

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

In the Matter of Aurora Distributed Solar,
LLC’s Application for a Site Permit to
Construct a 100 MW Distributed Solar
Energy Project at Multiple Facilities in
Minnesota

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In the Matter of the Application of Aurora
Distributed Solar L.L.C. for a Site Permit
to Construct a 100 MW Distributed Solar
Energy Project at Multiple Facilities in
Minnesota

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

This matter was originally assigned to Administrative Law Judge Barbara L. Neilson, and then reassigned to Administrative Law Judge Barbara J. Case. The matter involves the Site Permit application of Aurora Distributed Solar L.L.C. (Aurora), which includes construction of multiple photovoltaic (PV) solar-energy generating systems and associated facilities totaling up to 100 megawatts (MW) at up to 24 individual solar facilities, ranging in size from 1.5 MW to 10 MW, in 16 counties throughout southern and central Minnesota (the Project). The Minnesota Public Utilities Commission (Commission) requested that the assigned Administrative Law Judge prepare Findings of Fact, Conclusions of Law, and a Recommendation on whether the Project meets the Site Permitting criteria set forth in chapter 216E of the Minnesota Statutes (2014) and chapter 7850 of the Minnesota Rules (2013).¹

Administrative Law Judge Case presided over the public hearings on the Site Permit application for the Project held between February 9 and 12, 2015, at the following locations: February 9, 2015, in Chisago City, Minnesota; February 10, 2015, in Pipestone, Minnesota; February 10, 2015, in Montevideo, Minnesota; February 11, 2015, in Faribault, Minnesota; February 12, 2015, in Montrose, Minnesota; and February 12, 2015, in Paynesville, Minnesota. Post-hearing submissions were filed by Aurora and the Minnesota Department of Commerce-Energy Environmental Review Analysis division (DOC-EERA) in accordance with the First Prehearing Order issued by the Administrative Law Judge.² The Office of Administrative Hearings (OAH) record closed on March 10, 2015, when the last post-hearing submission was filed by the DOC-EERA.

¹ ORDER ACCEPTING SITE PERMIT APPLICATION AS COMPLETE, EXTENDING TIME FOR FINAL DECISION, AND REFERRING APPLICATION TO THE OFFICE OF ADMINISTRATIVE HEARINGS (September 24, 2014) (eDocket No. 20149-103265-01).

² FIRST PREHEARING ORDER (November 17, 2014) (eDocket No. 201411-104706-01).

Nathan Franzen, Director of Solar, and Patrick Smith, Director of Environmental Planning, Geronimo Wind Energy, L.L.C. d/b/a Geronimo L.L.C. (Geronimo)³; and Jeremy P. Duehr, Fredrikson & Bryon, P.A., attorney for Aurora, appeared at the public hearings on behalf of Aurora.

Suzanne Steinhauer, Department of Commerce Energy Environmental Review Manager, appeared at the public hearings on behalf of the DOC-EERA.

Cezar Panait, Public Utilities Commission Energy Facilities Planner, and Tracy Smetana, Public Advisor with the Consumer Affairs Office, appeared at the public hearings on behalf of the Commission.

STATEMENT OF ISSUE

Has Aurora satisfied the factors set forth within Minn. Stat. § 216E.03, subd. 7 and Minn. R. 7850.4100 (2013), entitling it to a Site Permit for the Project?

SUMMARY OF CONCLUSIONS AND RECOMMENDATION

The Administrative Law Judge concludes that Aurora has satisfied the applicable legal requirements and, accordingly, recommends the Commission grant a Site Permit for the Project, subject to the conditions discussed below.

Based upon the record created in this proceeding, the Administrative Law Judge makes the following:

FINDINGS OF FACT

I. The Applicant

1. Aurora Distributed Solar L.L.C. is a Delaware limited liability company authorized to do business in Minnesota. Aurora is a wholly-owned subsidiary of Enel Kansas, L.L.C. Enel Kansas, L.L.C is a wholly-owned subsidiary of Enel Green Power North America, Inc. (EGPNA). EGPNA is the North American wholly-owned subsidiary of Enel Green Power (EGP), an international corporation.⁴

2. Geronimo Wind Energy, LLC, d/b/a Geronimo Energy, LLC, is a Minnesota limited liability company that develops and builds renewable energy projects throughout the United States.⁵

3. The Project is being developed via a strategic partnership between EGPNA and Geronimo. EGPNA directs development, construction, financing, and

³ Mr. Franzen testified on behalf of Aurora and Geronimo.

⁴ Exhibit (Ex.) 2 at 3 (Application).

⁵ Ex. 2 at 5 (Application).

operations for the Project.⁶ With direction from EGPNA, Geronimo provides development services to Aurora.⁷

4. Aurora filed the Site Permit application and is expected to own the Project once commercial operation begins.⁸ In order to satisfy the requirements of an investment tax credit, a federal tax credit available to taxpayers via the U.S. Internal Revenue Code, Aurora organized a separate limited liability company (commonly referred to as “special purpose vehicle” or SPV) for each solar facility. The facilities will likely achieve commercial operation on a staggered basis, so each facility will achieve commercial operation independently of the others for purposes of the investment tax credit.⁹

5. The SPVs and the facility to which they relate are listed below.

Name	Related Solar Site
Albany Solar, LLC	Albany
Annandale Solar, LLC	Annandale
Atwater Solar, LLC	Atwater
Brooten Solar, LLC	Brooten
Chisago Solar, LLC	Chisago
Dodge Center Distributed Solar, LLC	Dodge
Eastwood Solar, LLC	Eastwood
Fiesta City Solar, LLC	Fiesta City
Hastings Solar, LLC	Hastings
Lake Emily Solar, LLC	Lake Emily
Lake Pulaski Solar, LLC	Lake Pulaski
Lawrence Creek Solar, LLC	Lawrence Creek
Lester Prairie Solar, LLC	Lester Prairie
Mayhew Lake Solar, LLC	Mayhew Lake
Montrose Solar, LLC	Montrose
Paynesville Solar, LLC	Paynesville
Pine Island Distributed Solar, LLC	Pine Island
Pipestone Solar, LLC	Pipestone

⁶ Ex. 2 at 5 (Application).

⁷ Ex. 2 at 3 (Application).

⁸ Ex. 2 at 5 (Application).

⁹ *Id.*

Name	Related Solar Site
Scandia Solar, LLC	Scandia
Waseca Solar, LLC	Waseca
West Faribault Solar, LLC	West Faribault
West Waconia Solar, LLC	West Waconia
Wyoming Solar, LLC	Wyoming
Zumbrota Solar, LLC	Zumbrota

II. General Project Description

6. The Project consists of distributed PV power plants to be located at up to 24 locations in Benton, Blue Earth, Carver, Chippewa, Chisago, Dodge, Goodhue, Kandiyohi, Le Sueur, McLeod, Pipestone, Rice, Stearns, Waseca, Washington, and Wright Counties.¹⁰ The following table summarizes the Project's proposed locations:¹¹

Facility	County	Section-Township-Range	Facility Land Control (acres)	Preliminary Development Area (acres)	Anticipated MW-AC
Albany	Stearns	Sections 8 & 17, T 125N, R 31 W	230.6	107.4	10.0
Annandale	Wright	Section 32, T 121N, R 27W	70.6	70.6	6.0
Atwater	Kandiyohi	Section 1, T 119N, R 33W	40.1	36.3	4.0
Brooten	Stearns	Section 31, T 124N, R 35W	13.0	13.0	1.5
Chisago	Chisago	Section 12, T 34N, R 21W	62.4	60.6	7.5
Dodge Center	Dodge	Section 32, T 107N, R 17W	68.5	60.0	6.5

¹⁰ Ex. 2 at 14 (Application).

¹¹ Ex. 2 at 14, 17 (Application); Ex. 26 (Corrected Information to Supplement the Application).

Facility	County	Section-Township-Range	Facility Land Control (acres)	Preliminary Development Area (acres)	Anticipated MW-AC
Eastwood	Blue Earth	Section 14, T 108N, R 66W	49.7	49.7	5.5
Fiesta City	Chippewa	Section 9, T 117N, R 40 W	25.6	25.6	2.5
Hastings	Washington	Section 8, T 26N, R 20W	40.6	40.6	5.0
Lake Emily	Le Sueur	Section 24, T 110N, R 26W	46.9	42.4	5.0
Lake Pulaski	Wright	Section 15, T 120N, R 25W	75.8	63.2	8.5
Lawrence Creek	Chisago	Section 27, T 34N, R 19W	74.3	39.4	4.0
Lester Prairie	McLeod	Section 25, T 117N, R 27W	29.9	26.0	3.5
Mayhew Lake	Benton	Section 12, T 36N, R 31W	36.0	21.8	4.0
Montrose	Wright	Section 2, T 118N, R 26W	37.7	34.8	4.0
Paynesville	Stearns	Sections 8 & 9, T 122N, R 32W	223.6	108.4	10.0
Pine Island	Goodhue	Section 31, T 109N, R 15W	46.9	42.2	4.0
Pipestone	Pipestone	Section 11, T106N, R 46W	15.8	14.7	2.0
Scandia	Chisago	Section 35, T 33N, R 20W	24.4	23.3	2.5

Facility	County	Section-Township-Range	Facility Land Control (acres)	Preliminary Development Area (acres)	Anticipated MW-AC
Waseca	Waseca	Section 12, T 17N, R 23W	89.2	85.2	10.0
West Faribault	Rice	Section 2, T 109N, R 21W	85.5	59.4	5.5
West Waconia	Carver	Section 1, T 115N, R 26W	75.7	78.1	8.5
Wyoming	Chisago	Section 32, T 33N, R 21W	67.3	62.0	7.0
Zumbrota	Goodhue	Section 25, T 110N, R 16W	35.6	31.9	3.5

7. The land under Aurora’s control at each facility was selected based on the availability of land, proximity to Northern States Power Company, d/b/a Xcel Energy (Xcel Energy), distribution substations, and limited environmental impacts.¹²

8. Each facility will be comprised of PV modules mounted on linear axis tracking systems and centralized inverters. Each facility will also include electrical cables, conduit, electrical cabinets, switchgears, step-up transformers, supervisory control and data acquisition (SCADA) systems, metering equipment, operations and maintenance (O&M) areas, and internal access roads. A perimeter security and safety fence will surround the Project components with access to the facility through a central gate.¹³

9. The PV modules will have approximate dimensions of 4 to 6.5 feet long, 2 to 3.5 feet wide, and 1 to 2 inches thick, and will be grouped into arrays.¹⁴ When the sun is directly overhead, the panels will be situated at a zero degree angle (level to the ground). The panels will follow the sun from approximately 45 degrees east to 45 degrees west throughout the course of the day. At zero degrees, the panels will be about four to six feet off the ground. When at 45 degrees, tilted to the highest position, the top of the panels will be approximately eight to ten feet off the ground.¹⁵

¹² Ex. 2 at 13 (Application).

¹³ Ex. 2 at 21 (Application).

¹⁴ *Id.*

¹⁵ Ex. 2 at 23 (Application).

