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MPUC E017/GS-24-309

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

In the Matter of the Application of Otter
Tail Power Company for a Site Permit for
the up to 66MW Solway Solar Project in
Beltrami County, Minnesota

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

TABLE OF CONTENTS

STATEMENT OF ISSUES	1
SUMMARY OF RECOM MENDATIONS	1
FINDINGS OF FACT.....	2
I. APPLICANT	2
II. PROCEDURAL HISTORY	2
III. DESCRIPTION OF THE PROJECT.....	5
IV. SITE LOCATION AND CHARACTERISTICS	5
V. PROJECT SCHEDULE.....	6
VI. SUMMARY OF PUBLIC COMMENTS.....	6
VII. PERMITTEE	8
VIII. CERTIFICATE OF NEED	9
IX. SITE PERMIT CRITERIA.....	9
X. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT	10
A. Human Settlement.	10
B. Public Health and Safety.....	18
C. Land-Based Economies.....	19
D. Archaeological and Historic Resources.....	21
E. Natural Environment.	22
F. Rare and Unique Natural Resources.	28
G. Application of Various Design Considerations.....	29
H. Use of Existing Large Electric Power Generations.....	29
I. Use of Existing Rights-of-Way.....	30
J. Electrical System Reliability.	30
K. Costs of Constructing, Operating, and Maintaining the Facility.....	30
L. Adverse Human and Natural Environmental Effects that Cannot be Avoided.....	31
M. Irreversible and Irretrievable Commitments of Resources.	32
XI. SITE PERMIT CONDITIONS.....	32

XII. NOTICE	34
XIII. COMPLETENESS OF EA.....	35
CONCLUSIONS OF LAW.....	35
RECOMMENDATIONS.....	36

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This matter was assigned to Administrative Law Judge Suzanne Todnem to conduct a public hearing on the Site Permit Application (MPUC Docket No. E017/GS-24-309) (Application) of Otter Tail Power Company (Otter Tail or Applicant) to construct and operate an up to 66 megawatt (MW) photovoltaic (PV) alternating current (AC) solar energy generating facility located in Lammers Township in Beltrami County, Minnesota (Project). The Minnesota Public Utilities Commission (Commission) also requested that the Administrative Law Judge prepare findings of fact and conclusions of law and provide recommendations, if any, on conditions and provisions of the proposed site permit.

Public hearings on the Application were held on May 14, 2025 (in-person), and May 15, 2025 (remote-access). The factual record remained open until May 30, 2025, to receive written public comments.

Christina K. Brusven, Fredrikson & Byron, and Preston D. Riewer, Manager of Engineering, appeared on behalf of Otter Tail.

Cezar Panait, Regulatory Engineer, appeared on behalf of the Commission Staff at the in-person and remote-access hearings.

Tessa Kothlow and Ray Kirsch appeared on behalf of the Department of Commerce (DOC), Energy Environmental Review and Analysis unit (EERA).

STATEMENT OF ISSUES

Has Otter Tail satisfied the criteria established in Minn. Stat. chapter 216E (2023) and Minn. R. chapter 7850 (2023) for a site permit for the Project?

SUMMARY OF RECOMMENDATIONS

The Administrative Law Judge concludes that Otter Tail has satisfied the applicable legal requirements. The Commission should **GRANT** a site permit for the Project, subject to the conditions discussed below.

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

FINDINGS OF FACT

I. APPLICANT

1. Otter Tail is an electric utility that is a subsidiary of investor-owned Otter Tail Corporation and headquartered in Fergus Falls, Minnesota. Otter Tail provides electricity and energy services in Minnesota, North Dakota, and South Dakota.¹

II. PROCEDURAL HISTORY

2. On September 20, 2024, Otter Tail filed a notice of its intent to submit a site permit application for the Project under the alternative permitting procedures of Minn. R. 7850.2800 - .3900 in October of 2024.²

3. On October 11, 2024, Otter Tail submitted the Application for the Project.³ Otter Tail also submitted the Notice of Filing of Application to persons interested in the Project, the Commission's Energy Facilities General List, Local Officials, Tribes, and Property Owners in accordance with Minnesota Rule 7850.2100.⁴

4. On October 18, 2024, the Commission filed a Notice of Comment Period on Application Completeness, requesting initial comments by November 1, 2024, reply comments by November 8, 2024, and supplemental comments by November 13, 2024. The notice requested comments on whether the Application was complete within the meaning of the Commission's rules; whether the Commission should appoint an advisory task force; whether the Commission should direct the Executive Secretary to issue an authorization to initiate a State Historic Preservation Office (SHPO) Consultation to the Applicant; and whether there were any other issues or concerns that should be considered.⁵

5. On November 1, 2024, EERA filed its Comments and Recommendations on Application Completeness. EERA recommended that the Commission accept the Application as complete, not appoint an advisory task force at that time, and request a full Administrative Law Judge report with findings, conclusions, and recommendations related to the Project's public hearings.⁶

6. On November 8, 2024, Otter Tail submitted reply comments concerning Application completeness.⁷ International Union of Operating Engineers Local 49

¹ Ex. OTPC-4 at 2-3 (Application).

² Ex. OTPC-1 (Notice of Intent to Submit a Site Permit Application Under Alternative Review Process).

³ Ex. OTPC-4 (Application).

⁴ Ex. OTPC-2 (Project Notice Under 7850.2100).

⁵ Ex. PUC-1 (Notice of Comment Period on Application Completeness).

⁶ Ex. EERA-1 (Comments and Recommendations Regarding Application Completeness).

⁷ Ex. OTPC-5 (Completeness Reply Comments).

(Local 49) and North Central States Regional Council of Carpenters (NCSRC) also filed reply comments concerning Application completeness.⁸

7. On November 12, 2024, Otter Tail submitted a Compliance Filing – Confirmation of Notice for the Application.⁹

8. On November 14, 2024, LIUNA Minnesota and North Dakota (LIUNA) filed supplemental comments concerning Application completeness.¹⁰

9. On December 6, 2024, the Commission and EERA published Notice of Public Information and Environmental Assessment Scoping Meetings, scheduling the meetings for December 18, 2024 (remote-access), and December 19, 2024 (in-person), opening a public comment period until January 8, 2025, and requesting responses to three questions regarding the Project: (1) what potential human and environmental impacts of the proposed Project should be considered in the Environmental Assessment (EA); (2) are there any methods to minimize, mitigate, or avoid these potential impacts that should be studied in the EA; and (3) are there any unique characteristics of the proposed Project that should be considered in the EA?¹¹

10. On December 18 and 19, 2024, the Commission and EERA conducted Public Information and EA Scoping meetings. Three members of the public provided oral comments at these meetings.¹²

11. On January 8, 2025, the Minnesota Department of Natural Resources (DNR) filed scoping comments.¹³

12. On January 21, 2025, EERA filed the transcripts from the in-person and remote-access Public Information and EA Scoping meetings.¹⁴ EERA also filed written public comments on the scope of the Project.¹⁵

13. On January 28, 2025, the Commission issued an order accepting the Application as substantially complete, declining to appoint an advisory task force, and requesting a full Administrative Law Judge report with recommendations related to the Project's public hearings.¹⁶

⁸ Local 49 and NCSRC Completeness Comments (November 8, 2024) (eDocket No. [202411-211747-01](#)).

⁹ Ex. OTPC-6 (Confirmation of Notice).

¹⁰ LIUNA Completeness Comments (November 14, 2024) (eDocket No. [202411-211907-01](#)).

¹¹ Ex. PUC-2 (Notice of Public Information and EA Scoping Meetings); Ex. EERA-2 (Notice of Public Information and EA Scoping Meetings).

¹² Ex. EERA-3 (Oral Public Comments on the Scope of the EA).

¹³ DNR Scoping Comments (January 8, 2025) ([eDocket No. 20251-213691-01](#)).

¹⁴ Ex. EERA-3 (Oral Public Comments on the Scope of the EA).

¹⁵ Ex. EERA-4 (Written Public Comments on the Scope of the EA).

¹⁶ Ex. PUC-3 (Order).

14. On January 31, 2025, EERA filed the EA Scoping Decision for the Project¹⁷ and the Notice of the EA Scoping Decision.¹⁸

15. A prehearing conference was held on February 11, 2025.¹⁹

16. On February 13, 2025, the Administrative Law Judge issued an Amended Prehearing Order establishing a schedule for the proceeding.²⁰

17. On March 6, 2025, the Commission filed a sample site permit.²¹

18. On April 30, 2025, the EERA filed the EA for the Project.²²

19. Also on April 30, 2025, the Commission filed a Notice of Public Hearings and Availability of Environmental Assessment for hearings on May 14, 2025 (in-person), and May 15, 2025 (remote-access). The Commission also requested comments from the public on (1) whether the Commission should grant a site permit for the proposed solar energy generating system, and (2) if granted, what additional conditions or requirements should be included in the site permit.²³ A newspaper Notice of Public Hearings and Availability of EA was also issued on April 30, 2025, in the Bemidji Pioneer, a newspaper printed and published in the City of Bemidji, Beltrami County, Minnesota.²⁴

20. On May 1, 2025, EERA sent a link to the EA to state agencies and Minnesota Tribal Nations' Tribal Historic Preservation Officers (THPOs) and offered to provide a print copy upon request.²⁵

21. On May 6, 2025, Otter Tail submitted the Direct Testimony of Preston Riewer with Schedules A-F.²⁶

22. Also on May 6, 2025, EERA sent a copy of the EA to the Bemidji Public Library to be made available to the public,²⁷ and a Notice of Public Hearings and Availability of Environmental Assessment was published in the Environmental Quality Board (EQB) Monitor.²⁸

23. On May 12, 2025, Otter Tail filed the Draft Master Exhibit List.²⁹

¹⁷ Ex. EERA-5 (EA Scoping Decision).

¹⁸ Notice of EA Scoping Decision (January 31, 2025) (eDocket No. [20251-214752-02](#)).

¹⁹ Prehearing Transcript (Tr.) (May 19, 2025) (eDocket No. 20255-219054-01).

²⁰ Amended First Prehearing Order (February 13, 2025) (eDocket No. [20252-215362-01](#)).

²¹ Ex. PUC-4 (Sample Site Permit).

²² Ex. EERA-7 (EA).

²³ Ex. PUC-5 (Notice of Public Hearings and Availability of EA); Ex. EERA-6 (Notice of Public Hearings and Availability of EA).

²⁴ Ex. PUC-7 (Affidavit of Publication of Notice of Public Hearings and Availability of EA).

²⁵ Ex. EERA-8 (Notice of EA to Permitting Agencies and THPOs).

²⁶ Ex. OTC-7 (Direct Testimony of Preston Riewer with Schedules A-F).

²⁷ Ex. EERA 9 (Notification of EA Mailed to Public Libraries).

²⁸ Ex. PUC-6 (EQB Monitor, May 6); Ex. EERA-10 (Notification of EA Availability, EQB Monitor).

²⁹ Draft Master Exhibit List (May 12, 2025) (eDocket No. [20255-218806-01](#)).

