further, the Sample Site Permit, as proposed to be modified by the Applicant, contains general conditions that adequately protect wildlife. Further, Section 8.12 (Wildlife Injuries and Fatalities) of the Sample Site Permit requires permittees to report any wildlife injuries and fatalities to the Commission on a quarterly basis.²⁵⁹

7. Air emissions

240. Air emissions during construction of the Solar Project would primarily consist of emissions from construction equipment and would include carbon dioxide,

²⁵⁴ Ex. EERA-8 at 166-67 (EA).

²⁵⁵ Comments (May 5, 2022) (eDocket No. 20225-185576-01).

²⁵⁶ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

²⁵⁷ Comments (May 5, 2022) (eDocket No. 20225-185576-01).

²⁵⁸ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

²⁵⁹ Ex. PUC-204 at 17 (Sample Site Permit from July 8, 2021 Briefing Papers).

nitrogen oxide (NOX), and particulate matter (PM). Dust generated from earth disturbing activities would also give rise to PM. Emissions would be dependent upon weather conditions, the amount of equipment at any specific location, and the period of operation required for construction at that location. Once operational, the Project will generate minimal greenhouse gas emissions. Emissions that do occur would result from vehicle usage to and from the solar array and substation for maintenance and operation of the substation and switchyard.²⁶⁰

241. Minor short-term air quality impacts from construction could be mitigated by equipping construction equipment with appropriate mufflers, using a water truck to reduce dust, and promptly reseeding areas of disturbed vegetation. Emissions of dust and PM can also be reduced by reducing the speed of truck traffic on unpaved roads and by covering open-bodied haul trucks.²⁶¹

242. In its May 5, 2022 comments, the MDNR recommended a special permit condition related to using dust control measures that do not contain chloride.²⁶² In its response to comments, Xcel Energy stated it has no objection to a special condition to implement non-chloride dust control methods and proposed the following condition:²⁶³

Dust Control

Permittee shall utilize non-chloride products for onsite dust control during construction.

F. Rare and unique natural resources

243. Based on the U.S. Fish and Wildlife Service's (USFWS's) Information for Planning and Consultation (IPaC) and Natural Heritage Information System (NHIS) data, and in coordination with the MDNR, there is one federally-listed species (the northern long-eared bat (NLEB) – also state-listed special concern); four state-listed threatened or endangered species (the loggerhead shrike, rock sandwort, seaside three-awn, and Blanding's turtle); and four state-listed special concern species (the black sandshell, creek heelsplitter, peregrine falcon, and red-shouldered hawk) identified within one mile of the Solar Project site.²⁶⁴

244. The Solar Project site is primarily agricultural lands with only a small area of forested habitat (<0.2 percent), which consists of shelterbelts between agricultural fields, near farmsteads, along roadways, and clumps of trees along the margins of small waterbodies. Higher quality habitat exists in areas adjacent to the Solar Project area and in riparian areas associated with the Mississippi River and various lakes.²⁶⁵

²⁶⁰ Ex. EERA-8 at 123 (EA).

²⁶¹ Ex. EERA-8 at 124 (EA).

²⁶² Comments (May 5, 2022) (eDocket No. 20225-185576-01).

²⁶³ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

²⁶⁴ Ex. EERA-8 at 176 (EA).

²⁶⁵ Ex. EERA-8 at 177 (EA).

245. During their active season (April 1 through October 31), NLEB may roost in trees in the vicinity surrounding the Solar Project. Habitat for state-listed species is limited in the Solar Project site to potential habitat for loggerhead shrike (state-listed endangered) and Blanding's turtle (state-listed threatened). Habitat for the loggerhead shrike is likely present within the Solar Project site, 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 Solar Project site lacks suitable habitat for black sandshell and creek heelsplitter (mussels that require rivers), peregrine falcon (known to nest in a nest box at the Sherco Generating Plant), red-shouldered hawk (large tracts of deciduous forest that occur along the Mississippi River), rock sandwort (bedrock outcrops), and seaside three-awn (sand savannas).²⁶⁶

246. Construction of the Solar Project will include tree clearing on the interior of the site (wind rows between agricultural fields). Based on NLEB NHIS records, it was determined that there are no documented NLEB maternity roost trees within 150 feet of the Solar Project site or documented hibernacula within 0.25 mile of the site. 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).²⁶⁷

247. 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 predominance of agricultural land use at the site and surrounding areas. Applicant will implement the BMPs for the loggerhead shrike recommended during pre-application discussions with the MDNR concerning the Project. Specifically, any tree or 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 Solar Project are anticipated to be negatable. Suitable habitat for the rock sandwort (bedrock outcrops) and seaside three-awn (sand savannas, sand prairies, dunes) is not present within the Solar 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 Solar Project site, Applicant will implement the BMPs outlined in the MDNR's recommendation.²⁶⁸

248. In its May 5, 2022 comments, the MDNR recommended a special permit condition related to loggerhead shrike.²⁶⁹ In its response to comments, Xcel Energy stated it has no objection to a special condition related to tree and shrub removal restrictions to protect loggerhead shrike, and proposed the following condition:

²⁶⁶ Ex. EERA-8 at 176 (EA).

²⁶⁷ Ex. EERA-8 at 178 (EA).

²⁶⁸ Ex. EERA-8 at 178 (EA).