10. The Project will not require transmission interconnection. Each facility will connect directly to the electrical distribution system, similar to a home or business. Xcel Energy will provide a service line (through an above-ground or below-ground distribution feeder) to the points of interconnection, located within the facility land control area.¹⁶

11. Aurora anticipates construction of the entire Project will take approximately one year to complete. Construction may begin at some facilities in 2015 to ensure the entire Project is in service by December 31, 2016.¹⁷

12. Total construction costs for the Project are estimated to be approximately \$247 million. Operating costs for the Project are estimated to be approximately \$2.3 million on an annual basis, including labor, materials, and property taxes.¹⁸

III. Certificate of Need Exemption and Related Procedural Background

13. A Certificate of Need (CON) is required for all “large energy facilities,” as defined in Minn. Stat. § 216B.2421, subd. 2(1) (2014), unless the facility falls within a statutory exemption from the CON requirements. Because the Project is a generating plant larger than 50 MW, it meets the definition of a large energy facility and normally would require a CON prior to the issuance of a Site Permit and construction. However, the Project is exempt from CON requirements because it was selected by the Commission through a competitive resource approval process to meet Xcel Energy’s electricity generation needs, and therefore falls within the CON exemption found in Minn. Stat. § 216B.2422, subd. 5(b) (2014).¹⁹ At the time of the Site Permit application, Aurora was negotiating a power purchase agreement (PPA) with Xcel Energy for the full output of the Project.²⁰

14. On February 5, 2015, the Commission issued an Order selecting Geronimo’s proposal for the Project as an appropriate resource to fit the need of Xcel Energy, and approving the PPA between Aurora and Xcel.²¹

IV. Site Permit Application and Related Procedural Background

15. On June 18, 2014, in accordance with Minn. R. 7850.2800, subp. 2, Aurora filed a letter with the Commission noticing its intent to submit a Site Permit

¹⁶ Ex. 2 at 25 (Application).

¹⁷ Ex. 2 at 8 (Application).

¹⁸ Ex. 2 at 19 (Application).

¹⁹ *In the Matter of the Petition of N. States Power Co., d/b/a Xcel Energy for Approval of Competitive Resource Acquisition Proposal and Certificate of Need*, PUC Docket No. E-002/CN-12-1240, ORDER DIRECTING XCEL TO NEGOTIATE DRAFT AGREEMENTS WITH SELECTED PARTIES (May 23, 2014).

²⁰ Ex. 36 at 8 (Franzen Direct).

²¹ *In the Matter of the Petition of N. States Power Co., d/b/a Xcel Energy, for Approval of Competitive Resource Acquisition Proposal and Certificate of Need*, PUC Docket No. E-002/CN-12-1240, ORDER APPROVING POWER PURCHASE AGREEMENT WITH CALPINE, APPROVING POWER PURCHASE AGREEMENT WITH GERONIMO, AND APPROVING PRICE TERMS WITH XCEL (February 5, 2015).

application for the Project under the alternative permitting procedures set forth in Minn. Stat. § 216E.04; Minn. R. 7850.2800-.3900.²²

16. On June 27, 2014, Aurora submitted information to the DOC-EERA requesting a size determination for the Project. On July 29, 2014, the Department informed Aurora that, based on the information provided, the Project was a 100 MW large electric power generating plant and subject to the Commission's siting authority under Minn. Stat. ch. 216E.²³

17. On July 9, 2014, Aurora filed an application with the Commission for a Site Permit to construct multiple PV solar-energy generating systems and associated facilities totaling 100 MW. Aurora proposed to build up to 24 individual solar facilities ranging in size from 1.5 MW to 10 MW in 16 counties throughout southern and central Minnesota.²⁴

18. On July 15, 2014, the Commission issued notice seeking comments on the completeness of the Site Permit application.²⁵

19. On July 21, 2014, Aurora provided notice and mailed copies of the Site Permit application to government agencies, landowners within the Project area, and persons identified on the general list maintained by the Commission for this purpose in compliance with Minn. R. 7850.2100, .3300.²⁶

20. Aurora also published the application notice in the following press sources: South Washington County Bulletin; Wright County Journal-Press; The McLeod County Chronicle/Glencoe Enterprise; Faribault Daily News; Chisago County Press; West Central Tribune; News-Record; Norwood Young America Times; The Free Press and The Land; Sauk Rapids Herald; Le Sueur News Herald; Waseca County News; Dodge Center Star Herald; Pipestone County Star; and The Montevideo American-News.²⁷

21. On August 6, 2014, Aurora filed supplemental information related to Project cost, design, summary descriptions and illustrations of each proposed facility and future capacity expansions.²⁸

22. A hard copy of the Site Permit application was made available at the following public libraries: Atwater Public Library; Blue Earth County Library; Buckham Memorial Library; Chippewa County Public Library; Chisago Lakes Library; Dodge Center Public Library; Great River Regional Library (Albany, Annandale, Belgrade, Buffalo, Delano, Foley, and Paynesville locations); Le Sueur Public Library; Meinders

²² Ex. 1 (Notice of Intent to File Site Permit Application Pursuant to Alternative Permitting Process).

²³ Ex. 4 at 3 (DOC-EERA Comments and Recommendations on Application Completeness).

²⁴ Ex. 2 at 1 (Application).

²⁵ Ex. 3 (Notice of Comment Period on Application Completeness).

²⁶ Ex. 8 (Affidavit of Publication).

²⁷ *Id.*

²⁸ Ex. 5 (Reply Comments and Facility Fact Sheets).

Community Library; North Branch Area Library; Norwood Young America Library; Pleasant Hill Library; Taylors Falls Library; Van Horn Public Library; Waseca Public Library; Winsted Public Library; Wyoming Area Giese Memorial Library; and Zumbrota Public Library.²⁹

23. On August 25 and 27, 2014, the DOC-EERA mailed a Local Government Scoping Questionnaire related to the Project to local governments and regional development commissions.³⁰

24. On September 24, 2014, the Commission issued an Order finding the application complete under Minn. R. 7850.3100, .3200, authorizing DOC-EERA staff to process the application under the alternative permitting process in Minn. R. 7850.2800-.3900, extending the timeframe for Commission review and final decision under Minn. R. 7850.2900, subp. 1 from six months to nine months, and referring the matter to OAH.³¹ The Commission also concurred with the DOC-EERA's recommendation that it take no action on an advisory task force.³²

25. On December 16, 2014, Aurora filed materials supplementing and correcting, as necessary, information contained in the application pertaining to the Paynesville and Pine Island Facilities.³³

26. On December 23, 2014, the Commission staff filed a draft Site Permit (Site Permit Template).³⁴

V. Environmental Assessment Scoping

27. The scoping process is the first step in developing an environmental assessment (EA). The DOC-EERA is required to "provide the public with an opportunity to participate in the development of the scope of the environmental assessment by holding a public meeting and by soliciting public comments."³⁵ During the scoping process, alternative sites may be suggested for evaluation in the EA.³⁶ The opportunity for persons to suggest alternative sites was limited for the Project because Aurora must contract for the land with a willing seller or lessor,³⁷ and the plan is premised upon proximity to interconnection substations.³⁸

28. On August 22, 2014, the Commission and the DOC-EERA jointly issued a Notice of Public Information and Environmental Assessment Scoping Meetings. A copy

²⁹ Ex. 8 (Affidavit of Publication).

³⁰ Ex. 13 (DOC-EERA Letter Regarding EA Scoping Survey).

³¹ Ex. 15 (Order Accepting Site Permit Application as Complete).

³² *Id.*

³³ Ex. 26 (Corrected Information to Supplement the Application).

³⁴ SITE PERMIT TEMPLATE (Dec. 23, 2014) (eDocket No. 201412-105647-01).

³⁵ Minn. R. 7850.3700, subp. 2 (2013).

³⁶ Minn. R. 7850.3700, subp. 2B (2013).

³⁷ Ex. 31 at 24 (Environmental Assessment).

³⁸ Ex. 2 at 13 (Application).

of the notice was mailed to persons identified on the project list maintained by the Commission for this purpose in compliance with Minn. R. 7850.3500, subp. 1, .2300, subp. 2. The DOC-EERA also sent the notice to designate state agency technical representatives.³⁹

29. Aurora published the Notice of Public Information and Environmental Assessment Scoping Meetings in the following press sources: Chisago County Press; Dodge Center Star Herald; Faribault Daily News; Goodhue News Record; Le Sueur News Herald; Mankato Free Press; The McLeod County Chronicle/Glencoe Enterprise; The Montevideo American-News; Norwood Young America Times; The South Washington County Bulletin; Pipestone County Star; Sauk Rapids Herald; St. Cloud Times; Waseca County News; West Central Tribune; and Wright County Journal-Press.

30. In accordance with Minn. R. 7850.2300, subps. 1-4; .3500, subp. 1, DOC-EERA staff held public meetings on the scope of the EA on the following dates and in the following locations: September 9, 2014, in Montrose and Lindstrom, Minnesota; September 10, 2014, in Marshall, Minnesota; September 16, 2014, in St. Paul and Paynesville, Minnesota; and September 17, 2014, in Faribault, Minnesota.⁴⁰

31. The public comment period on the scope of the EA began on August 22, 2014, and closed on September 30, 2014.⁴¹ Forty-three written comments were received by the end of the scoping comment period. DOC-EERA staff received responses from 30 governmental units.⁴²

32. The scoping comments addressed a variety of topics, including: compatibility with local zoning and planning; input of local governments into siting; appearance and materials used to fence the facilities; impacts on the proposed facilities on property values on adjacent properties; impacts to wildlife, specifically to birds; overall appearance of solar installations and the potential for glare; noise during the construction and operation of the facilities; impacts to agriculture; impacts to surface waters and storm water runoff; and impacts to wetlands.⁴³

33. The Minnesota Department of Natural Resources identified issues related to vegetation management, rare and unique natural resources, and wildlife to be included in the EA.⁴⁴

34. The Minnesota Department of Transportation (MnDOT) stated that it does not consider a solar generating project to be a public utility for transportation purposes and therefore indicated it will not allow Aurora to place connecting lines along trunk highways, although electric lines are permitted to cross trunk highways. MnDOT also

³⁹ Ex. 12 (Notice of Public Information and Scoping Meeting).

⁴⁰ Ex. 24 at 3 (Scoping Decision for Environmental Assessment).

⁴¹ Ex. 12 at 2 (Notice of Public Information and Scoping Meeting).

⁴² *Id.*

⁴³ Ex. 24 at 4 (Scoping Decision for Environmental Assessment).

⁴⁴ Ex. 24 at 4 (Scoping Decision for Environmental Assessment).

pointed out where several proposed locations abut state trunk highways and raised concerns about the placement of access roads, storm water retention pond drainage, and noxious weed control.⁴⁵

35. The Minnesota Department of Agriculture requested the EA identify the potential duration of the land-use conversion from agricultural land at the proposed locations, information on agricultural suitability and productivity of soils, methods or locations that would minimize agricultural impacts, trends for loss of agricultural lands, and impacts of agricultural land conversion to local economies.⁴⁶

36. On October 14, 2014, DOC-EERA staff provided the Commission with a summary of the EA scoping process. The summary indicated that DOC-EERA staff would be recommending that the Scoping Decision for the Project include only those facility locations proposed by Aurora in its Site Permit application for evaluation in the EA. On November 14, 2014, the Commission voted to take no action with respect to the site alternatives to be considered in the EA.⁴⁷

37. The Scoping Decision for the EA was signed by the Department of Commerce on December 4, 2014, and filed with the Commission and made available to the public as provided in Minn. R. 7850.3700, subp. 3, on December 5, 2014.⁴⁸

38. The scope of the EA evaluation is identified as the 24 facility locations proposed by Aurora in the application; no other locations are included. The EA scope also includes an analysis of the potential development area within 2.5 miles of each interconnection substation to which the 24 facility locations would interconnect. The scope of the EA for the Project does not include a no-build alternative; issues related to the Project need, size, type or timing; any site alternative not specifically identified in the Scoping Decision; or the manner in which land owners are compensated for the sites.⁴⁹

VI. Environmental Assessment

39. The EA was filed with the Commission and made available on February 2, 2015.⁵⁰ The EA was prepared in accordance with Minn. R. 7850.3700 and the Scoping Decision.

