



May 22, 2024

Via eDockets

Consumer Affairs Office  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101

RE: EERA Hearing Comments  
Sherco Solar 3 Project  
**PUC Docket No.** E-002/GS-23-217  
**OAH Docket No.** 24-2500-38813

Dear Consumer Affairs Office:

Minnesota Department of Commerce, Energy Environmental Review and Analysis (EERA) offers the following comments on the Sherco Solar 3 Project (Project) proposed by Xcel Energy.

In these comments EERA

- recommends modifications to the draft decommissioning plan,
- summarizes changes between the sample site permit filed by the Minnesota Public Utilities Commission (Commission) and the proposed draft site permit (PDSP) included as Appendix C of the Environmental Assessment (EA) prepared for the Project,
- addresses comments on the potential for glare from the Project, and
- addresses project changes.

## Decommissioning Plan

Site permits for wind and solar facilities issued by the Commission require permittees to file decommissioning plans prior to construction. The intent of the decommissioning plan is to ensure that the site is restored at the end of the energy facility's useful life, and that the restoration costs are borne by the permittee.

EERA staff has reviewed the draft decommissioning plan filed by Xcel Energy as Appendix H in its *Site Permit Application*.<sup>1</sup> EERA staff's review is guided by the recommendations of the Solar and Wind Decommissioning Working Group and additional comments and recommendations found in the Commission's docket on the decommissioning of solar and wind facilities (PUC Docket 17-123). While the draft decommissioning plan is consistent with EERA expectations in many areas, EERA staff

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<sup>1</sup> Xcel Energy, *Site Permit Application, Appendix H, Decommissioning Plan*, August 8, 2023, eDocket No. [20238-198095-07](#)

recommends several revisions to the plan prior to its submittal as a pre-construction filing required by Section 9.1 of the PDSP.

- **Plan Cover:** The revised decommissioning plan should include the date of the plan and the Commission’s docket numbers for the project on the cover of the plan.
- **Independent Preparer:** Meets EERA expectations. The plan and cost estimate have been prepared by Westwood Professional Services.
- **Decommissioning Objective:** Partially meets EERA expectations. Section 2 of the decommissioning plan, “Proposed Future Land Use,” implies that the site will be restored to farmland, but EERA recommends a clear statement of the objective of decommissioning the project be included. The restoration objective may change over time and can be updated over the life of the project. Section 9.2 of the PDSP anticipates the site will be restored to pre-project conditions, but also anticipates that a landowner may wish to retain restored prairie vegetation or other land uses. It is possible that, in the future, restoration to a different use (e.g., commercial, industrial, or residential) may be sought as urban areas expand towards solar facilities on what had been exurban areas.

EERA staff notes that Commission-issued site permits for solar facilities do require decommissioning plans and recommends removal of the statement about the lack of state-level requirements in Section 1 of the decommissioning plan. EERA staff recommends that the plan either remove reference to or clarify the relationship between the plan and the decommissioning requirements of Sherburne County. EERA staff notes that the county requires a decommissioning plan as part of the interim use permit required for small solar projects in Sherburne County, but could not locate guidance on what the plan should contain beyond the requirement for a decommissioning plan in [Section 16.2, subd. 5.21.C.6](#) of the Sherburne County Zoning Ordinance.

- **Scheduled Updates:** Does not meet EERA expectations. EERA recommends adding a section on the schedule for updates at five-year intervals under a separate header. At this stage, EERA staff recommends a “permit version” of the decommissioning plan filed with pre-construction documents, and then scheduled updates every five years thereafter. The plan should also be updated any time there is a change in ownership.
- **Project Description:** Does not meet EERA expectations. EERA recommends moving the brief project description provided in Section 1 to a separate heading and revising the project description be updated to include:
  - **Project Description:** A brief narrative describing the project and associated facilities. The description should include total size in megawatts (MW), project size in acres, miles of access roads, miles of underground cable, number of stormwater ponds (if any), length of fencing, etc. and an anticipated date for decommissioning. The interconnection to the Sherco Solar West substation and the shared O&M facility shared with Sherco Solar 1

and 2 should be briefly addressed, with reference to decommissioning of these facilities under the Sherco 1 & 2 plan.