24. On May 16, 2025, the Commission filed the presentation slides from the May 14 and 15, 2025, public hearing presentation.³⁰

25. On May 27, 2025, EERA filed comments on the Applicant's decommissioning plan and responded to the Applicant's testimony with respect to certain permit conditions for the Project.³¹

26. On June 6, 2025, Otter Tail filed a response to public hearing comments and proposed findings of fact, conclusions of law, and recommendations.³²

III. DESCRIPTION OF THE PROJECT

27. The Project consists of an up to 66 MW solar energy conversion facility located in Beltrami County, Minnesota.³³ The Project will include solar modules and tracking racking systems, inverters, an electrical collection system, a Project substation and interconnection facilities, gravel access roads, perimeter fencing and gates, an operations and maintenance (O&M) building, weather stations, stormwater drainage basins, and temporary facilities such as laydown areas, temporary site offices, parking, and improvements for storage and staging of equipment prior to installation as needed.³⁴

28. The proposed Project will interconnect at the Solway Combustion Turbine Generating Station via the Midcontinent Independent System Operator (MISO) surplus interconnection process, which will have an interconnection limitation of 50 MW.³⁵ Connecting the Project to the Point of Interconnection (POI) at this point will require an additional transformer and less than 500 feet of overhead transmission line.³⁶

29. The Project will provide up to 66 megawatt alternating current (MWac) of nameplate renewable power capacity and generate an average of approximately 101,616 megawatt hours (MWh) annually.³⁷

IV. SITE LOCATION AND CHARACTERISTICS

30. The Project is located in Lammers Township, in Beltrami County, Minnesota, just north of the City of Solway. The location is in the southwest corner of Beltrami County, east of Lammers Road Northwest, south of Thoren Drive Northwest, north of Herman Drive Northwest, and approximately 2.5 miles west of Becker Road Northwest.³⁸

³⁰ Public Hearing Presentation (May 15, 2025) (eDocket No. [20255-219025-01](#)).

³¹ EERA Hearing Comments (May 27, 2025) (eDocket No. [20255-219263-01](#)).

³² Otter Tail's Response to Public Hearing Comments (June 6, 2025) (eDocket No. [20256-219676-01](#)); Otter Tail's Proposed Findings of Fact Conclusions of Law and Recommendations (June 6, 2025) (eDocket No. [20256-219678-02](#)).

³³ Ex. OTPC-4 at 12 (Application).

³⁴ Ex. OTPC-4 at 12 (Application).

³⁵ Ex. OTPC-4 at 1, 4 (Application); Ex. OTPC-2 at 1 (Project Notice Under 7850.2100).

³⁶ Ex. OTPC-4 at 1 (Application).

³⁷ Ex. OTPC-4 at 4 (Application).

³⁸ Ex. OTPC-4 at 13, 45, and Appendix A (Application); Ex. EERA-7 at 15 (EA).

31. Otter Tail has 100 percent land control of the Land Control Area,³⁹ 224 acres⁴⁰ of which are currently designated to host Project components and for O&M of the Project.⁴¹

32. Land use in the Project Area⁴² is predominantly agricultural and deciduous forest but includes low-density residential areas in the northern and western most sides adjacent to the Land Control Area. Land use within the Land Control Area is dominated by agriculture, primarily pasture and haying. Developed land use includes public roads, industrial wells, an electric utility peaking plant, and additional supporting electrical transmission infrastructure.⁴³

33. Approximately 24.5 acres are considered to be prime farmland, which is less than 0.5 acres of prime farmland per MW of net generating capacity of the Project's 66 MW.⁴⁴

V. PROJECT SCHEDULE

34. Otter Tail plans to begin construction between the fourth quarter of 2025 and the fourth quarter of 2026.⁴⁵

VI. SUMMARY OF PUBLIC COMMENTS

35. The Public Information and EA Scoping meetings were held on December 18 and 19, 2024. Three members of the public provided oral comments during the Public Information and EA Scoping Meeting (in-person) held on December 19, 2024. One commenter expressed concerns about additional heat and inquired about how the remaining hundred acres of the property would be used. Another commenter expressed concern about runoff water, particularly with panel failure. A third commenter had a question about the number of phases of the Project.⁴⁶

³⁹ The EA defines "land control area" as the 487-acre area for which Otter Tail is assumed to have site control through ownership. The Application referred to this area the "Project Area." For consistency with the EA, this document uses "Land Control Area" to refer to the 487-acre area evaluated in the EA, and "project area" to refer to the area one mile from the land control area and collection line corridor. See Ex. EERA-7 at vi-vii (EA).

⁴⁰ After the EA was completed, Otter Tail submitted Testimony indicating that it had removed a portion of the Land Control Area. Ex. OTPC-7 at 4:3-4 (Direct Testimony of Preston Riewer with Schedules A-F). References to the Updated Land Control Area refer to this portion of the Project, and references to the Land Control Area include the original proposed Land Control Area, as evaluated in the EA.

⁴¹ Ex. OTPC-4 at 1 (Application); Ex. OTPC-7 at 4:3-4 (Direct Testimony of Preston Riewer with Schedules A-F).

⁴² The EA defines "Project Area" as one mile from the land control area and collection line corridor. See Ex. EERA-7 at vii (EA).

⁴³ Ex. EERA-7 at 38-39 (EA); see also Ex. OTPC-7 at 4:13-14 (Direct Testimony of Preston Riewer with Schedules A-F).

⁴⁴ Ex. OTPC-4 at 15-16 (Application); see Minn. R. 7850.4400, subp. 4.

⁴⁵ Ex. OTPC-7 at 3:27-28 (Direct Testimony of Preston Riewer with Schedules A-F).

⁴⁶ Ex. EERA-3 (Oral Public Comments on the Scope of the EA).

36. No members of the public spoke during the Public Information and EA Scoping Meeting (remote-access) held on December 18, 2024.⁴⁷

37. During the scoping comment period, DNR filed written comments addressing potential environmental impacts regarding fencing, lighting, dust control during construction, the type of erosion control used, and tree clearing. The DNR also recommended that Otter Tail use a Vegetation Management Plan (VMP).⁴⁸

38. DNR recommended the security fence reach a minimum height of ten feet around each group of solar arrays to prevent white-tailed deer and other large wildlife from entering the facility and be designed in accordance with the DNR's *Commercial Solar Siting Guidance and the Fencing Handbook for 10 ft Woven Wire Deer Exclusion Fence*. DNR noted its appreciation that Otter Tail does not intend to use barbed wire along the top of the security fence and requested that Otter Tail coordinate with the DNR to finalize the fencing design to minimize or avoid impacts to wildlife.⁴⁹

39. DNR recommended the lighting installed at the Project be shielded, the nominal color temperature of lighting installed not to exceed 4,000 kelvin, and selected from lighting products that emit the lowest levels of blue hue, backlight, and glare possible to minimize impacts to birds and insects. DNR's Commercial Solar Siting Guidance advises limiting the Uplight rating to 0.⁵⁰

40. DNR advised against using products that contain chloride as a dust suppression agent because they do not break down and may accumulate to levels that are toxic to wildlife and plants, and recommended the EA address fugitive dust levels and dust suppression measures that will be taken during construction and once the facility is operational.⁵¹

41. DNR recommended the EA discuss wildlife friendly erosion control measures at the Project site. The DNR also recommended using biodegradable erosion control materials that are flexible and rectangular due to entanglement concerns of small wildlife. Specifically, erosion control blankets should be limited to "bio-netting" or "natural netting" types and should not contain plastic mesh or other plastic components. If the Applicant intends to use hydro-mulches, the DNR advised using hydro-mulches that do not contain synthetic fibers (plastic) and malachite green dyes that can pose toxicity concerns for fish, wildlife, and insects.⁵²

42. DNR recommended that the Applicant consider a different project layout by moving the Land Control Area and Project Boundary to an area that would require less tree clearing. DNR appreciated Applicant's stated intent to avoid tree removal from March 15 to August 15. DNR also recommended the EA discuss tree clearing at the

⁴⁷ Ex. EERA-3 (Oral Public Comments on the Scope of the EA).

⁴⁸ DNR Scoping Comments (January 8, 2025) ([eDocket No. 20251-213691-01](#)).

⁴⁹ DNR Scoping Comments at 1 (January 8, 2025) ([eDocket No. 20251-213691-01](#)).

⁵⁰ DNR Scoping Comments at 2 (January 8, 2025) ([eDocket No. 20251-213691-01](#)).

⁵¹ DNR Scoping Comments at 2 (January 8, 2025) ([eDocket No. 20251-213691-01](#)).

⁵² DNR Scoping Comments at 2 (January 8, 2025) ([eDocket No. 20251-213691-01](#)).

Project site and the associated ecological and environmental impacts and address tree removal restrictions to protect bat pups.⁵³

43. At the in-person public hearing on May 14, 2025, several commenters asked about expected tax revenue to local governments and the production tax credit.⁵⁴

44. Beltrami County Commissioner John Carlson also asked about the process for recycling solar panels.⁵⁵

45. Beth Hendricks, the Eckles Township Supervisor, shared that Eckles Township abuts Lammers Township and asked if any Eckles Township roads would be impacted when materials were brought to the Project Area.⁵⁶

46. One commenter at the in-person public hearing expressed concern about the impact of solar panels on the environment, especially downstream water quality.⁵⁷

47. On May 27, 2025, EERA filed Hearing Comments recommending modifications to the draft decommissioning plan and addressing Otter Tail's direct testimony.⁵⁸

48. On May 30, 2025, DNR submitted written comments recommending special permit conditions for facility lighting, dust control, wildlife-friendly erosion control, Northern Long-eared Bat (NLEB) protections, and a VMP.⁵⁹

49. Also on May 30, 2025, the Minnesota Interagency Vegetation Management Plan Working Group (VMPWG) filed written comments recognizing that Otter Tail's proposed VMP is achievable. The VMPWG suggested that the VMP be revised to be specific to the Project, such as how it will be implemented, equipment specifications, timing and frequency of management activities, and address the life of the Project. The VMP should include management objectives, site preparation details, and a schedule/sequence of seed installation including a description of when construction, planting, and management activities will occur and a description of what the step entails.⁶⁰ The Judge agrees with the TMPWG suggestions.

VII. PERMITTEE

50. The permittee for the Project is Otter Tail.⁶¹

⁵³ DNR Scoping Comments at 2 (January 8, 2025) ([eDocket No. 20251-213691-01](#)).

⁵⁴ In-Person Public Hearing Tr. at 20-21, 30-31 (May 14, 2025).

⁵⁵ In-Person Public Hearing Tr. at 24 (May 14, 2025).

⁵⁶ In-Person Public Hearing Tr. at 29-30 (May 14, 2025).

⁵⁷ In-Person Public Hearing Tr. at 40 (May 14, 2025).

⁵⁸ Comment by EERA (May 27, 2025) ([eDocket No. 20255-219263-01](#)).

⁵⁹ Comment by DNR (May 30, 2025) ([eDocket No. 20255-219435-01](#)).

⁶⁰ Comment by Vegetation Management Plan Working Group (May 30, 2025) ([eDocket No. 20255-219404-01](#)).

⁶¹ Ex. OTPC-4 at 3 (Application).

VIII. CERTIFICATE OF NEED

51. The Project is exempt from certificate of need requirements pursuant to Minn. Stat. § 216B.2422, subd. 5, and Minn. Stat. § 216B.243, subd. 9 because the Project was selected through a Commission-approved bidding process and intends to meet Minnesota’s renewable energy objectives.⁶²

IX. SITE PERMIT CRITERIA

52. Large electric power generating plants (LEPGP) are governed by Minn. Stat. ch. 216E (2023) and Minn. R. ch. 7850. Minn. Stat. § 216E.01, subd. 5 (2023), defines a LEPPG as a “electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more.”

53. On September 9, 2024, Otter Tail requested a size determination for the Project from EERA.⁶³ On September 13, 2024, EERA informed Otter Tail that, based on the information provided, the Project is subject to the Commission’s siting authority under Minn. Stat. § 216E.021 (2023). Therefore, a site permit is required prior to construction of the Project.⁶⁴

54. An LEPPG powered by solar energy is eligible for the alternative permitting process under Minn. Stat. § 216E.04 (2023). Otter Tail filed the Application under the alternative process established by the Commission in Minn. R. parts 7850.2800-7850.3900.⁶⁵

55. Under Minn. Stat. § 216E.04 (2023), for a LEPPG permitted under the alternative permitting process, EERA prepares an EA for the Commission containing information on the human and environmental impacts of the proposed Project and addresses mitigating measures. The EA is the only state environmental review document required to be prepared on the Project.