40. On February 2, 2015, the DOC-EERA mailed a Notice of Environmental Assessment to persons identified on the project contact list, local and regional offices,

⁴⁵ Ex. 19 at 5 (Comments to Commission on Site Alternatives for the EA Scoping).

⁴⁶ *Id.*

⁴⁷ Ex. 19 at 9 (Comments to Commission on Site Alternatives for the EA Scoping); Ex. 24 at 4 (Scoping Decision for Environmental Assessment).

⁴⁸ Ex. 24 at 5 (Scoping Decision for Environmental Assessment).

⁴⁹ *Id.*

⁵⁰ Ex. 31 (Environmental Assessment); Ex. 32 (Notice of Environmental Assessment).

and property owners in compliance with Minn. R. 7850.3700, subd. 6, to the state and federal agency technical representatives.⁵¹

41. On February 2, 2015, pursuant to Minn. R. 7850.3700, subp. 6, the DOC-EERA published a Notice of the Environmental Assessment in the Minnesota Environmental Quality Board (EQB) Monitor.⁵²

42. On February 3, 2015, the DOC-EERA mailed a Notice of Environmental Assessment to the public agencies with authority to permit or approve the proposed Project, and posted the EA to the Commission's Energy Facilities Permitting website in accordance with Minn. R. 7850.3700, subp. 6.⁵³

43. On February 3, 2015, the DOC-EERA sent copies of the Notice of Environmental Assessment to public libraries.⁵⁴

44. The EA evaluated the proposed 24 locations included within the Project.⁵⁵ The EA also analyzed potential development areas within 2.5 miles of each interconnection substation to which the 24 facility locations would interconnect. The EA does not include the no-build alternative; issues related to the Project need, size, type or timing; any site alternative not specifically identified in the Scoping Decision; or the manner in which land owners are compensated for the sites.⁵⁶

VII. Public Hearings on Project and Environmental Assessment

A. Proceedings

45. On November 17, 2014, Administrative Law Judge Barbara L. Neilson issued a First Prehearing Order and, based upon agreement of the parties, set forth dates for public hearings and other events to address whether the Project meets the selection criteria set forth in Minn. Stat. § 216E.03, subd. 7; Minn. R. 7850.4100.⁵⁷

46. On January 6, 2015, pursuant to Minn. Stat. § 216E.03, subd. 6, a Notice of Public Hearing was mailed to those persons whose names are on the project contact list, regional development commissions, counties, organized towns, townships, and incorporated municipalities, and property owners and to state and federal agency technical representatives.⁵⁸

47. Aurora also published notice of the public hearings in the following press sources: Chisago County Press; Dodge Center Star Herald; Faribault Daily News;

⁵¹ Ex. 32 (Notice of Availability of Environmental Assessment).

⁵² Ex. 34 (Notice of EA availability in EQB Monitor).

⁵³ Ex. 32 (Notice of Availability of Environmental Assessment).

⁵⁴ *Id.*

⁵⁵ Ex. 31 at 8 (Environmental Assessment).

⁵⁶ Ex. 31 at 13 (Environmental Assessment).

⁵⁷ Ex. 22 (First Prehearing Order).

⁵⁸ Ex. 28 (Notice of Public Hearing); Ex. 29 (Notice to State Agencies Request for Participation).

Goodhue News Record; Le Sueur News Herald; Mankato Free Press; The McLeod County Chronicle/Glencoe Enterprise; The Montevideo American-News; Norwood Young America Times; The South Washington County Bulletin; Pipestone County Star; Sauk Rapids Herald; St. Cloud Times; Waseca County News; West Central Tribune; and Wright County Journal-Press.⁵⁹

48. On February 4, 2015, the public hearings were reassigned to Administrative Law Judge Barbara J. Case.⁶⁰

49. Administrative Law Judge Barbara J. Case presided over the following public hearings: February 9, 2015, in Chisago City, Minnesota; February 10, 2015, in Pipestone and Montevideo, Minnesota; February 11, 2015, in Faribault, Minnesota; February 12, 2015, in Montrose and Paynesville, Minnesota. At each hearing, the Administrative Law Judge provided an opportunity for members of the public to ask questions or comment on the Project verbally, or to submit questions and comments in writing.

50. Approximately 160 members of the public attended the public hearings. Each hearing continued until all persons who desired to speak had done so. The number of commenters at each of the public hearings ranged from approximately five to 18 speakers. All speakers were afforded a full opportunity to make a statement on the record. Six written comments were offered and received as exhibits at the public hearings.⁶¹

51. Pursuant to Minn. R. 7850.3800, subp. 3, DOC-EERA representative Suzanne Steinhauer attended the public hearings and described the alternative Site Permitting process, the Project, and introduced the EA as well as other relevant documents for the record.

52. Nathan Franzen of Geronimo and Jeremy P. Duehr of Fredrikson & Bryon, P.A., attorney for Aurora, attended the public hearings on behalf of Aurora. Patrick Smith of Geronimo also appeared at the Chisago City public hearing on behalf of Aurora.

53. Cezar Panait, P.E., Regulatory Engineer and Staff Analyst, and Tracy Smetana, Public Advisor with the Consumer Affairs Office, attended the public hearings on behalf of the Commission.

54. Representatives from local governments were present at the public hearings, including representatives from Carver County, Chippewa County, McLeod County, Pipestone County, Rice County, Yellow Medicine County, Wright County,

⁵⁹ Ex. 37 (Affidavit of Publication).

⁶⁰ LETTER (February 4, 2015) (eDocket No. 20152-107049-01).

⁶¹ Ex. C (Paul and Cass Dennison Submission); Ex. D (Jim Morgan Submission); Ex. E (City of Zumbrota Submission); Ex. F (City of Pine Island, Ordinance 127, Second Series); Ex. G (Shawn Smith Submission); Ex. H (Shawn Smith Submission).

Buffalo Township, Kasota Township, Lent Township, Shafer Township, Young America Township, city of Annandale, city of Faribault, city of Monticello, city of Pine Island, and city of Pipestone.

55. Representatives from the MnDNR were present at the Chisago City and Montrose public hearings.⁶²

56. Representatives from the Minnesota Department of Labor and Industry were present at the Chisago City and Faribault public hearings.⁶³

57. Public comments on the Project were accepted by the Administrative Law Judge until February 24, 2015.⁶⁴

58. The public hearing transcripts were filed by the designated court reporter on February 23, 2015.

59. On March 5, 2015, the Chief Administrative Law Judge reassigned the entire case to Administrative Law Judge Barbara J. Case.⁶⁵

B. Summary of Public Hearing Comments

60. Individuals who testified in support of the Project generally focused their comments on the benefits of renewable energy and distributed energy, including the minimal environmental impacts. Some individuals noted the efforts of Aurora to work with and address the concerns of local governments. Steven Jones, City Manager for Montevideo, testified regarding his appreciation for the “fine job” accomplished by Aurora in discussing concerns and providing information to the city.⁶⁶

61. Landowners who may be compensated for the sale or lease of their land for the Project also offered positive testimony regarding Aurora. Brad Nord, resident of Zumbrota, testified that his land was offered for sale on the real estate market for 13 years before being considered for inclusion in the Project, and he is pleased to see his land potentially used for renewable energy as well as earning tax money to provide educational benefits for the Zumbrota area.⁶⁷ Dale Haglund, a landowner who is part of the proposed Brooten site, praised Project representatives for being “very forthright” with information about the Project and accommodating requests related to his work.⁶⁸

⁶² Chisago City Public Hearing Transcript (Chisago Tr.) at 20 (February 9, 2015); Montrose Public Hearing Transcript (Montrose Tr.) at 10 (February 12, 2015).

⁶³ Chisago Tr. at 20 (February 9, 2015); Faribault Public Hearing Transcript (Faribault Tr.) at 19 (February 11, 2015).

⁶⁴ Ex. 28 (Public Hearing Notice).

⁶⁵ LETTER (March 5, 2015) (eDocket No. 20153-107970-01).

⁶⁶ Montevideo Public Hearing Transcript (Montevideo Tr.) at 18 (February 9, 2015) (Jones).

⁶⁷ Faribault Tr. at 22-23 (February 11, 2015) (Nord).

⁶⁸ Paynesville Public Hearing Transcript (Paynesville Tr.) at 30-31 (February 12, 2015) (Haglund).

62. Individuals who testified in opposition to the Project generally focused their comments on the visual aesthetics of the Project, the potential impact on nearby property values, and the potential impact on native wildlife and vegetation. Jim Morgan, a resident of Pipestone, testified regarding the negative impacts created by a proposed site 114 feet from his home and neighborhood, including an inability to obscure his view of the solar panels because his house sits on land that is 15 feet higher in elevation than the agricultural land slated for the site.⁶⁹ Debora Frick, a resident of Buffalo, testified regarding the negative impacts created by the proposed Lake Pulaski site located 200 hundred feet from her home, claiming the negative impact of the Project on some residents is worse than suggested by Aurora representatives and the environmental report.⁷⁰

63. Some individuals in attendance at the public hearings asked questions of the panel without taking a specific position on the Project. For example, Mark Koran, a resident of Chisago County, asked representatives from Geronimo whether the proposed Project includes fixed or tracking solar panel systems, and the height differential between each system once installed.⁷¹ Dennis Anderson, also a resident of Chisago County, asked representatives from the Commission about the required actions by the operator of a solar site once it is decommissioned, including whether infrastructure will be removed and the site restored to its original condition.⁷² Karl Vohs, a resident of Faribault, asked whether establishment of a solar site will limit the ability of community members to establish a local community solar garden and connect to the same transfer station.⁷³ David Lieser, a Chippewa County commissioner, asked questions about the lifespan of the solar system sites and Geronimo's vision for the future expansion of solar energy in Minnesota.⁷⁴ Richard, a resident of Corinna Township, asked questions about the owner of the Project, EGPNA.⁷⁵ Ron Shimanski, a resident of McLeod County, asked whether the zoning and tax assessments for the solar sites will change.⁷⁶

VIII. Summary of Written Comments on the Project and Environmental Assessment

A. Public Comments

64. Written public comments in support of the Project generally focused on the benefits of renewable energy and distributed energy, including the minimal environmental impact as well as educational opportunities.⁷⁷

⁶⁹ Pipestone Public Hearing Transcript (Pipestone Tr.) at 20-23 (February 10, 2015) (Morgan).

⁷⁰ Montrose Tr. at 29-31 (February 12, 2015) (Frick).

⁷¹ Chisago Tr. at 23-24 (February 9, 2015) (Koran).

⁷² Chisago Tr. at 27-29 (February 9, 2015) (D. Anderson).

⁷³ Faribault Tr. at 23-24 (February 11, 2015) (Vohs).

⁷⁴ Montevideo Tr. at 20-22 (February 9, 2015) (Lieser).

⁷⁵ Montrose Tr. at 23-24 (February 12, 2015) (Naaktgeboren).

⁷⁶ Montrose Tr. at 48-49 (February 12, 2015) (Shimanski).

⁷⁷ Comments (February 25, 2015) (eDocket No. 20152-107652-01).