²⁶⁹ Public Comment–MDNR (May 5, 2022) (eDocket No. 20225-185576-01).

Loggerhead Shrike

The Permittee shall avoid the removal of trees and shrubs for the facility between April 1st and July 31st, unless coordinated with the DNR.²⁷⁰

249. In its May 5, 2022 comments, the MDNR recommended a special permit condition for Blanding's turtle avoidance measures.²⁷¹ In its response to comments, Xcel Energy stated it has no objection to a special condition related to Blanding's turtle avoidance measures, and proposed the following condition:

Blanding's Turtle

The Permittee shall initiate the following measures during construction to avoid and 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 the DNR developed 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.²⁷²

250. There is no MDNR-mapped native prairie in the Solar Project site.²⁷³

251. Applicant's review of the MDNR's NHIS records identified four records of state species of special concern within one mile of the Solar Project site: black sandshell, creek heelsplitter, peregrine falcon, and red-shouldered hawk. Impacts to these special concern species is not anticipated because suitable aquatic habitat (the Mississippi River), required by the black sandshell and creek heelsplitter, is not present within the Solar Project site. In addition, suitable nesting habitat for the peregrine falcon and red shouldered hawk (cliffs, urban buildings and bridges, large tracts of deciduous forest) is also not present at the site. Development and implementation of the VMP, creating a sustainable, diverse, perennial pollinator-friendly ground cover throughout the solar, will provide beneficial habitat within the footprint of the Solar Project.²⁷⁴

²⁷⁰ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

²⁷¹ Public Comment–MDNR (May 5, 2022) (eDocket No. 20225-185576-01).

²⁷² Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

²⁷³ Ex. EERA-8 at 177 (EA).

²⁷⁴ Ex. EERA-8 at 179 (EA).

G. Future development and expansion

252. Based on Xcel Energy's clean energy transition, Xcel Energy will cease operations at 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 development in the Solar Project vicinity. As such, both NG Renewables and Xcel Energy are independently seeking additional development opportunities in this area. However, none of those opportunities are part of the Project or are 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 one of the two Project substations or construct an additional circuit on all or a portion of the West HVTL Project or the East HVTL Project. Any separate project will be completely independent from the Project proposed in this proceeding.²⁷⁵

III. SITE PERMIT CONDITIONS

253. The Sample 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 Solar Project.²⁷⁶

254. Many of the conditions contained in the Sample Site Permit were established as part of the site permit proceedings for other solar projects permitted by the Commission. Comments received by the Commission have been considered in the development of the Sample Site Permit for this Solar Project.²⁷⁷

ROUTE PERMITS

I. ROUTE PERMIT CRITERIA

255. For a discussion of applicable route permit criteria, see Site Permit Section I herein.

256. There is sufficient evidence on the record for the Administrative Law Judge to assess the routes on the record using the criteria and factors set out above.

²⁷⁵ Ex. XCEL-01 at 15 (Application).

²⁷⁶ See Ex. PUC-204 (Sample Site Permit from July 8, 2021 Briefing Papers) and Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

²⁷⁷ See Ex. PUC-204 (Sample Site Permit from July 8, 2021 Briefing Papers).

II. APPLICATION OF ROUTE PERMIT CRITERIA TO THE PROPOSED PROJECT

A. Human settlement

1. Displacement

257. Concerning the West Route, there will not be displacement of any residences or building because there are none within the West Route or its right-of-way. The West Route alignment is routed to avoid parcels with residences. As such, no mitigation is proposed.²⁷⁸

258. Concerning the East Route, no displacement of residences or business properties is expected because there are no residences or buildings within the East Route or its associated right-of-way. Therefore, no mitigation is proposed.²⁷⁹

2. Noise

259. Section 5.3.5 of the Sample Route Permit requires that “construction and maintenance activities shall be limited to daytime working hours to the extent practicable to ensure nighttime noise level standards will not be exceeded.” During operations, Xcel Energy is required to adhere to noise standards, and no additional mitigation was proposed in the EA because significant impacts are not anticipated.²⁸⁰

3. Aesthetics

260. The West Route will result in an alteration of the current landscape through construction of steel poles of 135 to 165 feet in height. Given that the West Route is collocated with existing transmission and along roads and field edges, and given the presence of the Sherco Generating Plant and numerous other transmission lines in the vicinity of the Project, the aesthetic impacts of the new structures and conductors is anticipated to be minimal, requiring no mitigation.²⁸¹

261. The East Route will result in an alteration of the current landscape through construction of steel poles of 135 to 165 feet in height. Given that the majority of the length of the East Route is within the Sherco Generating Plant the aesthetic impacts of the new structures and conductors is anticipated to be minimal, requiring no mitigation.²⁸²

²⁷⁸ Ex. XCEL-01 at 75 (Application).

²⁷⁹ Ex. XCEL-01 at 75 (Application).

²⁸⁰ Ex. PUC-205 at 5 (Sample Route Permit from July 8, 2021 Briefing Papers).

²⁸¹ Ex. EERA-8 at 91 (EA).

²⁸² Ex. EERA-8 at 91 (EA).