56. EERA is responsible for evaluating the Application and administering the environmental review process.⁶⁶

⁶² Ex. OTPC-4 at 10 (Application); Ex. EERA-7 at 26 and Appendix A at 2 (EA and Environmental Assessment Scoping Decision); *see also In the Matter of Otter Tail Power Company’s Petition for Approval of the Solway and Abercrombie Solar Projects*, Docket No. E017/M-24-404, in which Applicant requested the Commission, in relevant part, to determine that the Project is qualified for application towards Applicant’s obligations under Minnesota’s renewable energy objective and standards, including the Eligible Energy Technology Standard and the Carbon Free Standard, and therefore exempt from the certificate of need requirements of Minn. Stat. § 216B.243.

⁶³ Ex. OTPC-4 at 11 (Application).

⁶⁴ Ex. OTPC-4 at Appendix D – Size Determination (Application).

⁶⁵ Ex. OTPC-1 (Notice of Intent to Submit a Site Permit Application Under Alternative Review Process).

⁶⁶ Ex. EERA-7 at Appendix A at 2 (Environmental Assessment Scoping Decision).

X. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT⁶⁷

A. Human Settlement.

57. Minnesota law requires consideration of the Project's effects on human settlement, including displacement of residences and businesses, noise created by construction and operation of the Project, and impacts to aesthetics, cultural values, recreation, and public services.⁶⁸

1. Aesthetics.

58. The visible elements of the solar facility will consist of new PV panel arrays, transformers and inverters, weather stations, an O&M facility, a new substation, a short transmission line, and security fencing surrounding the Project.⁶⁹

59. The Project will be a noticeable change in the landscape, converting approximately 224 acres into solar production. Although the change will be noticeable, there are other existing infrastructure features in the landscape including gravel roads and the power plant with supporting infrastructure. How an individual viewer perceives the change from pastureland or cultivated crop land to a field of solar panels depends, in part, on how a viewer perceives solar panels.⁷⁰

60. For residents outside the Project vicinity and for others with low viewer sensitivity, such as those travelling on Lammers Road Northwest or Thoren Drive Northwest, aesthetic impacts are anticipated to be minimal. For these viewers, the solar panels would be relatively difficult to see due to fencing and vegetation or would be visible for a very short period. For residents in the Project vicinity and for others with high viewer sensitivity traveling on local roads in the Project vicinity, such as Centerline Road Northwest, aesthetic impacts are anticipated to be moderate to significant.⁷¹

61. Down-lit security lighting will be installed outside the O&M facility, Project substation, and along the perimeter fence as necessary for safety and security.⁷²

62. Impacts from facility lighting can be minimized by using shielded and downward-facing light fixtures and using lights that minimize blue hue.⁷³

63. The record demonstrates that Otter Tail has taken steps to avoid and minimize visual impacts. Further, Section 4.3.8 of the draft site permit (DSP) requires the

⁶⁷ See Minn. R. 7850.4100.

⁶⁸ Minn. R. 7850.4100, Item A.

⁶⁹ Ex. EERA-7 at 40 (EA).

⁷⁰ Ex. EERA-7 at 40 (EA); Ex. OTPC-7 at 4:3-4 (Direct Testimony of Preston Riewer with Schedules A-F); Ex. OTPC-4 at 62-63 (Application).

⁷¹ Ex. EERA-7 at 40 (EA).

⁷² Ex. EERA-7 at 40 (EA).

⁷³ Ex. EERA-7 at 41 (EA).

permittee to consider landowner input with respect to visual impacts and to use care to preserve the natural landscape.⁷⁴

2. Noise.

64. The Minnesota Pollution Control Agency (MPCA) has established standards for the regulation of noise levels. The most restrictive MPCA noise limits are 60–65 A-weighted decibels (dBA) during the daytime and 50–55 dBA during the nighttime.⁷⁵

65. In Minnesota, noise standards are based on noise area classifications (NAC) corresponding to the location of the listener, referred to as a receptor. NACs are assigned to areas based on the type of land use activity occurring at that location. Household units, designated camping and picnicking areas, resorts and group camps are assigned to NAC 1; recreational activities (except designated camping and picnicking areas) and parks are assigned to NAC 2; agricultural and related activities are assigned to NAC 3.⁷⁶

66. The primary noise receptors are the local residences. Although there are no residences within the site, there are two residences located within 100 feet of the Project Area and approximately 33 residences in local proximity (within 3,200 feet). The Project Area primarily consists of rural residential homes which fall under NAC 1. Noise receptors could also include individuals working outside of the Project vicinity. Potential noise impacts from the Project are associated with ambient noise of existing power generating facility, construction noise, and operational noise.⁷⁷

67. Distinct noise impacts during construction are anticipated to be moderate to significant depending on location. Noise from construction will be temporary and limited to daytime hours.⁷⁸

68. Noise levels during operation of the Project are anticipated to be minimal. The primary noise sources from the solar facility will be the tracking motors, inverters, and transformers.⁷⁹ In its noise analysis, Otter Tail found the distance required for inverter noise to attenuate to the MPCA limit value of 50 dBA is less than the 900-foot distance of the nearest residence. As a result, the Project-related noise is not anticipated to cause adverse impacts for receptors in the vicinity.⁸⁰

69. Sound control devices on vehicles and equipment (e.g., mufflers) conducting construction activities during daylight hours, and operating vehicles and

⁷⁴ Ex. EERA-7 at 41 (EA); Ex. EERA-7 at Appendix C (Draft Site Permit).

⁷⁵ Minn. R. 7030.0040.

⁷⁶ Ex. EERA-7 at 42 (EA).

⁷⁷ Ex. EERA-7 at 42-43 (EA); Ex. OTPC-4 at 54 (Application).

⁷⁸ Ex. EERA-7 at 43 (EA).

⁷⁹ Ex. EERA-7 at 43 (EA).

⁸⁰ Ex. OTPC-4 at 57 (Application); Ex. EERA-7 at 43-44 (EA).

equipment only when necessary are common ways to mitigate construction noise impacts.⁸¹

70. The record demonstrates that Otter Tail has taken some steps to avoid and minimize noise impacts. Section 4.3.7 of the DSP requires the permittee to comply with noise standards established under Minnesota noise standards as defined under Minnesota Rule, part 7030.010 to 7030.0080, and to limit construction and maintenance activities to daytime hours to the extent practicable.⁸²

71. The EERA's original DSP Special Condition 5.1 would require Otter Tail to file an updated noise impact assessment before the pre-construction meeting.⁸³ As the EA notes, "[n]oise levels during operation of the project are anticipated to be minimal."⁸⁴ The primary source of noise during operation will be the substation transformer and inverters. The substation transformer is anticipated to produce 50 dBA—the MPCA noise standard—at 240 feet. However, the nearest residence is more than 900-feet away from the inverters, so noise levels will not exceed the MPCA noise standard. Moreover, the Project is adjacent to the Solway Combustion Turbine Generating Station, so transformer and inverter noise is consistent with existing noise in the area.⁸⁵

72. EERA's written comments continue to recommend Special Condition 5.1, which requires Otter Tail to complete a noise impact assessment at least 14 days prior to the pre-construction meeting.⁸⁶ EERA further stated that the modeling should assess how noise from all energy infrastructure – the proposed solar facility, the existing Solway Combustion Turbine Generating Station, and the associated substation – impacts receptors in the Project Area and not just the Project alone.⁸⁷

73. In its reply comments, Otter Tail provided additional information to demonstrate that further modeling is not necessary to demonstrate compliance with the noise standards. Specifically, Otter Tail noted that operational noise for the Solway Generating Plant was assessed as part of an Environmental Assessment Worksheet completed for the Generating Plant prior to construction. This assessment concluded that overall L50 noise levels (background plus generator) would be 47 dBA at the nearest receptor, well in compliance with the daytime and nighttime noise standards at the nearest receptor.⁸⁸

74. Operation of the Project alone will comply with the nighttime noise standard of 50 dBA L50. By its nature as a surplus interconnection, operation of the quieter solar Project would offset generation from the louder combustion turbine. Given the minimal operational noise levels of the Project and its offsetting interconnection relationship with

⁸¹ Ex. EERA-7 at 44 (EA).

⁸² Ex. EERA-7 at 44 (EA); Ex. EERA-7 at Appendix C (Draft Site Permit).

⁸³ Ex. EERA-7 at Appendix C (Draft Site Permit).

⁸⁴ Ex. EERA-7 at 43 (EA).

⁸⁵ OTPC-7 at 7-8:23-8 (Direct Testimony of Preston Riewer with Schedules A-F); Ex. EERA-7 at Appendix C (Draft Site Permit).

⁸⁶ Comment by EERA (May 27, 2025) (eDocket No. [20255-219263-01](#)).

⁸⁷ *Id.*; EERA Response Comments at 2 (June 13, 2025) (eDocket No. [20256-219893-01](#)).

⁸⁸ Otter Tail's Response to Public Hearing Comments at 2 (June 6, 2025) (eDocket No. [20256-219676-01](#)).

the combustion turbine, Otter Tail opined that further noise modelling is not needed to confirm compliance with the noise standards.⁸⁹

75. The EERA proposed a modified Special Condition 5.1 that would require Otter Tail to complete noise monitoring if any residents report or file a complaint with respect to Project noise.⁹⁰ At a public hearing, one local resident expressed concern regarding noise in the Project area.⁹¹ EERA's proposed modified special condition for noise modeling is supported by the record here.⁹²

3. *Cultural Values.*

76. The Project contributes to the growth of renewable energy and is likely to strengthen and reinforce this value in the area.⁹³ Construction, operation, and maintenance of the Project is not expected to conflict with the cultural values within the general Project Area so no impacts to cultural values are anticipated.⁹⁴

77. There are no conditions included in the DSP that directly address mitigation for impacts to cultural values. No additional mitigation is proposed.⁹⁵

4. *Land Use and Zoning.*

78. Development of a solar farm in this area will change the land use from predominantly forest and agriculture uses to energy generation for the life of the Project, at least 35 years. The Project would be constructed adjacent to Otter Tail's Solway Combustion Turbine Generation Station, would interconnect at the associated substation, and would use existing interconnection rights associated with the station. Thus, the Project makes fair use of an existing power plant site. The change of land use will have a minimal to moderate impact on the rural character of the surrounding area, and a minimal impact on the county character as a whole.⁹⁶

79. The Project would convert approximately 224 acres of agricultural land, cultivated cropland, and forest land to solar energy production. Otter Tail intends to utilize best management practices (BMPs) as feasible to reduce the impact on land use.⁹⁷

80. The Project is designed to be consistent with the 2018 Beltrami Forest Management Plan that shows that Beltrami County is not planning improvements or

⁸⁹ *Id.* at 3.

⁹⁰ EERA Response Comments at 2 (June 13, 2025) (eDocket No. [20256-219893-01](#)).

⁹¹ EERA Response Comments at 2 (June 13, 2025) (eDocket No. [20256-219893-01](#)); Public Hearing In-Person Public Hearing Tr. at 39 (May 14, 2025).

⁹² OTPC-7 at 7-8:23-8 (Direct Testimony of Preston Riewer with Schedules A-F); Ex. EERA-7 at Appendix C (Draft Site Permit).

⁹³ Ex. EERA-7 at 45 (EA).

⁹⁴ Ex. OTPC-4 at 46 (Application).

⁹⁵ Ex. EERA-7 at 45 (EA); Ex. EERA-7 at Appendix C (Draft Site Permit).

⁹⁶ Ex. EERA-7 at 47 (EA); Ex. EERA-7 at 13 (EA); Ex. OTPC-4 at 16, 62-63 (Application).