65. Written public comments in opposition to the Project generally discussed visual and auditory aesthetics, potential impact to property values and future development, the locations of the proposed facilities, and whether the Project should be required to comply with local zoning regulations. Written comments also stressed concern for the environment and wildlife. Some commenters posed general questions about solar energy. A number of public comments mentioned the North Star project and Community Energy Solar even though neither project is associated with Aurora.⁷⁸

66. Judy Coughlin, a resident of the city of Wyoming, Minnesota, expressed concern with the location of the Wyoming facility along U.S. Highway 61 in an area designated as future commercial and mixed use property. Ms. Coughlin believes that, given the conflict between the proposed solar facility and the long-term plan for the area, the Wyoming site should not be permitted by the Commission. If the Commission does approve the Project, Ms. Coughlin requested that the Wyoming facility area be reduced in size and moved away from U.S. Highway 61.⁷⁹

67. Shawn Smith filed a number of written comments during the Montrose public hearings as well as during the written comment period regarding potential impacts to his property, which is located adjacent to the proposed Annandale facility. Mr. Smith believes that because his property is located in an orderly annexation agreement area and may be the site of residential properties in the future, Aurora should provide landscape screening between his property and the Annandale facility.⁸⁰

68. Paul Moline, a member of the Carver County Planning and Water Management Department, requested landscaping or screening be installed to break up the visual profile of the West Waconia facility. Mr. Moline also believes the West Waconia facility should be subject to the Carver County zoning code, and any future decommissioning of the facility should address septic systems and wells. Finally, Mr. Moline asserted that the EA tables should include Norwood Young America population statistics.⁸¹

69. Lyle G. Johnson, Lent Township Supervisor, submitted Lent Township ordinances regarding landscaping and setbacks, and expressed concern about traffic safety relative to the Chisago facility's potential impact on traffic.⁸²

70. Joe Triplet, Chisago County Engineer and Director of Public Works, discussed the Chisago facility's impact on safe highway operation. He also requested removal of some trees to aid snow and ice removal on the highway.⁸³

⁷⁸ Comments (February 25, 2015) (eDocket No. 20152-107652-01).

⁷⁹ Comment by Judy Coughlin (February 25, 2015) (eDocket No. 20152-107652-01).

⁸⁰ Comment by Shawn Smith (February 25, 2015) (eDocket No. 20152-107652-01); Ex. G (Shawn Smith Submission); Ex. H (Shawn Smith Submission).

⁸¹ Comment by Paul Moline (February 25, 2015) (eDocket No. 20152-107652-01).

⁸² Comment by Lyle Johnson (February 25, 2015) (eDocket No. 20152-107652-01).

⁸³ Comment by Joe Triplet (February 25, 2015) (eDocket No. 20152-107652-01).

71. Bruce Messet, Chisago County Administrator, submitted Chisago County's Solar Energy System Ordinance.⁸⁴

72. Kelly Hinnenkamp, City Administrator from Annandale, believes the Project should be relocated to an area not within the city's orderly annexation area, which the city has identified as an area of potential future growth.⁸⁵

73. Jim Morgan submitted comments related to the proposed Pipestone facility that were similar to the comments he made at the Pipestone public hearing. Mr. Morgan's comments addressed particular concerns with the screening of the proposed facility from nearby homes, given the proximity of the facility to homes and the existing topography. Mr. Morgan's home sits at an elevation approximately 15 feet above the Project site, making landscape screening of the Project site ineffective. Mr. Morgan believes the Project will negatively impact the value of his property and Aurora fails to minimize the aesthetic impact on human settlement.⁸⁶

74. Neil Jensen, Zumbrota City Administrator, commented about his city's concern with the location of the Zumbrota facility on land immediately adjacent to U.S. Highway 52. According to Mr. Jensen, Zumbrota has invested over \$250,000 to provide infrastructure in this area, and MnDOT has invested over \$2 million dollars on utility and highway upgrades in the area.⁸⁷

B. MnDNR Comments

75. The MnDNR provided comments on wetlands, vegetation management, wildlife, rare species, and shoreland areas.⁸⁸

76. The MnDNR requested that, prior to permitting, the record include information on wetland impacts for all sites and how the wetland impacts will be mitigated so that the MnDNR can determine if concerns regarding wetlands have been appropriately addressed.⁸⁹

77. The MnDNR requested that Aurora be required to develop a vegetation management plan to formalize measures to minimize disturbance of existing vegetation, control invasive species, establish beneficial grasses and forbs, and ensure long-term success of the plantings and increased wildlife use. For example, the plan should include language requiring that any mowing occur after July 15 in order to allow a greater percentage of birds to hatch out of their ground nests. The MnDNR also

⁸⁴ Comment by Bruce Messet (February 25, 2015) (eDocket No. 20152-107652-01).

⁸⁵ Comment by Kelly Hinnenkamp (February 25, 2015) (eDocket No. 20152-107652-01).

⁸⁶ Ex. D (Jim Morgan Submission).

⁸⁷ Ex. E (Neil Jensen Submission).

⁸⁸ Comment by MnDNR (February 24, 2015) (eDockets Nos. 20152-107592-01, 20152-107592-02, 20152-107592-03, 20152-107592-04).

⁸⁹ *Id.*

encouraged the planting of native seed containing grasses and forbs beneficial to wildlife, including pollinators.⁹⁰

78. To avoid potential entanglement in barbed wire by deer, the MnDNR recommended Aurora modify the design of the security fence to construct a one to two foot span of monofilament cables or barbless wire at 45 degrees outward from the top of the fence in lieu of the top one foot of barbed wire proposed by Aurora.⁹¹

79. The MnDNR suggested a fence perimeter setback of 25 to 50 feet from highway right-of-way to avoid pushing wildlife onto roadways. Specifically, the MnDNR recommended a fence setback at the Paynesville, Wyoming, Zumbrota, and Lake Emily facilities on the portions of the facilities adjacent to a state or U.S. highway.⁹²

80. The MnDNR recommended a permit condition requiring incidental monitoring and periodic reporting of any wildlife concerns that arise from operation of the solar facility.⁹³ Notably, the Chisago and Wyoming sites are within areas of statewide importance to the Blanding's turtle, a state-listed threatened species which will nest in cropland and pastures.⁹⁴ The MnDNR also noted that Blanding's turtles have been reported in the vicinity of the Scandia site.⁹⁵

81. According to the MnDNR, shoreland zoning regulated by the Shoreland Management Act⁹⁶ provides the backbone for statewide standards that local governmental units must adopt into their own land use controls to provide for the orderly development and protection of Minnesota's shorelands. State shoreland rules are implemented through county and city shoreland ordinances. The MnDNR requested that the Site Permit for the Project require compliance with all county and city shoreland ordinances.⁹⁷

C. Minnesota Department of Agriculture Comments

82. The Minnesota Department of Agriculture expressed concern over the Project's conversion of productive agricultural land to non-agricultural use, as well as damage to the productive capacity of the agricultural land. To address its concerns, the Minnesota Department of Agriculture recommended that an agricultural mitigation plan be required as a condition for the approval of the Project. The Minnesota Department of

⁹⁰ Comment by MnDNR (February 24, 2015) (eDockets Nos. 20152-107592-01, 20152-107592-02, 20152-107592-03, 20152-107592-04).

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.*

⁹⁴ Comment by MnDNR (February 24, 2015) (eDockets Nos. 20152-107592-01, 20152-107592-02, 20152-107592-03, 20152-107592-04).

⁹⁵ *Id.*

⁹⁶ Minn. Stat. § 103F.205 (2014).

⁹⁷ *Id.*

Agriculture noted that the DOC-EERA discussed the development of an agricultural mitigation plan with Aurora, and Aurora is willing to develop such a plan.⁹⁸

D. DOC-EERA February 24, 2015 Comments

83. The DOC-EERA provided comments identifying potential mitigation strategies related to agricultural, wildlife, and transportation impacts.⁹⁹

84. DOC-EERA staff committed to work with Aurora and the Department of Agriculture to develop Site Permit language addressing measures to minimize potential impact to agricultural use of sites.¹⁰⁰

85. The DOC-EERA believes the Project should be prohibited from being located in areas designated as shoreland districts.¹⁰¹

86. The DOC-EERA does not believe there is sufficient information in the record to require the development of a formal wildlife mitigation plan, but believes the Site Permit should include a provision for incidental reporting of wildlife impacts.¹⁰²

87. During development of the EA, DOC-EERA staff received inquiries from some local governments questioning how fencing setbacks from local roads would be addressed in a Site Permit. In the absence of an identifiable uniform fencing setback distance from roadways, the DOC-EERA has suggested permit language requiring Aurora to document the rationale for fencing setbacks in the site plan for each facility. DOC-EERA staff believes the rationale should reflect appropriate requirements of state, county, and township road authorities.¹⁰³

88. The DOC-EERA comment letter reiterated the EA's recommendation for development of landscaping plans to minimize visual impacts to adjacent land uses at the Atwater, Pipestone, and Zumbrota facilities where landscaping plans were specifically recommended based on proximity to existing homes. Aurora developed landscaping plans for these three facilities and all others within 350 feet of existing homes.¹⁰⁴

E. DOC-EERA March 10, 2015 Comments

89. In its March 10, 2015 filing, the DOC-EERA responded to the comments received during the public hearing and to the Proposed Findings of Facts, Conclusions

⁹⁸ Comment by MN Dept of Agriculture (February 24, 2015) (eDocket No. 20152-107640-01).

⁹⁹ Comment by DOC-EERA (February 24, 2015) (eDocket No. 20152-107633-01).

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ Comment by DOC-EERA (February 24, 2015) (eDocket No. 20152-107633-01).

¹⁰⁴ *Id.*

of Law, and Recommendations provided by Aurora.¹⁰⁵ This filing also included recommended permit conditions and recommendations on facility locations.¹⁰⁶

90. According to the DOC-EERA, the relationship between Aurora and the SPVs is explained in section 1.2.2 of the Site Permit application. The DOC-EERA noted that the application requested the Commission grant a single permit to a single permittee: Aurora.¹⁰⁷ In subsequent filings, however, Aurora requested that the Commission issue the permit to Aurora Distributed Solar, LLC and 24 SPVs, one for each of the 24 facilities.¹⁰⁸ DOC-EERA staff find it unclear whether Aurora is proposing a single permittee (Aurora Distributed Solar, LLC) or 25 permittees (Aurora Distributed Solar, LLC and each of the 24 SPVs).¹⁰⁹

91. The DOC-EERA argued that permitting more than one permittee is likely to lead to confusion over ultimate responsibility for compliance with permit conditions.¹¹⁰ As the sole permittee, Aurora will be responsible for ensuring all obligations under the Site Permit are satisfied.¹¹¹ Therefore, the DOC-EERA recommended designating Aurora Distributed Solar, L.L.C. as the sole permittee in section 1 and section 2 of the permit.¹¹²

92. The DOC-EERA also recommended that the Site Permit “be modified as appropriate to reflect the number of sites permitted by the Commission and to remove reference to any sites not permitted as part of this proceeding.”¹¹³

93. In addition, the DOC-EERA recommended changes to section 5.1 of the Site Permit template to specify that the Project not be located in: (1) public lands identified in Minn. R. 7850.4400, subp. 1; (2) federal waterfowl production areas; and (3) public lands identified in Minn. R. 7850.4400, subp. 3, unless there is no feasible and prudent alternative.¹¹⁴

94. In addition, the DOC-EERA recommended that the Site Permit prohibit locating solar sites in areas designated as shoreland districts.¹¹⁵

¹⁰⁵ Comment by DOC-EERA at 1 (March 10, 2015) (eDocket No. 20153-108079-01).

¹⁰⁶ *Id.*

¹⁰⁷ Comment by DOC-EERA at 20 (March 10, 2015) (eDocket No. 20153-108079-01); Ex. 2 at 7 (Application).

¹⁰⁸ Comment by DOC-EERA at 20 (March 10, 2015) (eDocket No. 20153-108079-01).