4. Cultural values

262. The EA concluded that no impacts to cultural values are anticipated due to the transmission lines.²⁸³

5. Recreational resources

263. Recreational activities in the vicinity of the Project include snowmobile trails and the Mississippi River. These features offer recreation opportunities that attract residents and tourists. There are no MDNR SNAs, state trails, WMAs, state parks, or migratory waterfowl feeding and resting areas within one mile of the Solar Project.²⁸⁴

264. The description of the area's recreational and tourism opportunities discussed for the Solar Project are relevant to all portions (the Solar Project and the HVTL Projects). Because the West Route is not anticipated to impact recreational or tourism opportunities, no mitigative measures are proposed.²⁸⁵

265. Likewise, because the East Route is not anticipated to impact recreational or tourism opportunities, no mitigative measures are proposed.²⁸⁶

6. Public services and infrastructure

266. The impacts and mitigation, relative to public services, for the Solar Project are also representative of the West Route due to their proximity. The West Route will interconnect into the existing Sherburne County Substation to deliver power from the Solar Project (West Block) to the grid. The West Route's anticipated alignment will cross a collocated 345 kV transmission line and 115 kV transmission line in the same location. The West Route has been designed to cross over these existing lines. No customer outages are anticipated during the connection to the Sherburne County Substation.²⁸⁷

267. The impacts and mitigation, relative to public services, for the Solar Project and West Route are also representative of the East Route due to their proximity. The East Route will interconnect into the existing Sherburne County Substation to deliver power from the Solar Project (East Block) to the grid. The East Route anticipated alignment will cross the existing 69 kV transmission line, which travels along 140th Avenue SE (Sherburne Avenue), and an existing 115 kV transmission line about 0.5 mile west of 140th Avenue SE. The East Route will cross over both of these existing transmission lines. No customer outages are anticipated during the connection to the Sherburne County Substation.²⁸⁸

²⁸³ Ex. EERA-8 at 96 (EA).

²⁸⁴ Ex. EERA-8 at 133-34 (EA).

²⁸⁵ Ex. EERA-8 at 134-35 (EA).

²⁸⁶ Ex. EERA-8 at 135 (EA).

²⁸⁷ Ex. EERA-8 at 104-105 (EA).

²⁸⁸ Ex. EERA-8 at 105-106 (EA).

7. Socioeconomics, property values, and environmental justice

268. If approved by the Commission, construction activities along the transmission lines are expected to have minimal, short-term impacts on the existing socioeconomic conditions in the area. There are no anticipated long-term, significant changes in the population, demographics employment, or income associated with the HVTL Project. The construction and operation of the west route and east route are not anticipated to create or remove jobs in the Project area or result in the permanent relocation of individuals to or from the area.²⁸⁹

269. Construction is expected to take approximately four months and will require approximately 40 workers. The influx of additional construction personnel in the area will have a small positive impact on the local economy from construction crew expenditures (e.g., lodging, fuel, food, etc.). Construction materials (e.g., lumber, concrete, aggregate, etc.) may be purchased from local vendors where feasible. No permanent staff will be necessary for the operation and maintenance of the proposed transmission line. In addition, there is no anticipated change to population trends, economic indicators, or employment associated with the HVTL Project. However, long-term beneficial impacts to the local tax base are likely to result from the incremental increase in revenues from utility property taxes.²⁹⁰

270. Impacts to property values are difficult to determine and vary based upon a number of factors, with negative impacts related to aesthetics, potential health impacts, and potential interference with land uses. Generally, the impact on property value decreases with distance from the line. The potential reduction in property values from negative impacts are estimated to fall in the range of one to ten percent. These impacts could be mitigated by minimizing aesthetic impacts, perceived EMF health risks, and agricultural impacts. Selecting routes and alignments that maximize the use of existing rights-of-way and that place the transmission line away from residences and out of agricultural fields could address these concerns, thus minimizing impacts to property values. Impacts can be mitigated through inclusion of specific conditions in individual easement agreements with landowners along the transmission line.²⁹¹

271. The EA concluded that the transmission lines are not anticipated to have any impacts on communities of environmental justice concern.²⁹²

8. Zoning and land use

272. Construction and operation of the transmission lines are not expected to have a significant impact on land use within Sherburne County or the City of Becker.

²⁸⁹ Ex. EERA-8 at 94-95 (EA).

²⁹⁰ Ex. EERA-8 at 94-95 (EA).

²⁹¹ Ex. EERA-8 at 76-77 (EA).

²⁹² Ex. EERA-8 at 83 (EA).

Existing land uses will experience minimal, short-term impacts during the period of construction.²⁹³

273. The anticipated alignment for the West Route crosses areas zoned as agricultural in Sherburne County and power generation in the City of Becker. In both zoning districts, the construction and operation of the West Route is not anticipated to affect the underlying land use, because the West Route is collocated with roads in the agricultural district (avoiding greenfield crossings of agricultural fields) and within the Sherco Generating Plant. This routing facilitates future planned commercial and industrial development within and adjacent to the Solar Generating Plant.²⁹⁴

274. The East Route anticipated alignment predominantly crosses areas zoned as power generation within the Sherco Generating Plant. The anticipated alignment has been designed to facilitate potential future commercial, industrial, and energy generation development within and adjacent to the Sherco Generating, and to avoid existing infrastructure and land uses associated with it.²⁹⁵