⁹⁷ Ex. EERA-7 at 47 (EA); OTPC-7 at 4:3-4 (Direct Testimony of Preston Riewer with Schedules A-F).

managing forest in the Land Control Area. Therefore, there should be no land use conflicts.⁹⁸

81. Otter Tail has developed an Agricultural Impact Mitigation Plan (AIMP)⁹⁹ and a VMP¹⁰⁰ that will be implemented throughout the duration of the Project. The AIMP and VMP identify measures to avoid, minimize, mitigate, and/or repair potential negative agricultural impacts that may result from the construction, operation, or decommissioning of the Project. The AIMP and VMP ensure the Land Control Area may be returned to future agricultural use after the end of the Project's useful life, including identifying BMPs that will be used during construction.¹⁰¹

5. *Property Values.*

82. Impacts to the value of specific properties within the Project vicinity are difficult to determine but could occur.¹⁰²

83. Because each landowner has a unique relationship and sense of value associated with their property, a landowner's assessment of potential impacts to their property's value is often a deeply personal comparison of the property "before" and "after" a proposed project is constructed. The landowner's judgments, however, do not necessarily influence the market value of a property.¹⁰³

84. Peer reviewed studies have found that the effects of large-scale solar facilities "on home sale prices depend on many factors that are not uniform across all solar developments or across all states."¹⁰⁴ Studies of the impact of solar facilities on home prices in Minnesota have not found a consistent negative impact to the sales value of properties near large solar facilities.¹⁰⁵

85. Impacts to the value of specific properties within the Project vicinity are difficult to determine but could occur. To the extent that negative impacts do occur, they are expected to be within one-half mile of the solar facility and to decrease with distance from the Project and with time. Aesthetic impacts that might affect property values would be limited to residences and parcels in the Project vicinity where the solar panels are easily visible.¹⁰⁶

86. Impacts to property values can be mitigated by reducing aesthetic impacts and strains to future land use. Impacts can also be mitigated through individual agreements with neighboring landowners, such as a visual screening plan.¹⁰⁷

⁹⁸ Ex. EERA-7 at 47 (EA).

⁹⁹ Ex. OTPC-4 at Appendix H - AIMP (Application).

¹⁰⁰ Ex. OTPC-4 at Appendix I - VMP (Application).

¹⁰¹ Ex. EERA-7 at 47 (EA).

¹⁰² Ex. EERA-7 at 49 (EA).

¹⁰³ Ex. EERA-7 at 48 (EA).

¹⁰⁴ Ex. EERA-7 at 48-49 (EA).

¹⁰⁵ Ex. EERA-7 at 49 (EA).

¹⁰⁶ Ex. EERA-7 at 49 (EA).

¹⁰⁷ Ex. EERA-7 at 49 (EA).

87. Otter Tail will mitigate aesthetic impacts to residences by retaining trees within 50–75 feet along the northern and western boundaries of the Land Control Area, which will generally obscure visual impacts.¹⁰⁸

6. *Tourism and Recreation.*

88. Tourism in the Project Area is largely related to recreational activities including hiking, fishing, boating, snowmobiling, birdwatching, golfing, and archery. There are also numerous public community engagement activities such as city parks, dog parks, ice arenas, trails and golf courses. There are no recreational resources within the Project Area.¹⁰⁹

89. Impacts to tourism and recreation are anticipated to be minimal and temporary. Due to construction, there will be short-term increases in traffic and noise that could potentially impact recreational activities in close proximity to the Project Area, however, impacts will be temporary. No significant long-term impacts to recreational activities are anticipated.¹¹⁰

90. The Land Control Area is located on private land over a mile away from the nearest public land or recreational resources. Therefore, impacts are anticipated to be minimal and temporary, no additional mitigation measures are proposed.¹¹¹

7. *Transportation and Public Services.*

91. Potential impacts to the electrical grid, roads and railroads, and other utilities are anticipated to be short-term, intermittent, and localized during construction. Impacts to water (wells and septic systems) are not expected to occur. Overall, construction-related impacts are expected to be minimal, and are associated with possible traffic delays. During operation, negligible traffic increases would occur for maintenance. Impacts are unavoidable but can be minimized.¹¹²

92. No impacts to geologic and groundwater resources from the Project are anticipated. A well construction permit from the Minnesota Department of Health (MDH) will be required for a single domestic-sized water well for the O&M facility.¹¹³

93. Impacts to electrical infrastructure that cross the Project can be mitigated by appropriate coordination with the owners of the existing infrastructure and following industry best practices.¹¹⁴

94. The Land Control Area will span two existing roadways, Centerline Road Northwest for approximately 0.73 miles and Herman Drive Northwest for 0.04 miles.

¹⁰⁸ Ex. OTPC-4 at 45 (Application).

¹⁰⁹ Ex. EERA-7 at 50 (EA).

¹¹⁰ Ex. EERA-7 at 50 (EA).

¹¹¹ Ex. EERA-7 at 50 (EA).

¹¹² Ex. EERA-7 at 50 (EA).

¹¹³ Ex. EERA-7 at 51 (EA); Ex. EERA-7 at 52 (EA).

¹¹⁴ Ex. EERA-7 at 53 (EA).

Additionally, the Project will border and share rights-of-way (ROW) with Thoren Drive Northwest and Lammers Road Northwest. A review of the Beltrami County Transportation Improvement Plan did not indicate that any roadway improvement projects are planned in the Land Control Area.¹¹⁵

95. Beth Hendricks, the Eckles Township Supervisor, shared that Eckles Township abuts Lammers Township and asked on which roadways would the materials be arriving.¹¹⁶ She asked if any Eckles Township roads would be impacted. While Otter Tail has not identified final haul routes, Section 4.3.22 of the DSP requires permittees to inform road authorities of roads that will be used during construction and acquire necessary permits and approvals for oversize and overweight loads. Otter Tail will coordinate with local road authorities as required to address use of area roads.¹¹⁷

96. The Project is designed to avoid existing ROW. Otter Tail removed the southwestern solar array, and with the removal of this array, no impacts to the Great Lakes gas pipeline are expected.¹¹⁸

97. Otter Tail will notify Gopher State One-Call of all proposed excavations to ensure that underground utilities will not be impacted throughout construction. If a pipeline or water line must be spanned during construction of the Project, soil preserving BMPs will be used, such as placing construction matting over underground utilities when using heavy equipment.¹¹⁹

98. DSP Special Condition 5.2 would require a subsurface investigation “to avoid damage to underground public utilities,” and would require that Otter Tail “confer with the Great Lakes Gas Transmission Company to avoid impacts to the Great Lakes gas pipeline.” Otter Tail has updated the Project design to remove the southwestern solar array from the Project Footprint, avoiding any potential impact the Great Lakes gas pipeline. As such, Otter Tail and EERA agree that Special Condition Section 5.2 of the DSP is no longer needed.¹²⁰ Condition 5.2 of the DSP is not supported by the record.

8. *Socioeconomics.*

99. Potential impacts associated with construction will be positive, but minimal and short-term. Significant positive effects might occur for individuals. Impacts from operation will be long-term, positive, and moderate. The Project will not disrupt local communities or businesses and does not disproportionately impact low-income or minority populations. Adverse impacts are not anticipated.¹²¹

¹¹⁵ Ex. OTPC-4 at 58 (Application).

¹¹⁶ In-Person Public Hearing Tr. at 29-30 (May 14, 2025).

¹¹⁷ Otter Tail's Response to Public Hearing Comments at 8 (June 6, 2025) (eDocket No. [20256-219676-01](#)).

¹¹⁸ OTPC-7 at 4:9-14 (Direct Testimony of Preston Riewer with Schedules A-F).

¹¹⁹ Ex. EERA-7 at 53 (EA).

¹²⁰ OTPC-7 at 8:10-18 (Direct Testimony of Preston Riewer with Schedules A-F); Ex. EERA-7 at Appendix C (Draft Site Permit); Comment by EERA at 6 (May 27, 2025) (eDocket No. [20255-219263-01](#)).

¹²¹ Ex. EERA-7 at 55 (EA).

100. Construction of the Project is likely to result in increased expenditures for lodging, food and fuel, transportation, and general supplies at local businesses during construction. Construction of the Project will create local job opportunities for various trade professionals and will also generate and circulate income throughout the community by investing in local business expenditures as well as state and local taxes.¹²²

101. The Project is expected to create approximately 70 to 80 temporary construction jobs and up to two long-term personnel to operate and maintain the facility during the operational phase of the Project.¹²³

102. Long-term benefits of the Project include ensuring continued, reliable electric service for communities served by the Project and economic benefits through incremental increase in revenues from utility property taxes. Once the Project is operational, Otter Tail will pay property tax and production taxes on the land and energy production to local governments. Minnesota has adopted a production tax of \$1.20/MWh paid 80 percent to counties and 20 percent to the cities and townships.¹²⁴

103. Socioeconomic impacts are anticipated to be positive overall.¹²⁵

9. *Environmental Justice.*

104. Environmental justice is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”¹²⁶

105. In Minnesota, environmental justice areas are defined as census tracts:

- in which at least 40 percent of the population is nonwhite
- in which at least 35 percent of households have income at or below 200 percent of the federal poverty level
- in which at least 40 percent of the population has limited proficiency in English; or
- which are located within Indian Country, which is defined as federally recognized reservations and other Indigenous lands.¹²⁷

106. Based on a demographic assessment of the affected community, the Project will not create disproportionate or adverse impacts to low-income or minority populations because the percentage of low-income and minority residents in the Project

¹²² Ex. EERA-7 at 55 (EA).

¹²³ Ex. EERA-7 at 55 (EA).

¹²⁴ Ex. EERA-7 at 56 (EA).

¹²⁵ Ex. EERA-7 at 56 (EA).

¹²⁶ Ex. EERA-7 at 56–57 (EA).

¹²⁷ Minn. Stat. § 116.065; Ex. EERA-7 at 57 (EA).

Area is not meaningfully greater than Beltrami County or the state of Minnesota. Additional mitigation is not proposed.¹²⁸

B. Public Health and Safety.

107. Minnesota law requires consideration of the Project's potential effect on health and safety.¹²⁹

1. Electric and Magnetic Fields (EMF).

108. Currently, there are no federal regulations regarding allowable extremely low frequency EMF (ELF-EMF) produced by power lines in the United States; however, state governments have developed state-specific regulations.¹³⁰

109. The Commission limits the maximum electric field under high voltage transmission lines in Minnesota to 8.0 kV/m. It has not adopted a standard for magnetic fields.¹³¹

110. The primary sources of EMF from the Project will be from the solar arrays, buried electrical collection lines, and the transformers installed at each inverter.¹³²

111. No health impacts from the EMF are anticipated. EMF diminishes with distance from a conductor or inverter. The nearest residence to the inverter equipment is about 900 feet, and the nearest 34.5 kV collector line is also about 900 feet from the nearest residence. At this distance, EMF will dissipate to background levels. No additional mitigation is proposed.¹³³

2. Public Safety and Emergency Services.

112. The Project will be designed and constructed in compliance with applicable electric codes. Electrical inspections will ensure proper installation of all components, and the Project will undergo routine inspection. Electrical work will be completed by trained technicians.¹³⁴

113. The inflow of temporary construction personnel could increase demand for emergency and public health services. On-the-job injuries of construction workers requiring assistance due to slips, trips or falls, equipment use, or electrocution can create a demand for emergency, public health, or safety services that would not exist if the Project were not built. Otter Tail will coordinate with local emergency services to ensure that emergency access to areas near construction activities is maintained and will contact

¹²⁸ Ex. EERA-7 at 58 (EA).

¹²⁹ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100, Item B.

¹³⁰ Ex. EERA-7 at 60 (EA).

¹³¹ Ex. OTPC-4 at 52 (Application).

¹³² Ex. EERA-7 at 61 (EA).

¹³³ Ex. EERA-7 at 61 (EA).