¹⁰⁹ *Id.*

¹¹⁰ Comment by DOC-EERA at 20-22 (March 10, 2015) (eDocket No. 20153-108079-01).

¹¹¹ Ex. 2 at 7 (Application).

¹¹² Comment by DOC-EERA at 20-23 (March 10, 2015) (eDocket No. 20153-108079-01).

¹¹³ Comment by DOC-EERA at 23 (March 10, 2015) (eDocket No. 20153-108079-01).

¹¹⁴ Comment by DOC-EERA at 24 (March 10, 2015) (eDocket No. 20153-108079-01).

¹¹⁵ Comment by DOC-EERA at 25 (March 10, 2015) (eDocket No. 20153-108079-01).

95. The DOC-EERA proposed the Site Permit preclude construction on public water wetlands as shown on public water inventory maps required by Minn. Stat. § 103G.201 (2014).¹¹⁶

96. The DOC-EERA recommended changes to section 6 of the Site Permit template to: (1) clarify that individual site plans required for each facility may be submitted individually; (2) require that a landscaping plan be submitted as part of the site plan for each facility; and (3) strike the section allowing the permittee to propose another solar site under certain circumstances.¹¹⁷

97. The DOC-EERA recommended that the Site Permit contain a section requiring the development of an agricultural impact mitigation plan similar to the plans required for high voltage transmission lines and pipelines.¹¹⁸

98. For reasons addressed below, the DOC-EERA recommended a permit condition requiring development of a vegetation management plan.¹¹⁹

99. The DOC-EERA suggested that because Aurora has sought one permit to cover all proposed facilities, it is reasonable for the Site Permit to require Aurora to designate one site manager responsible for overall permit compliance.¹²⁰

100. As further addressed below, the DOC-EERA recommended that the Site Permit require identification of known wildlife corridors as well as the reporting of wildlife injuries and fatalities.¹²¹

101. Consistent with the EA,¹²² the DOC-EERA proposed a new permit condition requiring avoidance of identified rare and unique plant communities at the Dodge Center, Paynesville, and Pine Island facilities.¹²³

102. The Scoping Decision required the EA to review the relative merits of the facility locations.¹²⁴ The DOC-EERA grouped the 24 sites proposed in the Site Permit application into three categories: sites where impacts can be addressed with standard mitigation; sites where impacts can be addressed through additional mitigation measures; and sites with additional siting challenges.¹²⁵ According to the DOC-EERA, additional mitigation measures are necessary at the Chisago site to address issues of

¹¹⁶ Comment by DOC-EERA at 24-25 (March 10, 2015) (eDocket No. 20153-108079-01).

¹¹⁷ Comment by DOC-EERA at 26-28 (March 10, 2015) (eDocket No. 20153-108079-01).

¹¹⁸ Comment by DOC-EERA at 28-29 (March 10, 2015) (eDocket ID 20153-108079-01).

¹¹⁹ Comment by DOC-EERA at 29-30 (March 10, 2015) (eDocket No. 20153-108079-01).

¹²⁰ Comment by DOC-EERA at 30 (March 10, 2015) (eDocket No. 20153-108079-01).

¹²¹ Comment by DOC-EERA at 31-32 (March 10, 2015) (eDocket No. 20153-108079-01).

¹²² Ex. 31 at 249 (Environmental Assessment).

¹²³ Comment by DOC-EERA at 38-39 (March 10, 2015) (eDocket No. 20153-108079-01).

¹²⁴ Ex. 24 at 5 (Scoping Decision for Environmental Assessment).

¹²⁵ Comment by DOC-EERA at 39 (March 10, 2015) (eDocket No. 20153-108079-01).

public traffic safety. The mitigation measures may minimally impact the design of the facility and its generating capacity.¹²⁶

103. The DOC-EERA notes that the Dodge Center, Paynesville, and Pine Island sites contain natural resources which Aurora has committed to avoiding when constructing and operating the solar sites. Avoidance of these resources may result in minimal reductions in generating capacity.¹²⁷

104. The DOC-EERA believes that development of the Project's Annandale, Mayhew Lake, Wyoming, and Zumbrota sites conflicts with the Commission's directive to site large energy facilities in a manner compatible with environmental preservation and efficient use of resources.¹²⁸ The DOC-EERA base this conclusion primarily on the concerns expressed by some cities that certain proposed sites within or adjacent to their city present conflicts between the proposed use as a PV facility and planned urban growth in those areas. These concerns include a concern about public monies already invested in accommodating potential urban growth.¹²⁹

105. The DOC-EERA also believes development of the Project at Pipestone, particularly given the other siting alternatives, is inconsistent with the Commission's directive to site large energy facilities in a manner minimizing impacts to human settlement and land use conflicts.¹³⁰

106. Other DOC-EERA recommended changes not delineated in this report are consistent with changes proposed by Aurora, or are presumed noncontroversial, or both.

F. Local Government Comments

107. The Chisago County Department of Public Works (CCDPW) recommended that the access road for the Chisago facility be moved from its proposed location on an existing field access road at the intersection of County State Aid Highway (CSAH) 14 and CSAH 11 to a secondary level road system. CCDPW also requested that Aurora remove trees along CSAH 14 and replace them with a hedge or shrub line along the highway to provide screening.¹³¹ The Chisago County Board of Commissioners also asked the Commission to consider applicable Chisago County zoning ordinances.¹³²

¹²⁶ Comment by DOC-EERA at 40 (March 10, 2015) (eDocket No. 20153-108079-01).

¹²⁷ Comment by DOC-EERA at 40-41 (March 10, 2015) (eDocket No. 20153-108079-01).

¹²⁸ Comment by DOC-EERA at 43-44 (March 10, 2015) (eDocket No. 20153-108079-01).

¹²⁹ Comment by DOC-EERA at 42-43 (March 10, 2015) (eDocket No. 20153-108079-01).

¹³⁰ Comment by DOC-EERA at 40 (March 10, 2015) (eDocket No. 20153-108079-01).

¹³¹ Comment by CDPW (February 10, 2015) (eDocket No. 20152-107652-01).

¹³² Comment by Chisago County Board of Commissioners (February 24, 2015) (eDocket No. 20152-107652-01).

108. Lent Township in Chisago County asked the Commission to require Aurora to follow local ordinances relative to screening and setbacks.¹³³ Mr. Johnson, the Township Supervisor, later provided an excerpt from the Lent Township Zoning Ordinance related to screening and setbacks in the township. He also asked that the access road for the Chisago facility be moved from its proposed location on an existing field access road at the intersection of CSAH 14 and CSAH 11 to a secondary level road system.¹³⁴

109. Carver County requested the Commission to consider screening and security for facilities, as well as temporary or permanent storage for site equipment. The county also provided comments to clarify information contained in the EA.¹³⁵

110. The city of Annandale requested that the Commission's decision take into account the city's public investment in utility extensions and oversizing of trunk lines in order to accommodate future growth in the area. The city believes that a location outside of the planned urban growth area would better minimize conflicts between the proposed PV facility and planned urban growth identified in the area.

111. The city of Annandale also requested the Commission to consider relocating the proposed site to another location outside of the city's orderly annexation area. In the alternative, the city requested vegetative screening of the Annandale site as well as financial assurances for decommissioning the property. The city also recommended the site layout accommodate appropriate maintenance of the facility.¹³⁶

112. The city of Wyoming expressed concern over the preemption of local zoning and approval by the state Site Permit process. The city also commented on the siting of the Wyoming facility on undeveloped, agricultural land currently designated as mixed use development under the city's comprehensive development plan. The city's mixed use district is intended to include two or more uses, primarily commercial and high density residential uses. The city's comments note that the site is particularly well-suited to mixed use development due to its access to U.S. Highway 61, and can be cost-effectively served by city water and sewer. The city's comment also expressed concern over the ability of local governments to guide local land use decisions under Minn. Stat. § 216E.05.¹³⁷

113. The city of Zumbrota expressed concerns over the appropriateness of the proposed site in Aurora, expressing its belief that a solar facility is not the highest and best use for the land. In its comment letter, the city identified utility and highway

¹³³ Comment by Lent Township (February 20, 2015) (eDocket No. 20152-107652-01).

¹³⁴ Comment by Lent Township (February 23, 2015) (eDocket No. 20152-107652-01).

¹³⁵ Comment by Carver County (February 19, 2015) (eDocket No. 20152-107652-01).

¹³⁶ Comment by city of Annandale (February 24, 2015) (eDocket No. 20152-107652-01).

¹³⁷ Comment by city of Wyoming (February 20, 2015) (eDocket No. 20153-107903-01).

upgrades of more than \$2 million west of the intersection of Goodhue County Highway 68/445th Street and Highway 52, just north of the proposed site.¹³⁸

IX. Site Permit Criteria

114. The siting of a large electric power generating plant (LEPGP) is governed by Minn. Stat. ch. 216E and Minn. R. ch. 7850. The statute defines a “large electric power generating plant” as “electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more.”¹³⁹

115. Whether a combination of solar generating systems meets the definition of a LEPPG and therefore is subject to the Commission’s siting authority jurisdiction is governed by Minn. Stat. § 216E.021. Pursuant to that statute, the alternating current nameplate capacity of one solar energy generating system must be combined with the alternating current nameplate capacity of any other solar generating system, if the systems are: (1) constructed within the same 12-month period; and (2) exhibit characteristics of being a single development, including but not limited to ownership structure.¹⁴⁰

116. Upon written request of an applicant, the Commissioner of Commerce shall provide a written size determination within 30 days of receipt of the request. In the case of a dispute, the Chair of the Public Utilities Commission shall make the final size determination.¹⁴¹

117. On June 27, 2014, Aurora submitted information to the DOC-EERA requesting a size determination for the Project. On July 29, 2014, the DOC-EERA informed Aurora that, based on the information provided, the Project is a 100 MW LEPPG and subject to the Commission’s siting authority.¹⁴² Therefore, a Site Permit is required prior to construction of the Project.¹⁴³

118. A LEPPG powered by solar energy is eligible for the alternative permitting process authorized by Minnesota Statute section 216E.04, subdivision 2(8). Aurora filed a Site Permit application under the process for alternative permitting established by the Commission in Minn. R. 7850.2800-.3900.¹⁴⁴

119. For a LEPPG to be permitted under the alternative permitting process, the DOC-EERA prepares an EA for the Commission containing information on the human

¹³⁸ Comment by City of Zumbrota (September 5, 2014) (eDocket No. 20149-102880-01).

¹³⁹ Minn. Stat. § 216E.01, subd. 5 (2014).

¹⁴⁰ Minn. Stat. § 216E.021 (a)(1)-(2) (2014).

¹⁴¹ Minn. Stat. § 216E.021 (2014).

¹⁴² Ex. 4 at 3 (DOC-EERA Comments and Recommendations on Application Completeness).

¹⁴³ Minn. Stat. § 216E.02 (2014).

¹⁴⁴ Ex. 2 at 1 (Application).

and environmental impacts of the proposed project.¹⁴⁵ The environmental assessment is the only state environmental review document required to be prepared on the project.

120. The Power Plant Siting Act (PPSA) requires that Site Permit determinations “be guided by the state’s goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state’s electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.”¹⁴⁶

121. Under the PPSA, the Commission and OAH must be guided by the following responsibilities, procedures, and considerations:

- 1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
- 2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
- 3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;
- 4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;
- 5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;
- 6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;
- 7) evaluation of alternatives to the applicant’s proposed site or route proposed pursuant to subdivisions 1 and 2;

¹⁴⁵ Minn. Stat. § 216E.04, subd. 5 (2014).