B. Public health and safety

275. The transmission lines will be designed to meet the local, state, and National Electrical Safety Code (NESC) safety standards. The proposed transmission lines will be equipped with protective devices to prevent damage from transmission line or pole falls or other potential accidents. The transmission lines will be equipped with protective devices (circuit breakers and relays located in substations where transmission lines terminate) to safeguard the public in the event of an accident, or if a structure or conductor falls to the ground. The protective equipment will de-energize the transmission line should such an event occur. Signage around the transmission lines will warn the public of the safety risks associated with the energized equipment. The construction of the transmission lines is not expected to have a negative impact on public health or safety. Construction crews will comply with Occupational Safety and Health Administration measures to ensure their own safety.²⁹⁶

276. There is no federal standard for transmission line electromagnetic fields. The Commission, however, has imposed a maximum electric field limit of 8.0 kV/m measured at one meter (3.28 feet) above the ground. The standard was designed to prevent serious hazards from shocks when touching large objects parked under alternating current transmission lines of 500 kV or greater.²⁹⁷

277. Xcel Energy anticipates that the proposed 345 kV lines will have an electrical field of 1.0 kV/m directly below the lines and will dissipate to 0.5 kV/m at

²⁹³ Ex. XCEL-101 at 106 (Application).

²⁹⁴ Ex. EERA-8 at 90 (EA).

²⁹⁵ Ex. EERA-8 at 91 (EA).

²⁹⁶ Ex. EERA-8 at 108-9 (EA).

²⁹⁷ Ex. EERA-8 at 115-16 (EA).

50 feet from the HVTL alignment. These field strengths are well below the Commission permit standard of 8.0 kV/m.²⁹⁸

278. No health impacts due to EMF are anticipated for the transmission lines; therefore, no mitigation is proposed. The transmission lines will be constructed to maintain proper safety clearances. Likewise, impacts to implantable medical devices are not expected.²⁹⁹

279. In summary, the record demonstrates that the construction and operation of the transmission lines are not expected to impact emergency services or have a negative impact on public health or safety.³⁰⁰ Further, the Sample Route Permit contains conditions related to the protection of public safety.³⁰¹

C. Land-based economies

1. Agriculture

280. Construction impacts to farmland are anticipated to be short term and minimal in nature. These impacts would be mitigated through proper implementation and use of BMPs, and the implementation of the approved AIMP and VMP. These measures are designed to reduce soil compaction, soil erosion, and the introduction of noxious weeds.³⁰²

281. Additional efforts to mitigate impacts on agricultural production include coordinating with farm operators regarding the timing of construction to avoid peak growing season by limiting construction activities to before spring planting or after harvest in the fall. If this is not possible, Applicant will compensate the farm operator for crop damage or loss, including any compaction that results from construction.³⁰³

2. Forestry

282. There are no forestry operations along the East or West Routes.³⁰⁴ Both routes minimize tree clearing and impacts to forestry resources are anticipated to be negligible.³⁰⁵

3. Tourism

283. Construction and operation of the Transmission Lines are not anticipated to have any impacts on tourism.³⁰⁶

²⁹⁸ Ex. XCEL-101 at 70 (Application).

²⁹⁹ Ex. EERA-8 at 192 (EA).

³⁰⁰ Ex. EERA-8 at 108-9 (EA).

³⁰¹ Ex. PUC-205 at 11 (Sample Route Permit from July 8, 2021 Briefing Papers).

³⁰² Ex. EERA-8 at 127 (EA).

³⁰³ Ex. EERA-8 at 128 (EA).

³⁰⁴ Ex. EERA-8 at 130 (EA).

³⁰⁵ Ex. EERA-8 at 178 (EA).

4. Mining

284. No impacts to existing aggregate mining operations are anticipated as a result of the East or West Route. No mitigative measures are proposed.³⁰⁷

D. Archaeological and historic resources

285. No previously recorded archaeological sites were identified within the West Route during the Phase Ia literature review. Two previously recorded archaeological sites lie within one mile of the West Route. No previously recorded historic architectural resources were identified within the West Route, but one previously recorded historic architectural resource was identified within one mile of West Route. No cultural resources were identified within the West Route pedestrian survey.³⁰⁸

286. No previously recorded archaeological sites were identified within the East Route during the Phase Ia literature review. Three previously recorded archaeological sites lie within one mile of the East Route. No previously recorded historic architectural resources were identified within the East Route. Six previously recorded historic architectural resources were identified within one mile of East Route.³⁰⁹

287. No archaeological or historic sites, or historic architectural resources were identified within the East Route or West Route during the Phase Ia literature review or Phase Ia survey. The construction and operation of the East Route and West Route will not impact historic properties listed in, eligible for, or potentially eligible for listing in the NRHP.³¹⁰

E. Natural environment

1. Surface waters

288. The West Route is located in the Upper Mississippi-Crow-Rum Watershed Basin. There are no lakes, rivers, watercourses, or water basins in the West Route. The nearest PWI waterbody is the Mississippi River, located approximately 0.15 mile to the south at its nearest point to the West Route. There are no surface waters within the West Route. The West Route will avoid impacts to surface waters and floodplains. The Permittee would be required to develop and submit a stormwater pollution prevention plan (SWPPP) that covers the West Route to MPCA for review and approval.³¹¹

289. The East Route is located in the Upper Mississippi-Crow-Rum Watershed Basin. There are no lakes, rivers, watercourses, or water basins in the East Route. The nearest PWI waterbodies are the Mississippi River, located approximately 0.3 mile to the south at its nearest point to the East Route, and the Elk River, located

³⁰⁶ Ex. EERA-8 at 134 (EA).