¹³⁴ Ex. EERA-7 at 62 (EA).

utility providers, businesses, or residents near the construction area to notify them of the potential impacts and prevent damage to public utilities.¹³⁵

114. Otter Tail will regularly remove waste throughout construction, and paper, plastic, petroleum, and other waste products will be gathered and disposed of appropriately at surrounding waste disposal facilities.¹³⁶ Solar panels can be specifically evaluated as non-hazardous. If solar panels are not evaluated as non-hazardous, they are assumed to be hazardous waste due to the probable presence of heavy metals. Heavy metals in solar panels can include arsenic, cadmium, lead, and selenium. Otter Tail has not selected equipment models yet, so the waste disposal requirements are unknown.¹³⁷

115. Otter Tail plans to recycle solar panels to the extent practicable and is participating in a state-level working group of government, industry, and other organizations to develop recommendations for future solar recycling efforts in Minnesota.¹³⁸

116. DSP Section 4.3.27 requires the Permittee to remove and properly dispose of waste. DSP Section 4.3.28 further requires that the Permittee take appropriate precautions to protect against pollution of the environment and requires the Permittee to comply with all laws applicable to disposal of waste generated.¹³⁹

117. Construction work is regulated by federal and state Occupational Safety and Health Administration (OSHA) requirements for worker safety, and must comply with local, state, and federal regulations regarding installation of the facilities and qualifications of workers. Established industry safety procedures will be followed during and after construction of the Project. Otter Tail indicates that the Project will be fenced and locked to prevent unauthorized access, and signs will be posted to warn unauthorized persons not to enter fenced area due to the presence of electrical equipment.¹⁴⁰

118. The record demonstrates that Otter Tail has taken steps to avoid and minimize impacts to public safety and emergency services. Further, public safety is addressed in Sections 4.3.30, 8.12, 8.13, and 9.1 of the DSP.¹⁴¹

C. Land-Based Economies.

119. Minnesota law requires consideration of the Project's potential effect on land-based economies – specifically, agriculture, forestry, tourism, and mining.¹⁴²

¹³⁵ Ex. EERA-7 at 62 (EA).

¹³⁶ Ex. EERA-7 at 62 (EA); OTPC-4 at 62 (Application).

¹³⁷ See Ex. EERA-7 at 43, 61- 62 (EA) (noting that equipment models have not been selected and explaining waste disposal requirements); OTPC-4 at 62 (Application).

¹³⁸ See Virtual Hearing Tr. at 29 (May 15, 2025).

¹³⁹ Ex. EERA-7 at Appendix C (Draft Site Permit).

¹⁴⁰ Ex. EERA-7 at 63 (EA).

¹⁴¹ Ex. EERA-7 at 63 (EA); Ex. EERA-7 at Appendix C (Draft Site Permit).

¹⁴² Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, Item C.

120. The Project is not anticipated to impact mining.¹⁴³ Tourism is discussed in Section A(6) above.

1. Agriculture.

121. Agricultural uses cover a large portion of the Project Area with approximately 36.3 percent of the Project Area used for pasture and 11.9 percent used for cultivated crops (soybean, hay, alfalfa, and corn).¹⁴⁴

122. Approximately 5 percent of the Project Area is designated as prime farmland (24.5 acres), 2.5 percent of the Project Area is designated as prime farmland if drained (12.2 acres). Together this totals to 36.7 acres or 7.5 percent of the overall Project Area. However, only 6.7 acres of prime farmland, if drained, will be developed within the Project Footprint, the rest is outside the Project Footprint. With respect to prime farmland, Otter Tail indicates that no feasible or prudent alternatives to the Project exist.¹⁴⁵

123. Potential impacts to agriculture producers are anticipated to be minimal to moderate – lost farming revenues will be offset by lease or easement agreements. A loss of farmland in Beltrami County would occur for the life of the Project. Potential impacts are localized and unavoidable but can be minimized.¹⁴⁶ Further, agricultural mitigation and soil-related impacts are addressed in Sections 4.3.9, 4.3.10, 4.3.11, 4.3.16, 4.3.17, 4.3.18, 4.3.20, 4.3.21, and 4.3.29 of the DSP.¹⁴⁷

2. Forestry.

124. Potential impacts to forestry management are not anticipated as the county is not managing forest in the Land Control Area or within two miles of the Land Control Area. To construct the Project, tall vegetation must be cleared to support the placement of the solar facilities, resulting in the clearing of 79 acres of deciduous forest within the Land Control Area. Otter Tail states that all timber cleared during construction would be moved and disposed of properly prior to operation of the Project.¹⁴⁸

125. Potential impacts related to forestry economics and timber sales revenue are not anticipated as no known commercial forestry operations are within the vicinity of the Project and the Project is not located within any active timber sale tracts. The tree clearing necessary for the Project will be offset by Beltrami's larger forestry-based economy.¹⁴⁹

¹⁴³ Ex. EERA-7 at 93 (EA).

¹⁴⁴ Ex. EERA-7 at 63 (EA).

¹⁴⁵ Ex. EERA-7 at 63-64 (EA).

¹⁴⁶ Ex. EERA-7 at 63 (EA).

¹⁴⁷ Ex. EERA-7 at 64-65 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁴⁸ Ex. EERA-7 at 65-66 (EA); Ex. OTPC-7 at 4:9-10 (Direct Testimony of Preston Riewer with Schedules A-F).

¹⁴⁹ Ex. EERA-7 at 66 (EA).

126. Otter Tail has removed the southwestern portion of the solar array from the Project Footprint, which will reduce the tree clearing area from 115 acres to 79 acres.¹⁵⁰

127. Beltrami County has one comprehensive plan, the Beltrami County Forest Management Plan, that concerns land use and land improvements in the county. This plan does not indicate that Beltrami County is planning improvements or managing forest in the Project or within two miles of the Project Area.¹⁵¹

128. Impact intensity is expected to be minimal to moderate – a negligible loss of forest in Beltrami County would occur for the life of the Project. Tree clearing will be offset by the Beltrami County's larger forestry-based economy. Potential impacts are localized and unavoidable but can be reduced by minimizing tree clearing.¹⁵²

D. Archaeological and Historic Resources.

129. Minnesota law requires consideration of the Project's potential effects on historic and archaeological resources.¹⁵³

130. Section 4.3.23 of the DSP addresses archeological resources and requires the permittee to avoid impacts to archaeological and historic resources where possible and to mitigate impacts where avoidance is not possible.¹⁵⁴

131. Section 5.3 of the DSP requires preparation of a Phase I Archaeological Survey for the areas within the Project identified as possessing high archaeological potential. Otter Tail completed and submitted the Phase I cultural resources survey report titled *Solway Solar Project, Beltrami County, Minnesota* for SHPO's review on November 26, 2024. SHPO requested additional information on January 31, 2025, and reviewed the updated Phase I cultural resources survey report.¹⁵⁵

132. Otter Tail conducted a Phase Ia Cultural Resources Literature Review and Assessment using the Minnesota Statewide Historic Inventory Portal records. This literature review showed no previously recorded archaeological sites, previously inventoried historical cemeteries or architectural properties, National Historic Landmarks, or Locally Designated historic properties identified within the study area.¹⁵⁶

133. Otter Tail received a letter from the Minnesota SHPO dated March 21, 2025, stating that they determined that "no significant archaeological sites will be affected by this project and that there are no properties listed in the National or State Registers of

¹⁵⁰ Ex. OTPC-7 at 4:9-10 (Direct Testimony of Preston Riewer with Schedules A-F).

¹⁵¹ Ex. EERA-7 at 66 (EA).

¹⁵² Ex. EERA-7 at 65-66 (EA).

¹⁵³ Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, Item D.

¹⁵⁴ Ex. EERA-7 at 67 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁵⁵ Ex. EERA-7 at 68 (EA); Ex. OTPC-7 at 5:7-21 and Schedule F (Direct Testimony of Preston Riewer with Schedules A-F); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁵⁶ Ex. EERA-7 at 67 (EA).

Historic Places, or within the Historic Sites Network, that will be affected by this project.” With this concurrence, SHPO coordination on the Project concluded.¹⁵⁷

E. Natural Environment.

134. Minnesota law requires consideration of the Project’s potential effects on the natural environment, including effects on air and water quality resources and flora and fauna.¹⁵⁸

1. Air Quality.

135. Minimal intermittent air emissions are expected during construction of the Project. Air emissions associated with construction are highly dependent upon weather conditions and the specific activity occurring. For example, traveling to a construction site on a dry gravel road will result in more fugitive dust than traveling the same road when wet. Once operational, neither the generating facility nor the transmission line will generate criteria pollutants.¹⁵⁹

136. Exhaust emissions can be minimized by keeping vehicles and equipment in good working order and not running equipment unless necessary. BMPs will be used during construction and operation of the Project to minimize dust and emissions.¹⁶⁰

137. As a component of the construction stormwater permit (CSW Permit) that will be obtained for the Project, a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) CSW Permit and an associated Stormwater Pollution Prevention Plan (SWPPP) will be developed and implemented prior to construction in order to minimize the potential for fugitive dust emissions.¹⁶¹

138. Otter Tail indicates that dust from construction traffic will be controlled using standard construction practices such as watering of exposed surfaces, covering of disturbed areas, and reduced speeds.¹⁶²

2. Geology and Groundwater.

139. The Land Control Area was reviewed for wells listed on the Minnesota Well Index (MWI) and MDH Wellhead Protection Areas (WHPAs). The MDH maintains the MWI, which provides basic information (e.g., location, depth, geology, construction, and static water level) for wells and borings drilled in Minnesota. The MWI identified two documented industrial wells near the facility building on site and four additional wells within 0.5 miles of the Land Control Area.¹⁶³

¹⁵⁷ Ex. OTPC-7 at 5:16-21 and Schedule F (Direct Testimony of Preston Riewer with Schedules A-F).

¹⁵⁸ Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, Item E.

¹⁵⁹ Ex. EERA-7 at 69 (EA).

¹⁶⁰ Ex. EERA-7 at 70 (EA).

¹⁶¹ Ex. EERA-7 at 70 (EA).

¹⁶² Ex. EERA-7 at 70 (EA).

¹⁶³ Ex. EERA-7 at 71 (EA).

140. Potential impacts to geology and groundwater can occur directly or indirectly. Impacts to geological resources are likely to be minimal, due to the absence of shallow bedrock, karst features, and map faults within the Land Control Area.¹⁶⁴

141. Impacts to groundwater resources, including aquifers and the Grant Creek, are not anticipated as water supply needs will be limited, and the unconfined aquifer is greater than 45 feet below ground surface.¹⁶⁵

142. Construction of the Project is not likely to require subsurface blasting, and newly fractured bedrock causing groundwater flow is not anticipated. A domestic well is likely to be installed as a component of the O&M building. Otter Tail acknowledges that the construction of the Project will create an increase in impervious and semi-impervious surfaces within the area of land control. This could lead to an increase of stormwater runoff, and in turn reduce groundwater recharge.¹⁶⁶

143. Because the Project will disturb more than one acre, Otter Tail must obtain a CSW Permit from the MPCA. The CSW Permit will identify BMPs for erosion prevention and sediment control. As part of the CSW Permit, Otter Tail will develop a SWPPP that describes construction activity, temporary and permanent erosion and sediment controls, BMPs, permanent stormwater management that will be implemented during construction and throughout the life of the Project. Implementation of the protocols outlined in the SWPPP will minimize the potential for soil erosion and detail stormwater management methods during construction and operation of the facility.¹⁶⁷

144. The Project is not anticipated to require the use or storage of large quantities of hazardous materials that might otherwise have the potential to spill or leak into area groundwater. A Spill Prevention, Control, and Countermeasure (SPCC) Plan will be required for the main power transformer located in the Project substation, as well as for oil-filled operation equipment (inverter/transformer) or oil storage at the O&M building. The transformers will be properly contained per United States Environmental Protection Agency (USEPA) requirements. The SPCC, because of its specificity, will be completed prior to construction. An additional SPCC plan will also likely be needed for the operational phase of the Project.¹⁶⁸

145. Any dewatering required during construction will be discharged to the surrounding upland vegetation, thereby allowing it to infiltrate back into the ground to minimize potential impacts. A Water Appropriations Permit from DNR is required if dewatering of more than 10,000 gallons per day or 1,000,000 gallons per year occurs. Otter Tail will obtain a Water Appropriation Permit if dewatering is required.¹⁶⁹

¹⁶⁴ Ex. EERA-7 at 71 (EA).