¹⁴⁶ Minn. Stat. § 216E.03, subd. 7 (2014).

- 8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
- 9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;
- 10) evaluation of future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;
- 11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and
- 12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.¹⁴⁷

123. In addition to the PPSA, the Commission and OAH are governed by Minn. R. 7850.4100, which mandates consideration of the following factors when determining whether to issue a Site Permit for a LEPGP:

- a. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- b. effects on public health and safety;
- c. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- d. effects on archaeological and historic resources;
- e. effects on the natural environment, including effects on air and water quality resources and flora and fauna;
- f. effects on rare and unique natural resources;
- g. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- h. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;

¹⁴⁷ Minn. Stat. § 216E.03, subd. 7 (2014).

- i. use of existing large electric power generating plant sites;
- j. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- k. electrical system reliability;
- l. costs of constructing, operating, and maintaining the facility which are dependent on design and route;
- m. adverse human and natural environmental effects which cannot be avoided; and
- n. irreversible and irretrievable commitments of resources.

124. There is sufficient evidence in the record for the Administrative Law Judge to assess the proposed sites using the criteria and factors set forth above.

X. Application of Statutory and Rule Criteria

A. Effects on Human Settlement

125. The LEPGP Site Permit criteria set forth in Minnesota law require consideration of the proposed sites' effect on human settlement, including displacement of residences and businesses; noise created during construction and by operation of the Project; and impacts to aesthetics, cultural values, recreation, and public services.¹⁴⁸

126. In this case, the land for the proposed sites is currently used for agricultural purposes. In the aggregate, the Project will result in approximately 1,120 acres being removed from agricultural production for at least the anticipated 25-year minimum useful life of the Project.¹⁴⁹ Aurora does not have the authority to exercise eminent domain, and will therefore compensate landowners for the use of the land through lease payments or by purchasing the land.¹⁵⁰

1. Displacement

127. Solar facilities are generally sited away from homes and businesses because of land use requirements.¹⁵¹

128. Aurora anticipates construction of the Project will result in the removal of one home within the area of the Mayhew Lake facility as part of a voluntary agreement with the landowner.¹⁵² The landowner is responsible for coordinating with the tenant, if

¹⁴⁸ Minn. Stat. § 216E.03, subd. 7(b) (2014); Minn. R. 7850.4100(A) (2013).

¹⁴⁹ Ex. 31 at 32 (Environmental Assessment).

¹⁵⁰ Ex. 31 at 33, 245 (Environmental Assessment).

¹⁵¹ Ex. 31 at 37 (Environmental Assessment).

¹⁵² *Id.*

any, to vacate the property as provided in the agreement between the landowner and the tenant, prior to construction of the Project.¹⁵³

129. Construction of the Paynesville facility will result in the removal of the remains of an abandoned farmstead. Because the home is not considered habitable, removal of the structure is not considered to be displacement.¹⁵⁴

2. Noise

130. Noise concerns for the Project are related primarily to the construction phase due to heavy equipment operation and increased vehicle traffic associated with the transport of construction personnel to and from the work areas.¹⁵⁵

131. During operation of the Project, the primary source of noise will be from the inverters, and to a lesser extent from the transformers and rotation of tracking systems, located at each facility. All electrical equipment will be designed to National Electrical Manufacturer Association Standards. Noise levels will depend upon the inverter selected. Although Aurora had not selected an inverter at the time of the EA's preparation, manufacturer's data from the models under consideration show a 50 dBA noise level would be perceptible at a range of 30 to 224 feet from the inverter.¹⁵⁶

132. Preliminary facility design indicates the closest home will be approximately 180 feet from any solar array. Because the inverters will be located within the solar arrays, noise impacts during operation of the facility are not anticipated to be discernible from current background noise levels discernible to homes in the vicinity.¹⁵⁷

133. Maintenance activities that may potentially create noise will be performed during daytime hours in order to minimize noise impacts to nearby residents.¹⁵⁸

3. Aesthetics

134. The Project will result in alteration of the current visible landscape because land primarily covered in row crops or pastureland will be converted to a solar facility. Because of their low profile, the solar facilities will not be visible from a great distance. Aesthetic impacts will be primarily experienced by nearby residents and people using the roads adjacent to the solar facilities.¹⁵⁹

135. The primary components of a PV solar facility that alter the landscape are solar arrays and perimeter fencing. When PV panels are at a zero degree angle, the panels will be approximately four to six feet off the ground. When panels are at their

¹⁵³ Ex. 2 at 40 (Application).

¹⁵⁴ Ex. 31 at 37 (Environmental Assessment).

¹⁵⁵ Ex. 31 at 38 (Environmental Assessment).

¹⁵⁶ Ex. 31 at 38 (Environmental Assessment); Ex. 2 at 44 (Application).

¹⁵⁷ Ex. 31 at 38 (Environmental Assessment); Ex. 2 at 43 (Application).

¹⁵⁸ Ex. 31 at 39 (Environmental Assessment).

¹⁵⁹ Ex. 31 at 40 (Environmental Assessment).

maximum tilt of 45 degrees, the tops of the panels will be approximately eight to ten feet off the ground. Each facility will be enclosed by an eight-foot safety and security fence made up of a seven-foot chain link fence topped by another foot of barbed wire.¹⁶⁰

136. Glare and reflection from the PV panels is expected to be minimal because, unlike concentrating solar which uses mirrors to concentrate solar energy to create the heat energy used to create electricity, PV panels are constructed of dark, light-absorbing material and covered with an anti-reflective coating to limit reflection.¹⁶¹

137. The installation of PV facilities will create a limited visual impact at ground level. The PV facilities are expected to have no emissions or noise impacts to adjacent land uses during operation of the facilities.¹⁶²

138. The aesthetics of the PV facilities are an expressed concern of some neighboring property owners. Whether the PV facilities are more or less aesthetically desirable than any other future possible use of the land is a relatively speculative determination.¹⁶³

139. Aesthetic impacts can be minimized by selecting sites where solar facilities maintain the existing landscape not immediately adjacent to homes or shielded from view by terrain or existing vegetation. Landscaping plans can be developed to identify site-specific landscaping techniques including vegetation screening, berms, or fencing to minimize visual impacts to adjacent land uses.¹⁶⁴

140. In response to concerns raised by adjacent residents Aurora has proposed landscaping plans for the Atwater, Lake Pulaski, Lawrence Creek, Lester Prairie, Montrose, Pipestone, Wyoming and Zumbrota facilities, which are all proposed sites near existing residential homes.¹⁶⁵ Aesthetic impacts for neighboring homeowners will be largely mitigated by the site-specific landscaping plans developed by Aurora for the Atwater, Lake Pulaski, Lawrence Creek, Lester Prairie, Montrose, Wyoming and Zumbrota facilities.

141. It may not be possible to protect the view for the homes near the Pipestone facility given the elevation of the homes relative to the Project.¹⁶⁶

¹⁶⁰ Ex. 31 at 41 (Environmental Assessment).

¹⁶¹ *Id.*

¹⁶² Ex. 31 at 35 (Environmental Assessment).

¹⁶³ Ex. 31 at 39-40 (Environmental Assessment).

¹⁶⁴ Ex. 31 at 42 (Environmental Assessment).

¹⁶⁵ Ex. 35 at 4 (Smith Direct).

¹⁶⁶ Ex. D (Jim Morgan Submission).

4. Cultural Values

142. The Project contains facilities within 16 counties across Minnesota. The populations of these counties derive from a diverse ethnic heritage, with a majority of the reported ethnic backgrounds being of European origin.¹⁶⁷

143. Cultural representation in community events appears to be more closely tied to geographic features, seasonal events, national holidays, and municipal events rather than based on ethnic heritage.¹⁶⁸

144. No impacts to cultural values are anticipated.¹⁶⁹

5. Recreation

145. There are no federal, county, or state parks within or adjacent to any of the proposed facilities. Several facilities are located within one-half mile of county or local parks, including the Pipestone facility (Westview Park and middle/high school baseball fields); Waseca facility (a city nature area and Loon Lake Park), the West Faribault facility (Spring Greenway), and the Wyoming facility (Banta Park).¹⁷⁰

146. All Project facilities will be located on private lands. No public recreational lands will be directly impacted by construction or operation of the proposed PV facilities. Visual impacts may affect individuals utilizing public or private lands within or near the proposed facilities. Temporary noise impacts could be experienced by individuals using the recreational resources in the area during construction activities.¹⁷¹

147. State Wildlife Management Areas (WMAs) are established to provide wildlife habitat, improve wildlife production, and provide public opportunities for hunting and trapping. There are no WMAs located within any of the Project facilities. The Paynesville facility is located directly west of the Spirit Lake WMA. Five other Project facilities are located within one mile of WMAs: the Chisago facility (Carlos Avery WMA); the Hastings facility (Rutstrum WMA); the Lake Emily facility (Ottawa WMA); the Montrose facility (Malardi Lake WMA); and the Pipestone facility (Pipestone Indian WMA).¹⁷²

148. State Scientific and Natural Areas (SNAs) are designated to protect rare and endangered species habitat, unique plant communities, and significant geologic features that possess scientific or educational values. There are no SNAs within one mile of any of the Project facilities.¹⁷³

¹⁶⁷ Ex. 2 at 48 (Application).

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ Ex. 31 at 45 (Environmental Assessment).

¹⁷¹ Ex. 31 at 46 (Environmental Assessment).

¹⁷² Ex. 31 at 45 (Environmental Assessment).

¹⁷³ *Id.*

149. State Waterfowl Production Areas (WPAs) are managed to protect breeding, forage, shelter, and migratory habitat for waterfowl or wading birds, such as ducks, geese, herons, and egrets. WPAs provide opportunities for viewing wildlife and intact ecosystems.¹⁷⁴ There are no WPAs within any of the proposed facility locations. WPAs are located just south of the Annandale facility and within one mile of the Pipestone facility.¹⁷⁵

150. The Mayhew Lake facility is located on a private parcel situated within the Sauk Rapids-Rice Goose Refuge. State goose refuges provide habitat and protection for geese, but hunting of other waterfowl is allowed on public lands within the refuge boundaries. The Pipestone facility is located on a private parcel located within the boundaries of the Hiawatha State Game Refuge, where small game hunting is allowed on public parcels. Hunting activities could occur on other parcels located within the refuge boundaries.¹⁷⁶

151. No impact to hunting activities is anticipated from the Project. The location of the PV facilities could potentially affect hunting activities in close proximity to the extent that they may constrain shooting directions.¹⁷⁷

152. No national parks or national wildlife refuges were identified within one mile of the Project facilities. The Pipestone facility is located not far from the southern boundary of the Pipestone National Monument.¹⁷⁸ The Superintendent of the Pipestone National Monument believes the Pipestone facility will not have a visual impact on the Pipestone National Monument.¹⁷⁹

153. The Lawrence Creek and Hastings facilities are located within one mile of the St. Croix National Scenic Riverway.¹⁸⁰ Neither the Lawrence Creek facility nor Hastings facility is anticipated to be visible to recreational users on the St. Croix National Scenic Riverway because of the wooded bluffs on the banks of the river and the low visual profile of the facilities.¹⁸¹

154. Construction of the West Faribault facility will require rerouting of the Faribo Sno-Go trail in the area of the facility. Aurora has coordinated with the administrator of the Faribo Sno-Go trail regarding rerouting,¹⁸² and intends to coordinate with local snowmobile clubs and trail associations to identify potential conflicts, and where necessary, realignment opportunities.¹⁸³

¹⁷⁴ Ex. 2 at 49 (Application).

¹⁷⁵ Ex. 31 at 45 (Environmental Assessment).