³⁰⁷ Ex. EERA-8 at 132 (EA).

³⁰⁸ Ex. EERA-8 at 136-38 (EA).

³⁰⁹ Ex. EERA-8 at 136-38 (EA).

³¹⁰ Ex. EERA-8 at 139 (EA).

³¹¹ Ex. EERA-8 at 145-46 (EA).

approximately 1.0 mile to the northeast at its nearest point to the east. There are no surface waters within the East Route. The East Route will avoid impacts to surface waters and floodplains. The Permittee would be required to develop and submit a SWPPP that covers the East Route to MPCA for review and approval.³¹²

290. Both Transmission Line routes avoid impacts to surface waters and floodplains.³¹³

2. Wetlands

291. No wetlands were identified within the West Route, and, therefore, no mitigation is proposed.³¹⁴

292. There are two NWI-mapped wetlands within the East Route. These two wetlands were not delineated. There are no PWI wetlands within the East Route. The East Route anticipated alignment avoids crossing any NWI-mapped wetlands and, therefore, no mitigation is proposed.³¹⁵

3. Groundwater

293. No potential impacts to groundwater resources are foreseen as there are no Environmental Protection Agency-designated sole source aquifers or wellhead protection areas within the East Route or West Route anticipated alignments. Based on review of the Minnesota County Well Index data, there are 15 verified wells within the proposed West Route. None of the unverified wells are located within the West Route anticipated alignment.³¹⁶

294. No potential impacts to groundwater resources are foreseen as there are no Environmental Protection Agency-designated sole source aquifers or wellhead protection areas within the East Route anticipated alignment. There are seven verified and unverified wells within the East Route. There is one unverified well located within the East Route anticipated alignment, the location of which will be verified prior to submittal of the Plan and Profile. If shallow depths to groundwater resources are identified during geotechnical investigations, specialty structures requiring wider, but shallower, excavation for foundations may be used.³¹⁷

³¹² Ex. EERA-8 at 146-47 (EA).

³¹³ Ex. XCEL-101 at 150 (Application).

³¹⁴ Ex. EERA-8 at 148 (EA).

³¹⁵ Ex. EERA-8 at 148 (EA).

³¹⁶ Ex. EERA-8 at 151 (EA).

³¹⁷ Ex. EERA-8 at 151 (EA).

4. Soils

295. None of the soils within the West Route are considered prime farmland. Additionally, none of the soils within the West Route are considered compaction-prone, water erodible or underlain by hydric soils.³¹⁸

296. None of the soils within the East Route are considered prime farmland. None of the soils within the West Route are considered farmland of statewide importance, compaction-prone, water erodible, or underlain by hydric soils.³¹⁹

297. Impacts to soils are anticipated to be temporary and minor and would be mitigated through the proper use and installation of BMPs, such as minimizing the number of vehicles and protection and maintenance of topsoil during right-of-way clearing and HVTL construction. The Permittee will be required to develop a SWPPP that complies with the MPCA rules and guidelines. Implementation of the protocols outlined in the SWPPP will minimize the potential for soil erosion during construction. Landowners will be compensated accordingly for any localized crop damage and soil compaction that may occur.³²⁰

5. Vegetation

298. The West Route includes predominately (70.0 percent) agricultural land of cultivated crop land and hay/pasture land. Developed land (28.0 percent) and herbaceous land (2.0 percent) are the next most abundant categories. Barren land comprises less than one half of one percent of the right-of-way acreage. There are no forested areas along the West Route. A review of aerial imagery conducted by Applicant identified shelterbelts between agricultural fields, near farmsteads, and along roadways within or adjacent to the West Route.³²¹

299. The West Route includes predominately (76.2 percent) agricultural land of cultivated crop land and hay/pasture land and developed land (21.9 percent). Developed lands are roads that are either crossed by, or co-located with, the East Route anticipated alignment or associated with the Sherco Generating Plant. Data overestimates the amount of cultivated cropland within the East Route because areas within the Sherco Generating Plant are classified as cultivated crops when aerial photography confirms they should be classified as developed land.³²²

300. Construction of the West Route will result in short-term adverse impacts on existing vegetation, including localized physical disturbance and soil compaction. Construction activities, such as site preparation and installation of structures, are anticipated to impact approximately 0.1 to 0.5 acres of vegetation per structure. Construction activities involving establishment and use of access roads, staging, and

³¹⁸ Ex. EERA-8 at 158 (EA).

³¹⁹ Ex. EERA-8 at 159 (EA).

³²⁰ Ex. EERA-8 at 144 (EA).

³²¹ Ex. EERA-8 at 161 (EA).