¹⁶⁵ Ex. EERA-7 at 72 (EA).

¹⁶⁶ Ex. EERA-7 at 72 (EA).

¹⁶⁷ Ex. EERA-7 at 73 (EA).

¹⁶⁸ Ex. EERA-7 at 72 (EA).

¹⁶⁹ Ex. EERA-7 at 73 (EA).

146. DSP Section 4.5.2 would require Otter Tail to comply with all other applicable state statutes and rules and would require Otter Tail to obtain all required permits for the Project and comply with the conditions of those permits.¹⁷⁰

3. *Soils.*

147. Primary impacts to soils include compaction from construction equipment, soil profile mixing during grading and pole auguring, rutting from tire traffic, and soil erosion. Impacts to soils are likely to be greatest with the below-ground electrical collection system. Potential impacts will be positive and negative, and short- and long-term. Isolated moderate to significant negative impacts associated with high rainfall events could occur. Because the soil at the solar facility would be covered with native perennial vegetation for the operating life of the Project, soil health would likely improve over the operating life of the Project.¹⁷¹

148. Construction within the Updated Land Control Area will disturb approximately 224 acres of land used for the solar facility Project site.¹⁷²

149. Otter Tail is committed to mitigating negative soil impacts by minimizing soil compaction, preserving topsoil, and establishing and maintaining appropriate vegetation in accordance with BMPs found in the requirements of the SWPPP and outlined in the Applicant's AIMP and VMP.¹⁷³

150. Sections 4.3.9, 4.3.11, 4.3.16, 4.3.17, and 4.3.18 of the DSP address soil-related impacts from the Project.¹⁷⁴

4. *Surface Water and Floodplains.*

151. Due to the establishment of perennial vegetation at the solar facility, the Project is expected to have a long-term positive impact on water quality.¹⁷⁵

152. The Project is designed to avoid direct impacts to surface waters by avoiding placement of Project components such as access roads, solar arrays, inverters, or transmission structures in surface waters.¹⁷⁶

153. At the in-person public hearing, one commenter noted that on the east side of County Road 5, the area floods almost every year.¹⁷⁷

154. The Project's stormwater system will be designed to manage flooding during heavy rainfall events, and the Project's electrical collection system is designed to

¹⁷⁰ Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁷¹ Ex. EERA-7 at 74 (EA).

¹⁷² Ex. EERA-7 at 74 (EA); Ex. OTPC-7 at 4:1-5 and Schedule F (Direct Testimony of Preston Riewer with Schedules A-F).

¹⁷³ Ex. OTPC-4 at 81 (Application).

¹⁷⁴ Ex. EERA-7 at 75 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁷⁵ Ex. EERA-7 at 77 (EA).

¹⁷⁶ Ex. EERA-7 at 77 (EA).

¹⁷⁷ In-person Public Hearing Tr. at 33 (May 14, 2025).

be resistant to flood damage. Otter Tail will also minimize erosion during construction activities through implementation of a SWPPP.¹⁷⁸

155. Standard construction management practices, including but not limited to, containment of excavated soils, protection of exposed soils, stabilization of restored soils, and controlling fugitive dust, would minimize the potential for eroded soils to reach surface waters.¹⁷⁹

156. BMPs to minimize the impact on surface waters will be utilized as a part of the SWPPP, including but not limited to, sediment control, revegetation plans, and management of exposed soils to prevent sediment from entering waterbodies.¹⁸⁰

157. Otter Tail plans to maintain drainage system integrity during construction, including rerouting, reinforcement, or other methods outlined in the AIMP filed with the Application.¹⁸¹

158. The record demonstrates that Otter Tail has taken steps to avoid and minimize surface water and floodplain impacts. Further, Sections 4.3.11, 4.3.13 and 4.3.16 of the DSP address potential impacts to surface waters.¹⁸²

5. *Wetlands.*

159. Otter Tail contracted with HDR Engineering and completed a wetland delineation in August 2024 across the entire Land Control Area (487 acres) including an additional boundary around the site totaling to a 500-acre inspection area. Preliminary results of the field investigation identified approximately 48 wetlands totaling to 13.8 acres within the Land Control Area. Eleven acres of palustrine emergent wetlands (PEM) Type 2 wetland were delineated within the Land Control Area. These systems are associated with saturated meadows with dominant herbaceous vegetation of grass and sedge varieties. Of these eleven acres of PEM wetland, 1.39 acres are likely artificial wetlands associated with a constructed water detention pond and drainage from the adjacent facility. Palustrine unconsolidated bottom (PUB) Type 3 wetland (0.14 acres) was delineated within the Land Control Area. This area was an open water pond with an unconsolidated bottom with dominant vegetation of lake sedge, water plantain, and reed canary grass.¹⁸³

160. Although wetlands have been identified within the Land Control Area, the preliminary site layout for the solar facility avoids locating solar arrays and associated facilities in wetlands. The wetlands still within the Land Control Area are along the border of the Land Control Area, along roadways. There may be potential for temporary,

¹⁷⁸ EERA Ex. 7 at 90-91 (EA).

¹⁷⁹ Ex. EERA-7 at 77 (EA).

¹⁸⁰ Ex. EERA-7 at 77 (EA).

¹⁸¹ Ex. EERA-7 at 77 (EA).

¹⁸² Ex. EERA-7 at 77 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁸³ Ex. EERA-7 at 79 (EA); at Ex. OTPC-4 at Appendix N – Cultural Literature Review (Application).

short-term impacts to wetlands that occur during installation of the electrical collection lines and temporary access roads.¹⁸⁴

161. If wetland impacts are required for the final layout, coordination with the appropriate agency, such as the United States Army Corps of Engineers (USACE) under Section 404 and 401 of the Federal Clean Water Act (CWA) and the Beltrami County SWCD under the Minnesota Wetland Conservation Act (WCA), would occur prior to construction. If unavoidable wetland impacts take place, impacts will be replaced in accordance with Section 404 of the Federal CWA and the Minnesota WCA.¹⁸⁵

162. The record demonstrates that Otter Tail has taken steps to avoid and minimize impacts to wetlands. Further, Section 4.3.13 of the DSP prohibits placement of the solar energy generating system or associated facilities in public waters and public waters wetlands.¹⁸⁶

6. *Vegetation.*

163. The solar facility is located in the Laurentian Mixed Forest Province, Northern Minnesota Drift and Lake Plains Section, and Chippewa Plains Subsection (212Na).¹⁸⁷

164. Construction of the solar facility will temporarily eliminate vegetative cover and create some additional impermeable surfaces. Removal of vegetative cover exposes soils and could result in soil erosion. Temporary or permanent removal of vegetation also has the potential to affect wildlife habitat. Permanent impacts will occur to approximately 79 acres of trees that will be cleared to support construction and operation of the Project.¹⁸⁸

165. Agricultural land within the solar facility would be converted to perennial, low growing vegetative cover, resulting in a net increase in vegetative cover for the life of the Project. The low growing vegetative cover inside the security fence, making up a majority of the Project footprint, markedly under the arrays, will be a two-foot-tall array mix comprised of native grass and forbs species that grow to a height which will not interfere with the safe and reliable operation of the solar array.¹⁸⁹

166. The record demonstrates that Otter Tail has taken steps to avoid and minimize impacts to vegetation. Further, Sections 4.3.17, 4.3.18, and 4.3.15 of the DSP address impacts to vegetation.¹⁹⁰

7. *Wildlife and Habitat.*

¹⁸⁴ Ex. EERA-7 at 80 (EA).

¹⁸⁵ Ex. EERA-7 at 80 (EA).

¹⁸⁶ Ex. EERA-7 at 80 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁸⁷ Ex. EERA-7 at 80 (EA).

¹⁸⁸ Ex. EERA-7 at 80 (EA); Ex. OTPC-7 at 4:9-10 (Direct Testimony of Preston Riewer with Schedules A-F).

¹⁸⁹ Ex. EERA-7 at 80-81 (EA).

¹⁹⁰ Ex. EERA-7 at 81-82 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

167. The Land Control Area landscape is dominated by agriculture and forest. Landscape types and vegetation communities vary throughout the local vicinity. Wildlife associated with rangeland, deciduous forest patches, shallow wetlands, and habitat transition zone are common in the Project Area. Homesteads, farmsteads, pastures, and forested areas may provide ideal habitat for a variety of wildlife species well-adapted to broken forest patches and areas dominated by agriculture.¹⁹¹

168. The impact intensity level is expected to be minimal. Impacts could be positive or negative and depend on species type. Potential impacts will be short- and long-term and can be mitigated.¹⁹²

169. Overall, the Project does not contribute to significant habitat loss or degradation or create new habitat edge effects.¹⁹³

170. The record demonstrates that Otter Tail has taken steps to avoid and minimize impacts to wildlife and habitat. Further, Sections 4.3.16, 4.3.32, and 8.14 of the DSP specify measures that will minimize impacts to wildlife.¹⁹⁴

171. DSP Special Condition 5.5 would require the Permittee to “comply with DNR wolf management guidance.”¹⁹⁵ DNR’s Wolf Management webpage is cited in the EA, but Otter Tail asserts it is unclear what portions of the webpage apply to the Project. Accordingly, Otter Tail requests Special Condition 5.5 to be revised to remove this undefined requirement, as follows:

5.5 Gray Wolf

The Permittee shall ~~comply with DNR wolf management guidance~~ notify the U.S. Fish and Wildlife Service if there is observed gray wolf activity during project construction that could indicate a den or rendezvous site in proximity.

172. This condition, as modified, is consistent with the recommendations in U.S. Fish and Wildlife Service’s Information for Planning and Construction (IPaC) results (see Application Appendix Q), and with the identified modification, the Applicant is amenable to this condition.¹⁹⁶

173. EERA did not object to Otter Tail’s proposed modification because it does not change the intent of the special condition.¹⁹⁷

¹⁹¹ Ex. EERA-7 at 82 (EA).

¹⁹² Ex. EERA-7 at 83 (EA).

¹⁹³ Ex. EERA-7 at 84 (EA).

¹⁹⁴ Ex. EERA-7 at 84 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁹⁵ Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

¹⁹⁶ Ex. OTPC-7 at 8-9:20-6 (Direct Testimony of Preston Riewer with Schedules A-F).

¹⁹⁷ EERA Hearing Comments (May 27, 2025) (eDocket No. 20255-219263-01).

174. Accordingly, DSP Special Condition 5.5, as modified by the Applicant, is reasonable and supported by the record.¹⁹⁸

175. Section 5.6 in the DSP requires the permittee, after consultation with the United States Fish and Wildlife Service (USFWS), to file documentation authorizing any Bald Eagle nest removal prior to construction.¹⁹⁹ The Applicant did not object to the inclusion of this condition.²⁰⁰

8. Climate Change.

176. The Project will help to shift energy production in Minnesota and the upper Midwest toward carbon-free sources. Construction emissions will have a short-term negligible increase in greenhouse gases (GHG) that contribute to climate change. Overall, the Project will generate energy that can be used to displace energy otherwise generated by carbon-fueled sources. The total GHG emissions produced by construction and operation of the Project will be minimal when compared to the reduction in GHG emissions long-term. The Project's design incorporates design elements that minimize impacts from the increase in extreme weather events such as increase flooding, storms, and heat wave events that are expected to accompany a warming climate.²⁰¹

F. Rare and Unique Natural Resources.

177. Minnesota law requires consideration of the Project's potential effects on rare and unique natural resources.²⁰²

178. There are no Minnesota Biological Survey (MBS) sites of moderate, high, or outstanding biodiversity significance within the Project Area. The Bemidji Slough Wildlife Management Area (WMA) is 9.1 miles northeast of the Project Area. This WMA is a wetland and upland grassland complex surround by agricultural lands and commercial development.²⁰³

179. While the Land Control Area is primarily agricultural lands with little forested habitat, the NLEB is limited to shelterbelts or windbreaks. The Natural Heritage Review indicated the federally endangered NLEB may occur in forested areas throughout Minnesota, which includes habitat observed in the Land Control Area; however, according to the official IPaC queried on August 30, 2024, impacts to this species should not occur within one mile of the Land Control Area.²⁰⁴

180. Gray wolves and monarch butterflies are potentially present within one mile of the Project. However, the Project is not likely to adversely affect these species.²⁰⁵

¹⁹⁸ Ex. OTPC-7 at 8-9:20-6 (Direct Testimony of Preston Riewer with Schedules A-F).