¹⁷⁶ Ex. 31 at 45 (Environmental Assessment); Minn. R. 6240.1850 (2013).

¹⁷⁷ Ex. 31 at 46 (Environmental Assessment).

¹⁷⁸ Ex. 31 at 45 (Environmental Assessment).

¹⁷⁹ Ex 31 at 195 (Environmental Assessment).

¹⁸⁰ Ex. 31 at 46 (Environmental Assessment).

¹⁸¹ *Id.*

¹⁸² Ex. 2, Appendix B (Application).

¹⁸³ Ex. 31 at 46 (Environmental Assessment).

6. Public services

155. Public services in the form of fire, law enforcement, and emergency services are provided by the counties, municipalities, and townships where the proposed facilities are located.¹⁸⁴

156. The existing public road system providing access to the proposed facilities is generally located along section lines and managed by state and local government units.¹⁸⁵

157. Existing roadways will be used to deliver construction materials and personnel to the facilities. Light-duty trucks will travel to the facility daily during the course of construction. Aurora estimates that for every two MW of installed capacity, there will be between 25 and 35 trucks delivering materials to the facility during construction. No impacts to roads are expected during operation because only minimal traffic will occur during regular maintenance.¹⁸⁶

158. Each facility will be accessed from the public road network. In some cases the facilities will be able to use an existing road access point, while in others will require establishment of a new access point from the existing roadway network. No upgrades or changes to existing roadway systems are necessary for construction or operation of the Project.¹⁸⁷

159. New drives or access roads will require approval by appropriate local or state highway departments.¹⁸⁸

160. As part of the facility design process, Aurora will identify the locations of underground utilities and avoid impacts to them in final facility design.¹⁸⁹

161. Aurora will seek appropriate state and local permits of wells and septic systems as part of any facility.¹⁹⁰

162. Construction activities may inadvertently disrupt utilities, particularly underground utilities.¹⁹¹ Aurora will identify the locations of underground utilities and avoid impacts to underground utilities in the final facility design.¹⁹²

¹⁸⁴ Ex. 31 at 35 (Environmental Assessment).

¹⁸⁵ Ex. 31 at 36 (Environmental Assessment).

¹⁸⁶ Ex. 31 at 37 (Environmental Assessment).

¹⁸⁷ Ex. 31 at 36 (Environmental Assessment); Ex. 2 at 25 (Application).

¹⁸⁸ Ex. 31 at 37 (Environmental Assessment).

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ Ex. 31 at 36 (Environmental Assessment).

¹⁹² Ex. 2 at 53 (Application); Ex. 31 at 37 (Environmental Assessment).

163. Aurora does not anticipate that the facilities will be served by city water or sewer. In areas where the proposed facilities are located near growing municipalities, construction of a facility may require services to be routed around the PV facility.¹⁹³

B. Effects on Public Health and Safety

164. LEPGP Site Permit criteria require consideration of the Project's effect on health and safety.¹⁹⁴

165. Safety issues at PV facilities are largely associated with construction. Safety concerns associated with the operation of a PV facility are limited.¹⁹⁵

166. The Project will not require construction of high voltage transmission lines. Electricity produced at each facility will be transferred to the local distribution system through a low-voltage gen-tie line with a maximum capacity of 34.5 kV. The gen-tie lines are anticipated to be constructed underground within the facilities and may be either underground or overhead at the point of interconnection, generally at the facility's fence line, where electricity is transferred to Xcel Energy.¹⁹⁶

167. The EA states that based upon material from other dockets before the Commission, electric fields would be very low, perhaps 0.15 kV/M near the centerline, rapidly disappearing to zero for overhead lines and zero for any portion of the line constructed underground.¹⁹⁷

168. Compared to other solar technologies such as concentrating solar power, PV installations are unlikely to create hazards to aircraft.¹⁹⁸ Eight facilities (Brooten, Dodge Center, Fiesta City, Lake Pulaski, Lester Prairie, Pipestone, Waseca, and West Faribault) are located within three nautical miles of Federal Aviation Administration (FAA) registered airports. Aurora used the FAA notice criteria screening tool on these eight facilities and determined that no further review is required for seven of the facilities. The FAA recommended further study of the Fiesta City facility.¹⁹⁹ Further study of the Fiesta City facility was completed by the FAA, and a Determination of No Hazard to Air Navigation was received on December 17, 2014.²⁰⁰

169. Safety issues associated with construction activities will be mitigated by compliance with local, state, and federal regulations, and standard construction safety

¹⁹³ Ex. 31 at 36 (Environmental Assessment).

¹⁹⁴ Minn. Stat. § 216.E03, subd. 7(b)(1) (2014); Minn. R. 7850.4100(B) (2013).

¹⁹⁵ Ex. 35 at 4 (Smith Direct).

¹⁹⁶ Ex. 31 at 43 (Environmental Assessment).

¹⁹⁷ Ex. 31 at 44 (Environmental Assessment) (citing Department of Commerce, *Environmental Report: Hollydale 115kV Transmission Project* (February 2013)).

¹⁹⁸ Ex. 31 at 43 (Environmental Assessment) (citing DOE & BLM, *Solar Energy Development Environmental Considerations*, <http://solareis.anl.gov/guide/solar/pv/index.cfm>).

¹⁹⁹ Ex. 31 at 43 (Environmental Assessment).

²⁰⁰ Reply Comments (February 24, 2015) (eDocket Nos. 20152-107623-01, 20152-107623-02).

procedures, as well as the emergency response plan anticipated to be required by the Site Permit.²⁰¹

170. No adverse impacts from electric or magnetic fields associated with the gen-tie lines are anticipated.²⁰²

171. If there is not sufficient space between the public roadway and the perimeter fencing surrounding the facilities, the perimeter fencing may create safety hazards by impeding routine road maintenance activities such as snow removal and potentially pushing wildlife onto the road. Impacts to public safety can be minimized by locating perimeter fencing to allow sufficient space to perform necessary road maintenance and allow for wildlife to follow the fence line rather than be diverted onto the public roadway.²⁰³

C. Effects on Land Based Economics

172. LEPGP Site Permit criteria require consideration of the Project's effect on land-based economics, including but not limited to agriculture, forestry, tourism, and mining.²⁰⁴

1. Agriculture

173. The majority of the land included within the Project facilities is agricultural crop land. Of the 1,196.60 acres of land within the preliminary development area for the 24 facilities, approximately 1,058.8 acres, or 88.5 percent of the total area, are used for agricultural production, according to Gap Analysis Program data. This includes both crop and pasture land covers, but aeriels and site visits show that the majority of these facilities are in crop production rather than pasture.²⁰⁵

174. Up to 1,058.8 acres of land will be taken out of agricultural production during the life of the Project. At the end of the Project's useful life, the facilities will be decommissioned and the land can be restored to agricultural use.²⁰⁶ Potential impacts to future agricultural use of the sites following decommissioning can be addressed through an agricultural impact mitigation plan based on the requirements of Minn. Stat. § 216E.10, subd. 3(b).²⁰⁷

²⁰¹ Ex. 31 at 44 (Environmental Assessment).

²⁰² *Id.*

²⁰³ Comment by DOC-EERA (February 24, 2015) (eDocket No. 20152-107633-01).

²⁰⁴ Minn. Stat. § 216.E03, subd. 7(b)(1); Minn. R. 7850.4100(C).

²⁰⁵ Ex. 2 at 17, 57 (Application); Ex. 26 (Corrected Information to Supplement the Application).

²⁰⁶ Ex. 2 at 57 (Application); Ex. 26 (Corrected Information to Supplement the Application). The EA states 1,123.3 acres of agricultural land may be taken out of production due to the use of a different GIS landcover dataset (NLCD) than the GAP data used by Aurora. Ex. 31 at 47, 52 (Environmental Assessment).

²⁰⁷ Comment (February 24, 2015) (eDocket No. 20152-107633-01); Comment (February 24, 2015) (eDocket No. 20152-107640-01).

175. The United States Department of Agriculture defines prime farmland as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (i.e. cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water).²⁰⁸

176. Minnesota Rules part 7850.4400, subpart 4, prohibits the issuance of a permit for an LEPGP where the developed portion of the plant site will use more than 0.5 acres of prime farmland per MW of net generating capacity, unless no feasible and prudent alternative exists. The prime farmland exclusion does not apply to areas located within a home rule charter or statutory cities; areas located within two miles of a home rule charter or statutory cities of the first, second, and third class; or areas designated for orderly annexation under Minn. Stat. § 414.0325 (2014).²⁰⁹

177. Of the 24 proposed facilities, the prime farmland exclusion does not apply to 14 facilities, the Annandale, Brooten, Chisago, Eastwood, Hastings, Lake Emily, Lake Pulaski, Mayhew Lake, Montrose, Pine Island, Pipestone, West Faribault, Wyoming and Zumbrota facilities, because they are within statutory cities, within two miles of a first, second, or third class city, or are in areas designated for orderly annexation.²¹⁰ The Paynesville and Scandia facilities are expected to use less than 0.5 acres of prime farmland per MW and would therefore not be in violation of the restriction in Minn. R. 7850.4400, subp. 4.²¹¹

178. The land surrounding the Albany, Atwater, Dodge Center, Fiesta City, Lester Prairie, Lawrence Creek, Waseca and West Waconia facilities and the substations to which they will interconnect is also comprised of a similar amount of prime farmland as the proposed facilities.²¹² Because the surrounding areas also contain similar amounts of prime farmland as the proposed facility locations, there are no feasible and prudent alternatives to these facilities. Therefore, the Project does not conflict with the restrictions contained in Minnesota Rule part 7850.4400, subpart 4.

2. Forestry

179. No economically significant forestry resources will be affected by the Project. Therefore, no mitigating measures are necessary.²¹³

²⁰⁸ Ex. 2 at 59 (Application); Ex. 31 at 48 (Environmental Assessment).

²⁰⁹ Ex. 2 at 61 (Application); Ex. 31 at 61 (Environmental Assessment).

²¹⁰ Ex. 31 at 53 (Environmental Assessment).

²¹¹ *Id.*

²¹² *Id.*

²¹³ Ex. 2 at 63 (Application); Ex. 31 at 53 (Environmental Assessment).

3. Tourism

180. Tourism in the area of the proposed Project sites is largely associated with the recreational activities discussed above. No impacts to tourism are anticipated. Therefore, no mitigating measures are necessary.²¹⁴

4. Mining

181. There are no active gravel pits or other mineral extraction sites located within or directly adjacent to any of the proposed facilities. There are multiple gravel pits, rock quarries, commercial aggregate sources, and registered prospected sources in the general vicinity of the proposed facilities.²¹⁵

182. The northern portion of the area under land control for the Paynesville facility is located south of a sand or gravel operation, and the Mayhew Lake facility is located across the street from an inactive quarry.²¹⁶

183. No impacts to mining or mineral extraction are anticipated by the Project.²¹⁷

D. Archaeological and Historic Resources

184. LEPGP Site Permit criteria require consideration of the Project's effect on archaeological and historic resources.²¹⁸

185. Aurora requested a State Historic Preservation Office (SHPO) file search for each of the proposed facilities as well as surrounding buffer areas. The results of the SHPO file search provided a list of recorded historical, cultural, architectural, and archaeological resources, including any National Register of Historic Properties (NRHP) listed properties.²¹⁹

186. The SHPO records search identified recorded resources within the parcel boundary of the Mayhew Lake facility and within one mile of 8 of the 24 facilities (Atwater, Dodge Center, Hastings, Montrose, Pine Island, Pipestone, West Faribault, and Zumbrota).²²⁰

187. In the summer of 2014, an archaeological survey of the 24 facilities was conducted. The survey identified four archaeological sites at the Eastwood, Mayhew Lake, Lake Emily, and Paynesville facilities. SHPO concurred with the recommendation that none of the identified sites are eligible for inclusion in the NRHP. In addition to the

²¹⁴ Ex. 2 at 63 (Application); Ex. 31 at 54 (Environmental Assessment).