³²² Ex. EERA-8 at 162-163 (EA).

stringing areas would also have short-term impacts on vegetation by concentrating surface disturbance and equipment use. Construction will result in long-term impacts on vegetation by permanently removing vegetation at each structure and within portions of the right-of-way that are currently dominated by forest or other woody vegetation. Permanent conversion of forested areas and shrub lands to low-stature vegetation will result from clearing woody vegetation throughout the entire right-of-way where present. Impacts to woody-dominated vegetation can be minimized through prudent alignment routing to avoid areas where this vegetation type occurs. Construction of the West Route could lead to the introduction or spread of invasive species and noxious weeds. This can occur through ground disturbance that leaves soils exposed for extended periods, introduces topsoil contaminated with weed seeds, imports weed seed from a contaminated site to an uncontaminated site, and converts landscape from forested to open settings.³²³

301. Impacts to flora can also be mitigated by a number of strategies, as described in more detail in the Application and EA.³²⁴

6. Wildlife

302. The wildlife species that inhabit the East Route and West Route are typical of those found in agricultural areas and would be like those described above for the Solar Project. Potential impacts to wildlife species, and the BMPs to avoid or minimize these effects, include those described above for the Solar Project, but also include impacts due to electrocution and collision with transmission line conductors. Applicant will coordinate with USFWS and MDNR as needed to identify avian movement pathways and migration flyways that may be crossed by the East Route and West Route anticipated alignments and to discuss areas along the transmission lines that may need to be marked with avian flight diverters to minimize impacts to birds.³²⁵

303. Section 5.3.15 of the Sample Route Permit requires that the Company coordinate with the MDNR to identify areas where bird diverters will be incorporated into the HVTL design.

304. In its May 5, 2022 comments, MDNR recommended that, due to entanglement issues with small animals, the site permit should include a special condition requiring erosion control blankets to be limited to “bio-netting” or “natural netting” types and the use of mulch products without synthetic (plastic) fiber additives.³²⁶ In its response to comments, Xcel Energy stated it has no objection to a special condition related to wildlife-friendly erosion control and proposed the following condition for the West and East Route permits:

³²³ Ex. EERA-8 at 161 (EA).

³²⁴ Exs. XCEL-101 at 153-56 (Application), EERA-8 at 162 (EA).

³²⁵ Ex. EERA-8 at 169 (EA).

³²⁶ Comments (May 5, 2022) (eDocket No. 20225-185576-01).

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.³²⁷

7. Air emissions

305. Potential air quality impacts associated with the HVTL Project come from two primary sources: short-term emissions from construction activities, and ozone and NOX emissions from operating the facility.³²⁸

306. Minor short-term air quality impacts from construction should be mitigated by equipping construction equipment with appropriate mufflers, using a water truck to reduce dust, and promptly reseeding areas of disturbed vegetation. Emissions of dust and other particulate matter can also be reduced by reducing the speed of truck traffic on unpaved roads and by covering open-bodied haul trucks.³²⁹

F. Rare and unique natural resources

307. Minnesota law requires consideration of a HVTL’s potential effects on rare and unique natural resources.³³⁰

308. Based on IPaC and NHIS data and coordination with MDNR, within one mile of the West Route, there are identified: one federally listed species (NLEB; also state-listed special concern); four state-listed threatened or endangered species (loggerhead shrike, rock sandwort, seaside three-awn, and Blanding’s turtle); and four state-listed special concern species (black sandshell, creek heelsplitter, peregrine falcon, and gopher snake). The potential impacts to wildlife species (NLEB, loggerhead shrike, and Blanding’s turtle) and the BMPs to avoid or minimize these effects along the West Route, are described above for the Solar Project.³³¹

309. Based on IPaC and NHIS data and coordination with MDNR, there is one federally listed species (northern long-eared bat; also state-listed special concern), four state-listed threatened or endangered species (loggerhead shrike, rock sandwort, seaside three-awn, and Blanding’s turtle), and three state-listed special concern species (black sandshell, creek heelsplitter, and peregrine falcon) identified within one mile of the East Route. Potential impacts to wildlife species (NLEB, loggerhead shrike, and Blanding’s turtle), as well as the BMPs to avoid or minimize these effects along the East Route, are described above for the Solar Project.³³²

³²⁷ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

³²⁸ Ex. EERA-8 at 124 (EA).

³²⁹ Ex. EERA-8 at 124 (EA).

³³⁰ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100, subp. F.

³³¹ Ex. EERA-8 at 179-80 (EA).

³³² Ex. EERA-8 at 180-81 (EA).

310. In its May 5, 2022 comments, MDNR recommended a special permit condition related to loggerhead shrike.³³³ Xcel Energy has no objection to a special condition related to tree and shrub removal restrictions to protect loggerhead shrike and proposed the following condition for the West HVTL and East HVTL route permits:

Loggerhead Shrike

The Permittee shall avoid the removal of trees and shrubs for the facility between April 1st and July 31st, unless coordinated with the DNR.³³⁴

311. In its May 5, 2022 comments, MDNR recommended a special permit condition for Blanding's turtle avoidance measures.³³⁵ Xcel Energy does not object to a special condition related to Blanding's turtle avoidance measures and proposed the following condition for the West HVTL and East HVTL route permits:

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 the DNR developed 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.³³⁶

G. Application of various design considerations

312. The Transmission Lines will be designed to be double circuit capable, and the transmission outlet provided by the Transmission Lines allows for potential future expansion of generation in the area without requiring additional new transmission lines across the Sherco Generating Plant. This allowance appropriately capitalizes on the construction of the Transmission Lines and minimizes environmental impacts both now and in the future. The future addition of the second circuit to the route, or other transmission upgrades would be subject to future filings with the Commission.³³⁷

³³³ Comments (May 5, 2022) (eDocket No. 20225-185576-01).