¹⁹⁹ Ex. EERA-7 at 87 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

²⁰⁰ Ex. OTPC-7 (Direct Testimony of Preston Riewer with Schedules A-F), *generally*.

²⁰¹ Ex. EERA-7 at 88 (EA).

²⁰² Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100, subp. F.

²⁰³ Ex. EERA-7 at 86 (EA).

²⁰⁴ Ex. EERA-7 at 86 (EA).

²⁰⁵ Ex. EERA-7 at 86-87 (EA).

181. Bald eagles typically nest in mature trees near large lakes or streams. Nesting habitat suitable for bald eagles is not present within the Project site. The USFWS will coordinate appropriate mitigation measures for bald eagles for the Project. Mitigation measures may include setbacks from nests, timing restrictions for construction activities, and possibly seeking a USFWS permit for removal of a nest.²⁰⁶

182. Techniques for minimizing impacts to wildlife and vegetation also minimize impacts to rare species. Avoiding identified areas of species occurrence or preferred habitat is the preferred mitigation measure.²⁰⁷

183. The record demonstrates that Otter Tail has taken steps to avoid and minimize impacts to rare and unique resources. Further, Sections 5.4, 5.5. and 5.6 of the DSP specify measures to minimize impacts to rare species.²⁰⁸

G. Application of Various Design Considerations.

184. Minnesota law requires consideration of the application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity.²⁰⁹

185. Otter Tail is not required to propose alternative sites pursuant to Minn. Stat. § 216E.04, subd. 2(8), and as specified in Minn. R. 7850.2800 to 7850.3900.²¹⁰ Otter Tail selected the proposed Project site based on a variety of factors, including proximity to existing electric transmission infrastructure, sufficient solar resource, sufficient land control, consistency with local land uses, minimal impact to natural and cultural resources, and minimal impacts to prime farmland.²¹¹ The proposed Project site was identified based on these factors, and no specific alternative sites for the Project were considered.²¹²

H. Use of Existing Large Electric Power Generations.

186. Minnesota law requires consideration of the use of existing LEPGP.²¹³

187. The Project will be immediately adjacent to Otter Tail's Solway Combustion Turbine Generating Station that has been operating in the area since 2003.²¹⁴ The Project is needed, in part, to fulfill commitments made in Otter Tail's 2023-2027 integrated resource plan for solar energy production and will aid in meeting the needs of Otter Tail's customers.²¹⁵

²⁰⁶ Ex. EERA-7 at 87 (EA).

²⁰⁷ Ex. EERA-7 at 87 (EA).

²⁰⁸ Ex. EERA-7 at 87-88 (EA); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

²⁰⁹ Minn. R. 7850.4100, subp. G.

²¹⁰ Ex. OTPC-4 at 18 (Application).

²¹¹ Ex. OTPC-4 at 13 (Application).

²¹² Ex. OTPC-4 at 18 (Application).

²¹³ Minn. R. 7850.4100(I).

²¹⁴ Ex. EERA-7 at 40 (EA).

²¹⁵ Ex. EERA-5 at 1 (EA Scoping Decision).

188. The Project will interconnect to the electrical transmission grid through a short aboveground 115 kV gen-tie line that will run from the Project substation to the existing Solway Combustion Turbine Generating Station.²¹⁶

189. The Project makes fair use of an existing power plant site and existing transmission infrastructure.²¹⁷

I. Use of Existing Rights-of-Way.

190. Minnesota law requires consideration of the use of existing ROW.²¹⁸ EERA concluded that this factor does not apply because the factor is intended specifically for routing permit projects.²¹⁹

191. The Project will interconnect at the Solway Combustion Turbine Generating Station and utilize Otter Tail's existing interconnection rights, through a surplus interconnection.²²⁰

J. Electrical System Reliability.

192. Minnesota law requires consideration of electrical system reliability.²²¹

193. Otter Tail will select solar panel modules for the Project that are designed to withstand weather events typically experienced in the area.²²² The Project is anticipated to maintain or improve the reliability of the electrical system.²²³

K. Costs of Constructing, Operating, and Maintaining the Facility.

194. Minnesota law requires consideration of the costs of constructing, operating, and maintaining a facility which are dependent on design and route.²²⁴ EERA concluded that this factor does not apply because the design of the proposed Project is the only design under consideration.²²⁵ Although only one site is proposed, the record addresses the statutory design considerations.

195. Otter Tail estimates the total cost to construct the Project to be in the range of \$70 to \$100 million. Project cost components include planning and permitting, acquisition and downstream permits, design, procurement, construction, operation, and

²¹⁶ Ex. EERA-7 at 15 (EA).

²¹⁷ See Ex. EERA-7 at 13 & 38–40 (EA).

²¹⁸ Minn. R. 7850.4100(H) and (J).

²¹⁹ Ex. EERA-7 at 10 (EA).

²²⁰ Ex. EERA-7 at 91 (EA).

²²¹ Minn. R. 7850.4100(K).

²²² Ex. EERA-7 at 90 (EA).

²²³ Ex. EERA-7 at 10 (EA).

²²⁴ Minn. Stat. § 216E.03, subd. 7; Minn. R. 7850.4100, Item L.

²²⁵ Ex. EERA-7 at 10 (EA).

decommissioning. Actual costs will depend on final material, labor costs, and salvage value from decommissioning.²²⁶

L. Adverse Human and Natural Environmental Effects that Cannot be Avoided.

196. Minnesota law requires consideration of the adverse human and natural environmental effects that cannot be avoided.²²⁷ Resource impacts are unavoidable when an impact cannot be avoided even with mitigation strategies.²²⁸

197. As discussed above, most of the unavoidable impacts are associated with construction and therefore temporary. Unavoidable adverse effects associated with construction of the Project (in some instances a specific phase of construction) would last through construction and include:

- Fugitive dust;
- Noise disturbance to nearby residents and recreationalists;
- Visual disturbance to nearby residents and recreationalists;
- Soil compaction and erosion;
- Vegetative clearing (loss of shelter belts);
- Disturbance and temporary displacement of wildlife, as well as direct impacts to wildlife inadvertently struck or crushed;
- Minor amounts of marginal habitat loss;
- Possible traffic delays; and
- Minor GHG emissions from construction equipment and workers commuting.²²⁹

198. Unavoidable adverse impacts associated with the operation would last for the life of the Project, and could include:

- Visual impacts of the Project;
- Cultural impacts due to a change in the sense of place for local residents;

²²⁶ Ex. EERA-7 at 10 (EA).

²²⁷ Minn. Stat. § 216E.03, subd. 7(b)(6); Minn. R. 7850.4100, Item M.

²²⁸ Ex. EERA-7 at 91 (EA).

²²⁹ Ex. EERA-7 at 91 (EA).

- Loss of land for agricultural purposes;
- Injury or death of birds that collide with PV panels; and
- Injury or death of birds and mammals from fencing.²³⁰

199. As discussed in detail above, the unavoidable impacts can be mitigated, and the DSP conditions will mitigate the unavoidable adverse impacts to the extent possible.

M. Irreversible and Irretrievable Commitments of Resources.

200. Minnesota law requires consideration of the irreversible and irretrievable commitments of resources that are necessary for the Project.²³¹ Resource commitments are irreversible when it is impossible or very difficult to redirect that resource to a different future use; an irretrievable commitment of resources means the resource is not recoverable for later use by future generations.²³²

201. Irreversible and irretrievable resource commitments are primarily related to Project construction, including the use of water, aggregate, hydrocarbons, steel, concrete, wood, and other consumable resources. Some, like fossil fuel use, are irretrievable. Others, like water use, are irreversible. Other resources might be recyclable in part; for example, the raw materials used to construct PV panels would be an irretrievable commitment of resources, excluding those materials that may be recycled at the end of the panels' useful life. The commitment of labor and fiscal resources to develop, construct, and operate the Project is considered irretrievable.²³³

202. The irreversible and irretrievable commitments of resources are typical for a solar project, and as discussed above, the DSP addresses the irreversible and irretrievable commitments of resources with permit conditions, to the extent possible.

XI. SITE PERMIT CONDITIONS

203. The Commission's sample Site Permit includes proposed permit conditions, many of which have been discussed above. The conditions apply to site preparation, construction, cleanup, restoration, operation, maintenance, abandonment, decommissioning, and other aspects of the Project.

204. The Applicant opined that DSP Special Condition 5.1, is not necessary because the standard condition on noise in Section 4.3.7 of the DSP sufficiently addresses Project noise. The Applicant continued that a separate special condition is not warranted here because the Project alone will comply with the nighttime noise standard of 50 dBA L50 and, by its nature as a surplus interconnection, operation of the quieter

²³⁰ Ex. EERA-7 at 91 (EA).

²³¹ Minn. Stat. § 216E.03, subd. 7(b)(11); Minn. R. 7850.4100, Item N.

²³² Ex. EERA-7 at 91 (EA).

²³³ Ex. EERA-7 at 92 (EA).

solar Project would offset generation from the louder combustion turbine.²³⁴ The EERA maintained its recommendation for Special Condition 5.1 due to the lack of noise modeling for the Project but revised as follows:

5.1 Noise Monitoring

The Permittee shall complete noise monitoring if any residents report or file a complaint with respect to project noise. Any additional noise monitoring shall be coordinated with Commission staff and the monitoring protocol shall be approved by Commission staff before implementation. Noise monitoring results shall be provided to Commission staff. If any violations of the state noise standard are identified, the Permittee will be responsible for the implementation of any mitigation measures necessary to meet the state noise standard.²³⁵

205. The record supports inclusion of the EERA's Special Condition 5.1, as revised.

206. DSP Special Condition 5.2 is no longer needed because Otter Tail updated the Project design to remove the southwestern solar array from the Project Footprint, avoiding any potential impacts to the Great Lakes gas pipeline.²³⁶ The record does not support the inclusion of DSP Special Condition 5.2 in the Site Permit.

207. Special Condition 5.3 requires a Phase I archaeological Survey for areas within the Project identified as possessing high archaeological potential, and requires that the Permittee provide the survey results to the SHPO.²³⁷ Otter Tail completed the Phase I cultural resources survey and provided the results to the SHPO on November 26, 2024.²³⁸ SHPO reviewed the updated Phase I cultural resources survey report and in a March 21, 2025, letter concurred that "no significant archaeological sites will be affected by this project and that there are no properties listed in the National or State Register of Historic Places, or within the Historic Sites Network, that will be affected by this project."²³⁹ Accordingly, this condition has already been met and no additional consultation is required.

208. The Applicant asserts that due to ambiguity regarding which section of the DNR's Wolf Management webpage applies to the Project, it proposes the following revisions to Special Condition 5.5 of the DSP:

5.5 Gray Wolf

²³⁴ Otter Tail's Response to Public Hearing Comments at 2 (June 6, 2025) (eDocket No. [20256-219676-01](#)).

²³⁵ EERA Response Comments at 2 (June 13, 2025) (eDocket No. [20256-219893-01](#)).

²³⁶ See Ex. OTPC-7 at 8:15-18 (Direct Testimony of Preston Riewer with Schedules A-F); EERA Hearing Comments (May 27, 2025) (eDocket No. [20255-219263-01](#)); Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

²³⁷ Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

²³⁸ See Ex. OTPC-7 at 5:7-21 (Direct Testimony of Preston Riewer with Schedules A-F).

²³⁹ Ex. OTPC-7 at 5:7-21 (Direct Testimony of Preston Riewer with Schedules A-F).