- Location of the facility: A brief narrative describing the location of the facility including the county, nearby cities, township, range, and sections. The narrative should also include a brief description of surrounding land uses (e.g., cultivated agriculture, presence of Sherco Solar 1 and 2).
- Anticipated date of commercial operation (will be updated once this is certain).
- A site map showing the location of project components (e.g., arrays, roads, cabling, , inverter locations, any stormwater retention areas, etc.).
- The date and eDocket location of the site permit when issued. Future updates should also reference past decommissioning plans and provide a link to those plans.
- Clarify the role of Xcel Energy. The introduction describes Xcel Energy as the applicant, while later in the text there are references to an undefined “Owner.” For purposes of the decommissioning plan, the decommissioning responsibility is with the owner.
- The anticipated life of the facility. The introduction indicates the useful life of the panels to be 35 years, but not the project as a whole. The DSP has a term of 30 years, consistent with other Commission permits.
- A short statement on land ownership. Will the land on which the facility is sited be owned by Xcel Energy or an affiliate, or will it be leased from independent landowners, or some combination? The discussion in Section 3 anticipates contacting landowners to discern their preferences for the disposition of infrastructure, but the plan is unclear whether the land is leased or owned by Xcel Energy.
- **Use of Generation Output.** Does not meet EERA expectations. Clarify whether the generation from the Sherco 3 Solar Project will be used as part of Xcel Energy’s generation portfolio or sold. If the output is to be sold, clarify the offtaker and the expiration date of any PPA.
- **Permits and Notifications:** Partially meets EERA expectation. EERA recommends adding a separate section on permits and notifications. The plan should include a list of anticipated permits, expanding on the information included in Section 4.4 of the plan. The plan should also discuss how landowners and local governments will be notified.
- **Tasks and Timing:** Sections 3 “Decommissioning Activities” and 4 “Best management Practices” generally meets EERA expectations. EERA recommends additional information on assumptions for waste disposal and timeframe schedule prior to filing as a pre-construction filing:
  - Add a short section in the text that generally discusses assumptions for disposal and identifies landfill and recycling facilities in place at this time. Some of this information

(reference to EMR Northern Metal Recycling in Becker) is included in the notes to Attachment A, but including this information in the text makes the assumptions clear. Section 2.5 of 2021 decommissioning plan for Sherco Solar 1 & 2<sup>2</sup> discusses waste disposal and identifies landfills and salvage yards that are used as a basis for the plan and cost estimate.<sup>3</sup> EERA anticipates these facilities may change as the project ages, but calling this information out in its own subsection makes it easier identify whether updates are needed.

- Provide some additional detail on the timeframe/schedule for decommissioning. A Gantt chart is not necessary at this time, but something more detailed than “one year” (e.g., section 2.3 of the 2021 decommissioning plan for Sherco Solar).
- **Cost Estimate:** The summary information in Section 6 and detailed cost estimate in Attachment A meets EERA expectations. EERA notes that the estimated salvage value of the PV modules represents approximately 67 percent of the total salvage value of the project. EERA notes that the resale market for PV panels is not well established and that using current resale values 30 years into the future is speculative at this point. EERA anticipates that the resale market will become more stable over time and will continue to monitor for all solar projects.
- **Financial Assurance:** The statement of intention to use net salvage rate meets EERA expectations, but EERA recommends adding a separate heading to make the information easier to locate.

## Site Permit Modifications

The Commission issued a sample site permit on November 27, 2023.<sup>4</sup> EERA included a PDSP as Appendix C of the Environmental Assessment (EA).<sup>5</sup> EERA’s PDSP indicated changes from the Commission-issued sample permit by underline and strikeout. In these comments, EERA summarizes the changes between the sample permit and EERA’s PDSP.

### *Updated Project Description (Cover, Sections 1, 2, and 3)*

EERA’s proposed DSP updates the sample permit to include project-specific information in the cover and in sections 1, 2, and 3. EERA staff notes that the addition of the project description and location in Section 2 is a change from the sample permit, although it was not identified as such in the DSP.

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<sup>2</sup> Xcel Energy, *Decommissioning Report for Sherco Solar Project*, included as Appendix H of the *Site Permit Application*, April 20, 2021, eDocket No. [20214-173142-01](#)

<sup>3</sup> Xcel Energy, *Decommissioning Report for Sherco Solar Project*, included as Appendix H of the *Site Permit Application*, April 20, 2021, eDocket No. [20214-173142-01](#)

<sup>4</sup> Commission, Sample Site Permit, November 27, 2023, eDocket No. [202311-200753-01](#)

<sup>5</sup> DOC EERA, *Environmental Assessment: Sherco Solar 3 Project. Appendix C, Proposed Draft Site Permit*. April 22, 2024, eDocket No. [20244-205757-04](#)

*Visual Screening Plan (Special Condition 5.1)*

EERA recommends a special condition requiring Xcel Energy to prepare a site-specific visual screening plan to minimize visual impacts to adjacent residences and other land uses, including cemeteries.

*Snowmobile Trail (Special Condition 5.2)*

EERA recommends a special condition requiring Xcel Energy to coordinate with the local snowmobile trail association to reroute Snowmobile Trail 209.

*Unanticipated Discoveries Plan (Special Condition 5.3)*

EERA recommends a special condition requiring Xcel Energy to prepare an Unanticipated Discoveries Plan outlining steps to be taken if previously unrecorded cultural resources or human remains are encountered during construction.

*Northern Long-Eared Bat (Special Condition 5.4)*

EERA recommends a special condition requiring the Xcel Energy to comply with the U.S. Fish and Wildlife Service (USFWS) guidance and requirements to minimize impacts to the northern long-eared bat (NLEB,) a federally-listed species. While the site is primarily agricultural lands with little forested habitat, the nearby landscape includes riparian corridors, indicating a potential for NLEB occurrence within the project area. This condition is not a standard permit condition but, depending upon a project's location, has been included in many permits issued for solar, wind, and transmission lines.