³³⁴ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

³³⁵ Comments (May 5, 2022) (eDocket No. 20225-185576-01).

³³⁶ Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

³³⁷ Ex. EERA-8 at 49, 52 (EA).

H. Use and paralleling of existing rights-of-way

313. Sharing right-of-way with existing infrastructure or paralleling existing rights-of-way minimizes fragmentation of the landscape and can minimize human and environmental impacts.³³⁸

314. Because no alternatives to the West and East HVTL routes of the Project were scoped, factors H and J from Minnesota Rules, part 7850.4100 are not relevant to this Project. Factor H relates to the use or paralleling of existing rights-of-way (ROW). Factor H includes items that do not have a ROW, such as survey lines, natural division lines, and agricultural field boundaries. Factor J relates to the use of existing transportation, pipeline, and electrical transmission ROW.³³⁹

I. Electrical system reliability

315. The Transmission Lines will be designed and constructed in accordance with applicable reliability standards.³⁴⁰

J. Costs of construction, operation, and maintenance

316. Applicant estimates the total cost for the West HVTL Project to be approximately \$6.9 million (based on 2021 dollars). Applicant estimates the total cost for the East HVTL to be approximately \$3.7 million (based on 2021 dollars). This estimate is an engineering estimate and expected to reflect actual costs within 20 percent. Final costs are dependent on a variety of factors, including the approved route, timing of construction, cost of materials, and labor.³⁴¹

317. The anticipated annual operating and maintenance costs for the Transmission Lines are approximately \$500 per mile.³⁴²

K. Adverse human and natural environmental factors that cannot be avoided

318. Most unavoidable adverse impacts would occur during the construction phase of the proposed Project and would be temporary.³⁴³

319. Unavoidable impacts that would last the life of the Project include changes to existing aesthetics of landscape (from agrarian to solar facility), which will be visible from local roadways and parcels, and changes in land use and vegetation within the Solar Project.³⁴⁴

³³⁸ See generally Ex. EERA-8 (EA).

³³⁹ Ex. EERA-8 at 190-91 (EA).

³⁴⁰ Ex. EERA-8 at 16, 195 (EA).

³⁴¹ Ex. EERA-8 at 48, 51 (EA).

³⁴² Ex. EERA-8 at 49, 51 (EA).

³⁴³ Ex. EERA-8 at 185 (EA).

³⁴⁴ Ex. EERA-8 at 186 (EA).

III. ROUTE PERMITS CONDITIONS

320. The Sample 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 Sample Route Permit includes proposed permit conditions that apply to right-of-way preparation, construction, clean-up, restoration, operation, maintenance, abandonment, decommission, and other aspects of the Transmission Line.³⁴⁵

321. Many of the conditions contained in the Sample Route Permit were established as part of the route permit proceedings of other solar projects permitted by the Commission. Comments received by the Commission have been considered in development of the Sample Route Permit for this Project.³⁴⁶

NOTICE

322. Minnesota statutes and rules require Applicant to provide certain notice to the public and local governments before and during the Application process.³⁴⁷

323. Applicant provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.³⁴⁸

324. Minnesota statutes and rules also require the Commission and EERA to provide certain notice to the public throughout the Site and Route Permit processes.³⁴⁹

325. The Commission and EERA provided the notice in satisfaction of Minnesota statutes and rules.³⁵⁰

³⁴⁵ See Ex. PUC-205 (Sample Route Permit from July 8, 2021 Briefing Papers) and Xcel Energy Response to Comments (May 16, 2022) (eDocket No. 20225-185843-01).

³⁴⁶ Ex. PUC-205 (Sample Route Permit from July 8, 2021 Briefing Papers).

³⁴⁷ Minn. Stat. § 216E.03, subds. 3a, 4; Minn. R. 7850.2100, subps. 2, 4.

³⁴⁸ See Exs. XCEL-100 (Sherco Notice of Application Under Alternative Permitting Process), XCEL-116 (Sherco Notice of Filing SP And Two RP Applications), PUC-200 (Notice of Comment Period), PUC-202 (Notice of Public Information and EA Scoping Meeting), PUC-203 (Newspaper Affidavit of Publication - Notice of Public Information and EA Scoping Meeting), PUC-207 (Notice of Public Hearings and Availability of EA), PUC-208 (EQB Monitor - Notice of Public Hearings and Availability of EA), PUC-209 (Newspaper Affidavit of Publication - Notice of Public Hearings and Availability of EA).

³⁴⁹ Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, subp. 2; Minn. R. 7850.3700, subps. 2, 3, and 6.

³⁵⁰ See Exs. EERA-2 (Notice of Public Information and Scoping Meeting And Affidavit of Service Affidavit of Publication), EERA-9 (Notice: Availability of EA), EERA-10 (Notice: Availability of EA, Notice: Public Hearing published in the EQB Monitor), PUC-200 (Notice of Comment Period), PUC-202 (Notice of Public Information and EA Scoping Meeting), PUC-203 (Newspaper Affidavit of Publication - Notice of Public Information and EA Scoping Meeting), PUC-207 (Notice of Public Hearings and Availability of EA), PUC-208 (EQB Monitor - Notice of Public Hearings and Availability of EA), PUC-209 (Newspaper Affidavit of Publication - Notice of Public Hearings and Availability of EA).