The Permittee shall ~~comply with DNR wolf management guidance~~ notify the U.S. Fish and Wildlife Service if there is observed gray wolf activity during project construction that could indicate a den or rendezvous site in proximity.²⁴⁰

209. Otter Tail's proposed modification is not necessary because the EERA's Special Condition is not ambiguous and the Applicant is encouraged to consult with DNR to determine what wolf management guidance applies to the Project.²⁴¹ DNR is committed to ensuring the long-term survival of the wolf in Minnesota.²⁴² Special Condition 5.5 as originally proposed by the EERA is reasonable and the record supports its conclusion in the Site Permit.

210. DSP Special Condition 5.4 would require the Applicant to comply with U.S. Fish and Wildlife Service guidance and requirements in effect regarding NLEB, including tree clearing restrictions. DSP Special Condition 5.6 would require consultation with the USFWS if a bald eagle nest is identified for removal construction of the Project.²⁴³ These proposed site permit conditions are reasonable, and the record supports their inclusion in the Site Permit.

211. DNR recommended special permit conditions for facility lighting, dust control, wildlife friendly erosion control, Northern Long-eared Bat (NLEB) protections, and a VMP.²⁴⁴ Though the Applicant and DNR disagree about the appropriate fence height, the Applicant does not object to the inclusion of these conditions.²⁴⁵ DNR's proposed conditions are reasonable and the record supports their inclusion in the Site Permit.

XII. NOTICE

212. Minnesota statutes and rules require an applicant to provide certain notice to the public and local governments before and during the Application process.²⁴⁶ Otter Tail provided notices to the public and local governments in satisfaction of Minnesota statutory and rule requirements.²⁴⁷

213. Minnesota statutes and rules also require the Commission and EERA to provide certain notice to the public throughout the site permit application process.²⁴⁸ The

²⁴⁰ Ex. OTPC-7 at 8-9:22-3(Direct Testimony of Preston Riewer with Schedules A-F); Ex. EERA-7 at Appendix C (Draft Site Permit).

²⁴¹ See Ex. EERA-7 at 32 (EA).

²⁴² Ex. EERA-7 at 86 (EA);

²⁴³ Ex. EERA-7 at Appendix C – Draft Site Permit (EA).

²⁴⁴ DNR Hearing Comments (May 30, 2025) (eDocket No. [20255-219435-01](#)).

²⁴⁵ Otter Tail's Response to Public Hearing Comments at 4-5 (June 6, 2025) (eDocket No. [20256-219676-01](#)).

²⁴⁶ Minn. Stat. § 216E.03, subds. 3a, 4; Minn. R. 7850.3300; Minn. R. 7850.2100, subps. 2, 4.

²⁴⁷ Ex. OTPC-1 (Notice of Intent to Submit a Site Permit Application Under Alternative Review Process); Ex. OTPC-2 (Project Notice Under 7850.2100); Ex. OTPC-6 (Confirmation of Notice).

²⁴⁸ Minn. Stat. § 216E.03, subds. 4, 5, 6, 10; Minn. R. 7850.3800; Minn. R. 7850.3300; Minn. R. 7850.2100, subps. 2, 4.

Commission and EERA provided the notices in satisfaction of Minnesota statutes and rules.²⁴⁹

XIII. COMPLETENESS OF EA

214. The EA process is the alternative environmental review approved by the EQB for LEPGPs. 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.²⁵⁰

215. Otter Tail provided a limited number of corrections and clarifications related to the EA, and those clarifications are supported by the record.²⁵¹

216. The evidence in the record demonstrates that the EA is complete 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.²⁵²

CONCLUSIONS OF LAW

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

2. The Commission and the Administrative Law Judge have jurisdiction over the Application for a site permit for the up to 66 MW proposed Project pursuant to Minn. Stat. §§ 216E.02 and 216E.03 (2023).

3. The Commission accepted the Application as substantially complete on January 28, 2025.²⁵³

4. Otter Tail has substantially complied with the procedural requirements of Minn. Stat. ch. 216E (2023) and Minn. R. ch. 7850.

5. The Commission has substantially complied with the procedural requirements of Minn. Stat. ch. 216E (2023) and Minn. R. ch. 7850.

6. EERA has conducted an appropriate environmental analysis of the Project for purposes of the Site Permit proceeding pursuant to Minn. R. 7850.3700.

²⁴⁹ Ex. PUC-1 (Notice of Comment Period on Application Completeness); Ex. PUC-2 (Notice of Public Information and EA Scoping Meetings); Ex. PUC-5 (Notice of Public Hearings and Availability of EA); PUC-6 (Affidavit of Publication of Notice of Public Information and Scoping Meetings); Ex. PUC-7 (Affidavit of Publication of Notice of Public Hearings and Availability of EA); Ex. EERA-2 (Notice of Public Information and EA Scoping Meetings); Notice of EA Scoping Decision (January 31, 2025) (eDocket No. [20251-214752-02](#)); Ex. EERA-6 (Notice of Public Hearings and Availability of EA); Ex. EERA-8 (Notice of EA to Permitting Agencies and THPOs); Ex. EERA-9 (Certificate of Mailing of EA to Public Library); Ex. EERA-10 (Notification of EA Availability, EQB Monitor).

²⁵⁰ Minn. R. 4410.4400, subp. 3; Minn. R. 7850.3900, subp. 2.

²⁵¹ Ex. OTPC-7 at 6-7:23-16 (Direct Testimony of Preston Riewer with Schedules A-F).

²⁵² Ex. EERA-5 (EA Scoping Decision).

²⁵³ Ex. PUC-3 (Order).

7. Public hearings were held on May 14, 2025 (in-person), and May 15, 2025 (remote-access). Proper notice of the public hearings was provided, and the public was given an opportunity to speak at the hearings and to submit written comments.

8. The EA prepared for the Project and the record created at the public hearing address the issues identified in the EA scoping decision.

9. The Commission has the authority under Minn. Stat. § 216E.03 (2023) to place conditions in a LEPGP site permit.

10. The DSP, as revised by EERA staff, DNR, and Otter Tail, contains important mitigation measures and other reasonable conditions.

11. It is reasonable to amend the DSP to include the changes proposed by EERA staff in the EA and the subsequent changes proposed by Otter Tail as described above.

12. The record in this proceeding demonstrates that Otter Tail has satisfied the criteria for a Site Permit as set forth in Minn. Stat. § 216E.03 (2023) and Minn. R. ch. 7850 and all other applicable legal requirements.

13. The Project, with the permit conditions discussed above, satisfies the Site Permit criteria for an LEPGP in Minn. Stat. § 216E.03 (2023) and meets all other applicable legal requirements.

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


15. Any of the foregoing conclusions of law which are more properly designated findings of fact are hereby adopted as such.

RECOMMENDATIONS

Based upon these Conclusions, the Administrative Law Judge recommends that the Commission issue a Site Permit to Otter Tail to construct and operate the Project and associated facilities in Beltrami County, Minnesota, and that the permit include the draft permit conditions amended as set forth above.

THIS REPORT IS NOT AN ORDER AND NO AUTHORITY IS GRANTED HEREIN. THE MINNESOTA PUBLIC UTILITIES COMMISSION WILL ISSUE THE ORDER THAT MAY ADOPT OR DIFFER FROM THE PRECEDING RECOMMENDATION.

Dated: July 18, 2025


SUZANNE TODNEM
Administrative Law Judge

July 18, 2025

See Attached Service List

Re: *In the Matter of the Application of Otter Tail Power Company for a Site Permit for the up to 66 MW Solway Solar Project in Beltrami County, Minnesota*

**OAH 23-2500-40576
MPUC E017/GS-24-309**

To All Persons on the Attached Service List:

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

If you have any questions, please contact me at (651) 361-7970, cara.hunter@state.mn.us, or via facsimile at (651) 539-0310.

Sincerely,



CARA HUNTER
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 Otter Tail Power Company for a Site Permit for the up to 66 MW Solway Solar Project in Beltrami County, Minnesota	OAH Docket No.: 23-2500-40576 MPUC E017/GS-24-309
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On July 18, 2025, a true and correct copy of the **FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDATIONS** was served by eService, and United States mail, (in the manner indicated on the attached service list) to the following individuals:

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
1	Christina	Brusven	cbrusven@fredlaw.com	Fredrikson Byron		60 S 6th St Ste 1500 Minneapolis MN, 55402- 4400 United States	Electronic Service		No	24- 309Official CC Service List
2	Mike	Bull	mike.bull@state.mn.us		Public Utilities Commission	121 7th Place East, Suite 350 St. Paul MN, 55101 United States	Electronic Service		No	24- 309Official CC Service List
3	Generic	Commerce Attorneys	commerce.attorneys@ag.state.mn.us		Office of the Attorney General - Department of Commerce	445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States	Electronic Service		No	24- 309Official CC Service List
4	Sharon	Ferguson	sharon.ferguson@state.mn.us		Department of Commerce	85 7th Place E Ste 280 Saint Paul MN, 55101- 2198 United States	Electronic Service		No	24- 309Official CC Service List
5	Logan	Hicks	logan.m.hicks@state.mn.us		Department of Commerce	85 7th Place East Suite 280 Saint Paul MN, 55101 United States	Electronic Service		No	24- 309Official CC Service List
6	Amrit	Hundal	amrit.hundal@ag.state.mn.us		Office of the Attorney General - Department of Commerce		Electronic Service		No	24- 309Official CC Service List
7	Raymond	Kirsch	raymond.kirsch@state.mn.us		Department of Commerce	85 7th Place E Ste 500 St. Paul MN, 55101 United States	Electronic Service		No	24- 309Official CC Service List
8	Tessa	Kothlow	tessa.kothlow@state.mn.us		Department of Commerce		Electronic Service		No	24- 309Official CC Service List
9	Molly	Leisen	mleisen@fredlaw.com	Fredrikson & Byron P.A.		60 South Sixth Street Suite 1500 Minneapolis MN, 55402 United States	Electronic Service		No	24- 309Official CC Service List
10	Matthew	Olsen	molsen@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	24- 309Official CC Service List
11	Cezar	Panait	cezar.panait@state.mn.us		Public Utilities Commission	121 7th Place East Suite 350 St. Paul MN, 55101 United States	Electronic Service		No	24- 309Official CC Service List

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
12	Kevin	Pranis	kpranis@liunagroc.com	Laborers' District Council of MN and ND		81 E Little Canada Road St. Paul MN, 55117 United States	Electronic Service		No	24-309Official CC Service List
13	Generic Notice	Regulatory	regulatory_filing_coordinators@otpc.com	Otter Tail Power Company		215 S. Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	24-309Official CC Service List
14	Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States	Electronic Service		No	24-309Official CC Service List
15	Michael	Riewer	mriewer@otpc.com	Otter Tail Power Company		PO Box 4496 Fergus Falls MN, 56538-0496 United States	Electronic Service		No	24-309Official CC Service List
16	Preston	Riewer	priewer@otpc.com	Otter Tail Power Company		215 South Cascade St. Fergus Falls MN, 56537 United States	Electronic Service		No	24-309Official CC Service List
17	Nathaniel	Runke	nrunke@local49.org			611 28th St. NW Rochester MN, 55901 United States	Electronic Service		No	24-309Official CC Service List
18	Janet	Shaddix Eling	jshaddix@janetshaddix.com	Shaddix And Associates		7400 Lyndale Ave S Ste 190 Richfield MN, 55423 United States	Electronic Service		Yes	24-309Official CC Service List
19	Suzanne	Todnem	suzanne.todnem@state.mn.us		Office of Administrative Hearings	600 Robert St N PO Box 64620 St. Paul MN, 55164 United States	Electronic Service		Yes	24-309Official CC Service List
20	Kim	Ward	kaward@otpc.com	Otter Tail Power Company		215 South Cascade Fergus Falls MN, 56537 United States	Electronic Service		No	24-309Official CC Service List