*Loggerhead Shrike (Special Condition, Section 6.9)*

EERA recommends a special condition incorporating DNR's recommended mitigation measures to minimize disruption to Loggerhead Shrike habitat during the breeding season. The Loggerhead shrike is a state-listed endangered species that has been documented in the vicinity of the site.

*Wildlife Friendly Erosion Control*

Section 4.7 of the EA (at pages 80-81) discusses the potential for wildlife entanglement from plastic netting and other plastic materials and indicates that Section 5.2 of the PDSP is a special condition requiring use of wildlife-friendly erosion control.

It has come to EERA's attention that such a condition was not actually included in the PDSP included as Appendix C of the EA. The omission was inadvertent, and EERA apologizes for any confusion that may have resulted. Consistent with the text of the EA and the record, EERA recommends that the site permit include a special condition requiring the use of wildlife friendly erosion control, as has been included in many recent permits.

*6.10 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.*

## Solar Glare

EERA would like to address solar glare from the photovoltaic (PV) panels in these comments. Although the topic of solar glare was brought up in scoping comments, it was not specifically addressed in the EA.

PV panels are designed to absorb light from the sun to convert the light to electricity. Compared to clear glass, which typically reflects approximately eight percent of the sunlight, PV panels typically reflect approximately three percent of the sunlight when the panels are directly facing the sun. Although PV panels absorb most of the solar energy, in certain situations the panels glass surface can reflect sunlight and produce glint (a momentary flash of bright light) and glare (a continuous source of bright light).

The Federal Aviation Administration (FAA) has expressed concern with the potential impact of glint and glare on personnel working in airport traffic control towers and in 2013, issued interim guidance requiring federally-obligated airports to conduct analysis of potential glint and glare effects on pilots and airport traffic control personnel. In its analysis FAA concluded that “in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features.” The FAA has focused its policy on glint and glare impacts to air traffic personnel from solar energy systems installed at airports.<sup>6</sup> Because the proposed project is not located on an airport, it does not require a glare analysis for potential impacts to pilots and air traffic personnel.

The potential impact of glint and glare from PV panels was addressed in the Byron Solar Project (Commission Docket GS-20-763) but has not come up in all proposed solar projects. In the Byron Solar proceeding the applicant commissioned a glint and glare analysis. The applicant modeled glare at residences and select road locations within approximately 500 feet of the solar arrays and flight paths and air traffic control towers within 10 miles of the arrays. The modeling showed potential glare impacts at all 17 of the residences modeled and seven of the 11 road locations modeled. The modeling assumes a worst-case scenario where the sun is shining 365 days per year and there is no screening (e.g., trees, hills, or buildings) around the receptors. The modeling did not identify glare impacts to flight paths or air traffic control.<sup>7</sup>

EERA staff is unclear whether Xcel Energy has commissioned a glare analysis for the Sherco Solar 3 project.

As noted above, EERA staff recommends that Xcel Energy prepare a site-specific visual screening plan to minimize visual impacts to adjacent residences and other land uses. In addition to minimizing general

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<sup>6</sup> Federal Aviation Administration Policy: Review of Solar Energy System Projects on Federally-Obligated Airports, Federal Register, May 11, 2021. <https://www.federalregister.gov/documents/2021/05/11/2021-09862/federal-aviation-administration-policy-review-of-solar-energy-system-projects-on-federally-obligated>

<sup>7</sup> DOC – EERA, Combined Environmental Assessment and Environmental Report: Byron Solar Project, September 22, 2022, eDocket No: [20229-189238-01](#), at pp. 49 and 61. See also, Appendix F, Glare Study, eDocket ID: [20229-189238-19](#)

aesthetic impacts, vegetation screening can also minimize potential glare from the solar facility at nearby residences.

## Project Changes

Since submitting the application, Xcel Energy has determined that the siting constraints posed by the existing transmission line that crosses Unit 4 makes placing PV panels on that unit unfeasible and no longer proposes to develop that unit. Xcel Energy also indicates that it has reached landowner agreements for a new easement corridor for underground electrical collection and communication cables between Units 3 and 7.<sup>8</sup> EERA recommends that the permit include updated site maps and is able to assist the Commission in preparing those maps. EERA also recommends that the description of the site be updated to reflect the removal of the 51.6 acres in Unit 4. Although Xcel Energy has not proposed any changes to Unit 7, which spans both sides of Minnesota Highway 24, EERA notes that Xcel Energy has not proposed placing infrastructure on the west side of the highway, and recommends the Commission consider removing that portion of the unit from the final site for clarity.

EERA appreciates the opportunity to comment on the proposed project.

Sincerely,

A handwritten signature in black ink that reads "Suzanne Steinhauer". The signature is written in a cursive, flowing style.

Suzanne Lamb Steinhauer  
EERA Environmental Review Manager

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<sup>8</sup> Xcel Energy, Testimony of Ellen Heine, April 30, 2024, eDocket no: [20244-206212-04](#), at pp. 3-4 and Attachment B.