ENVIRONMENTAL REVIEW

326. The EA process is the alternative environmental review approved by the Minnesota Environmental Quality Board for LEPGPs and HVTLS. 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.³⁵¹

327. 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.

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

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

CONCLUSIONS OF LAW

I. CONCLUSIONS APPLICABLE TO ALL APPLICATIONS

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

2. The Commission and the Administrative Law Judge have jurisdiction over the site permit and two route permits applied for by Xcel Energy for the proposed Project pursuant to Minn. Stat. § 216E.03.

3. The Commission determined that the Application was substantially completed and accepted the Application on August 11, 2021.³⁵²

4. Applicant, the Commission, and 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 (2020), Minn. Stat. ch. 216E, Minn Stat. ch. 216F (2020), and Minn. R. ch. 7829, 7849, 7850 and 7854 (2021).

5. EERA has conducted an appropriate environmental analysis of the Project, and the EA satisfies Minn. R. 7850.3700, 7849.1800, subp. 2, 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. 7849.1900 and 7850.3700.

³⁵¹ Minn. R. 4410.4400, subp. 6; Minn. R. 7850.3900, subp. 2.

³⁵² Ex. PUC-201 (Order Accepting Application as Complete and Authorizing Use of the Alternative Review Process).

6. 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.

7. 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.

8. Xcel Energy has substantially complied with the procedural requirements of Minn. Stat. ch. 216E and Minn. R. ch. 7850.

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

10. Public hearings were held on April 20 and 21, 2022. A public hearing was conducted near the Proposed Site and Routes. 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 and Route Permits were met.

II. SITE PERMIT (SOLAR PROJECT)

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

12. The Sample Site Permit as modified by Xcel Energy contains a number of important mitigation measures and other reasonable conditions.

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

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

15. The Project with the general permit conditions contained in the Sample Site Permit as modified by Xcel Energy, satisfies the site permit criteria for an LEPGP in Minn. Stat. § 216E.03 and meets all other applicable legal requirements.

16. The Project, with the permit conditions identified herein, does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act or the Minnesota Environmental Policy Act.

III. TWO ROUTE PERMITS (EAST & WEST HVTL PROJECTS)

17. The evidence in the record demonstrates that the East Route and West Route satisfy the Route Permit factors set forth in Minn. Stat. § 216E.04, subd. 8 (referencing Minn. Stat. § 216E.03, subd. 7) and Minn. R. 7850.4100.

18. The evidence in the record demonstrates that the Sample Route Permit as modified by Xcel Energy is appropriate for the West Route and East Route.

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

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

RECOMMENDATION

Based upon these findings and conclusions, the Administrative Law Judge recommends that the Commission issue a site permit and two route permits to Applicant to construct and operate the up to 460 MW Solar Project in the area identified as Site Alternative 1A, as well as the two associated 345 kV Transmission Lines in Sherburne County, Minnesota. The site permit and two route permits should also include the permit conditions identified herein.

Dated: June 21, 2022


KIMBERLY MIDDENDORF
Administrative Law Judge

Reported: Transcript prepared

NOTICE

Notice is hereby given that exceptions to this Report, if any, by any party adversely affected must be filed under the time frames established in the Commission's rules of practice and procedure, Minn. R. 7829.1275, .2700 (2021), unless otherwise directed by the Commission. Exceptions should be specific and stated and numbered separately. Oral argument before a majority of the Commission will be permitted pursuant to Minn. R. 7829.2700, subp. 3. The Commission will make the final determination of the matter after the expiration of the period for filing exceptions, or after oral argument, if an oral argument is held.

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

June 21, 2022

See Attached Service List

Re: *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*

In the Matter of the Application of Xcel Energy for a Site Permit for the up to 460 MW Sherco Solar Project in Sherburne County

In the Matter of the Application of Xcel Energy for a Route Permit for the East 345 kV Transmission Line for the Sherco Solar Project in Sherburne County

In the Matter of the Application of Xcel Energy for a Route Permit for the West 345 kV Transmission Line for the Sherco Solar Project in Sherburne County

OAH 21-2500-37959
MPUC E-002/GS-21-191,
MPUC E-002/TL-21-190,
MPUC E-002/TL-21-189

To All Persons on the Attached Service List:

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

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

Sincerely,


MICHELLE SEVERSON
Legal Assistant

Enclosure

cc: Docket Coordinator

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

CERTIFICATE OF SERVICE

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	OAH Docket No.: 21-2500-37959 MPUC E-002/GS-21-191, MPUC E-002/TL-21-190, MPUC E-002/TL-21-189
In the Matter of the Application of Xcel Energy for a Site Permit for the up to 460 MW Sherco Solar Project in Sherburne County	
In the Matter of the Application of Xcel Energy for a Route Permit for the East 345 kV Transmission Line for the Sherco Solar Project in Sherburne County	
In the Matter of the Application of Xcel Energy for a Route Permit for the West 345 kV Transmission Line for the Sherco Solar Project in Sherburne County	

Michelle Severson certifies that on June 21, 2022, she served the true and correct **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATION** by eService, and U.S. Mail, (in the manner indicated below) to the following individuals:

First Name	Last Name	Email	Company Name
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