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ Ex. 31 at 54 (Environmental Assessment).

²¹⁸ Minn. Stat. § 216.E03, subd. 7(b)(1) (2014); Minn. R. 7850.4100(D) (2013).

²¹⁹ Ex. 2 at 64 (Application); Ex. 31 at 54 (Environmental Assessment).

²²⁰ *Id.*

archaeological sites, the survey report noted, but did not evaluate, potentially historic properties at the Mayhew Lake and Albany facilities.²²¹ If Aurora selects the Mayhew Lake facility for construction of a site, it will conduct additional architectural investigation of the building noted in SHPO records.²²²

188. The Pipestone facility is located approximately one-half mile from the southern boundary of the Pipestone National Monument, managed by the National Park Service. Because of its proximity to the Pipestone facility, Aurora provided a viewshed analysis to assess the potential for visibility of the facility from the Monument impacting the experience of a visitor to the Monument. The Monument's Superintendent concurred with Aurora's assessment that the facility will not create visual impacts for visitors to the Monument.²²³

189. Aurora will coordinate with SHPO in the event that new, unrecorded sites are discovered during any phase of the Project. Before the Project's construction, Aurora will prepare an unanticipated discoveries plan detailing a process for prompt communication and action regarding the discovery of previously unknown archaeological resources or human remains should they be encountered.²²⁴

E. Natural Environment

190. LEPGP Site Permit criteria require consideration of the Project's effect on the natural environment.²²⁵

1. Air Quality

191. Temporary short-term air quality impacts will occur during the construction phase of the Project. Once operational, the Project will not generate criteria pollutants or carbon dioxide.²²⁶

192. Short-term air emissions during the construction phase of the Project are anticipated as a result of vehicle exhaust from the construction equipment and from vehicles traveling to and from facility locations, as well as fugitive dust emissions due to travel on unpaved roads and limited amounts of excavation needed for foundations either for inverter boxes, or in some limited cases, the array piers.²²⁷

193. When necessary, dust from construction traffic will be controlled using standard construction practices such as watering of exposed surfaces, covering of disturbed areas, and reduced speed limits at each facility. Emission from construction

²²¹ Ex. 31 at 55 (Environmental Assessment).

²²² Ex. 2 at 65 (Application).

²²³ Ex. 31 at 55 (Environmental Assessment) (citing *Communication with Pipestone Monument* (July 22, 2014)).

²²⁴ Ex. 2 at 65 (Application).

²²⁵ Minn. Stat. § 216.E03, subd. 7(b)(1) (2014); Minn. R. 7850.4100(E) (2013).

²²⁶ Ex. 31 at 56 (Environmental Assessment).

²²⁷ Ex. 2 at 66 (Application); Ex. 31 at 56 (Environmental Assessment).

vehicles will be minimized by keeping construction equipment in a good working order.²²⁸

2. Soils and Groundwater

194. Construction of the facilities will disturb up to 1,200 acres of land. As with any ground disturbance, construction of the Project has the potential for soil compaction, erosion, and sedimentation.²²⁹

195. The use of best management practices, including but not limited to containment of excavated material, protection of exposed soil, stabilization of restored material, and treating stockpiles to control fugitive dust will protect topsoil and minimize the potential for soil erosion.²³⁰

196. The Site Permit should require Aurora to develop a soil erosion and sediment control plan for each facility prior to construction, and submit the plan to the Commission at least 14 days prior to the preconstruction meeting. This plan may be the same as the Storm Water Pollution Prevention Plan (SWPPP) required as part of the National Pollutant Discharge Elimination System permit Aurora will secure for the Project.²³¹ The SWPPP will identify BMPs Aurora will use to minimize the potential for soil erosion and sedimentation.²³²

3. Surface Water

197. There are no water courses or water basins identified on the MnDNR Public Waters Inventory (PWI) within any of the facilities.²³³

198. During construction, there is a possibility of sediment reaching nearby surface waters and wetlands due to ground disturbance activities.²³⁴ Such impacts are unlikely due to the fact that the Project generally avoids surface waters.²³⁵

199. The use of BMPs prescribed in the SWPPP will minimize the potential for soil erosion, sedimentation, and surface water impacts.²³⁶

200. The MnDNR has established minimum standards for city and county shoreland zoning to provide for the orderly development and protection of shorelands. State shoreland rules are implemented through county and city shoreland ordinances,

²²⁸ Ex. 2 at 66 (Application); Ex. 31 at 57 (Environmental Assessment).

²²⁹ Ex. 31 at 57 (Environmental Assessment).

²³⁰ *Id.*

²³¹ Ex. 31 at 57, 58 (Environmental Assessment); Comment by DOC-EERA (March 10, 2015) (eDocket No. 20153-108079-03).

²³² Ex. 31 at 59 (Environmental Assessment).

²³³ Ex. 31 at 58 (Environmental Assessment).

²³⁴ *Id.*

²³⁵ *Id.*

²³⁶ Ex. 31 at 59 (Environmental Assessment).

usually via shoreland overland districts. Shoreland zoning does not prohibit development activities from occurring within a shoreland area, but instead provides an additional layer of standards that development activities, permitted at the city and county level, must follow to reduce impacts on shoreland areas and associated surface waters.²³⁷

201. The MnDNR recommended that, in accord with the recommendation of the EA,²³⁸ the Project comply with local shoreland ordinances.²³⁹

202. The DOC-EERA reiterated its position that the location of the Project in areas designated as shoreland districts should be prohibited.²⁴⁰

203. Most of the facility locations are in agricultural land uses resulting in periodic cultivation and disturbance of land. Cultivation and land disturbance activities result in the erosion of soil, nutrient runoff into adjacent surface waters, and relatively unabated stormwater runoff.²⁴¹

204. The Project will reduce the nutrient, sediment, and stormwater runoff from the facilities during operation by planting low-growing perennial vegetation on developed facility areas, except for roads or where Project structures touch the ground. The implementation of these measures will result in the stabilization and responsible use of the land by the Project. Such measures are compatible with environmental preservation and the efficient use of resources, and will enhance the quality of adjacent surface waters.²⁴²

205. In general, water quality will be improved by the Project due to the vegetated, uncultivated state the land will be in after the facilities are constructed.²⁴³

206. As recommended by the MnDNR, a Site Permit condition requiring compliance with local shoreland ordinances is a reasonable method of assuring the consideration of shorelands.²⁴⁴

207. The permit should also include a condition providing that if compliance with any specific local shoreland ordinances will be impracticable due to the impact on the Project and Aurora believes there is no feasible and prudent alternative, Aurora may apply to the Commission for an exception to the permit requirement governing shorelands on a location-by-location basis.

²³⁷ Reply Comments (March 10, 2015) (eDocket No. 20153-10807-01).

²³⁸ Ex. 31 at 59 (Environmental Assessment).

²³⁹ Comment by MnDNR (February 23, 2015) (eDocket No. 20152-107592-01).

²⁴⁰ Comment by DOC-EERA at 25 (March 10, 2015) (eDocket No. 20153-108079-01).

²⁴¹ Ex. 35 at 8 (Smith Direct); Reply Comments (March 10, 2015) (eDocket No. 20153-108074-01).

²⁴² Ex. 35 at 8 (Smith Direct).

²⁴³ *Id.*

²⁴⁴ Comment by MnDNR (February 23, 2015) (eDocket No. 20152-107592-01).

4. Wetlands and Floodplains

208. Construction and maintenance of the facilities has the potential to result in long-term and temporary loss of wetlands or wetland function.²⁴⁵ The preferred method for minimizing impacts to wetlands is to avoid disturbance of the wetland through project design.²⁴⁶

209. Wetlands present within Project facilities are typically small wetlands that have been farmed or are otherwise disturbed. Wetland function and quality is typically low in most of the wetlands involved.²⁴⁷

210. Section 5.2 of the Site Permit template provided by Commission staff in this case requires solar panels and associated facilities not be placed in public water wetlands, as defined in Minn. Stat. § 103G.005, subd. 15(a) (2014). Under the definition, public water wetlands include types 3, 4, and 5 wetlands of ten or more acres in unincorporated areas or 2.5 acres in incorporated areas. Field delineations identified type 3 (shallow marshes) and type 4 (deep marshes) at the Albany, Eastwood, Lawrence Creek, Montrose, West Waconia, and Wyoming facility sites, all of which are smaller than the statutory standard for meeting the definition of a public water wetland.²⁴⁸

211. Grading, access roads, and inverter placement in wetlands or other jurisdictional waters will constitute a permanent impact requiring a permit under section 404 of the Clean Water Act (CWA) and the Wetland Conservation Act (WCA).²⁴⁹ The solar array and structural piers are not expected to result in jurisdictional fill of wetlands or jurisdictional waters.²⁵⁰

212. Indirect impacts to wetlands may occur during construction due to ground disturbance activities and during operation of the Project due to shading.²⁵¹

213. Wetland delineations were completed for the facilities in 2014. Aurora used the results of the wetland delineations during Project design activities to avoid and minimize wetland impacts to the extent practicable.²⁵²

214. The EA noted that wetland A in the Paynesville facility may be classified as a public water wetland due to its size.²⁵³ The MnDNR confirmed that Wetland A is not a public water wetland subject to its jurisdiction because Wetland A is not included

²⁴⁵ Ex. 31 at 60 (Environmental Assessment).

²⁴⁶ *Id.*

²⁴⁷ Ex. 2 at 72 (Application).

²⁴⁸ Ex. 31 at 60 (Environmental Assessment).

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ *Id.*

²⁵² Ex. 31 at 61 (Environmental Assessment).

²⁵³ Ex. 31 at 61 (Environmental Assessment).

on the PWI maps prescribed by Minnesota Statute section 103G.201.²⁵⁴ The MnDNR also confirmed that Wetland A is subject to the WCA, and Aurora went through the proper procedures for avoidance minimization and replacement of wetland impacts for the Paynesville facility.²⁵⁵ Aurora received wetland permits for the Paynesville facility under the WCA. Aurora also received Department of the Army General Permit RGP-03-MN under CWA Section 404 for jurisdictional wetland impacts at the Paynesville facility.²⁵⁶ The WCA permit for Paynesville confirmed that the placement of solar panel mounting posts in wetlands does not constitute a loss of wetlands; therefore, no replacement plan is required.²⁵⁷

215. Aurora will continue to secure applicable wetland permits for unavoidable temporary and permanent jurisdictional wetland impacts, if any, at facilities included in the Project.²⁵⁸

216. In its comment letter dated February 24, 2015, Aurora proposed revising section 5.2 of the Site Permit to clarify that the permit precludes construction of Project elements on public wetlands shown on the public water inventory maps. The DOC-EERA agreed that Aurora's proposed modifications help clarify the types of wetlands off-limits for construction.²⁵⁹

217. It is reasonable to expect Aurora to use information within the PWI maps during Project development, and the specific representation of a wetland in a readily accessible agreed-upon source provides guidance and minimizes the potential for confusion about the types of wetlands subject to layout restrictions.²⁶⁰

218. The Site Permit should be revised to provide that solar panels and associated facilities, including foundations, access roads, underground cable and transformers, shall not be placed in public water wetlands as shown on the PWI maps prescribed by Minn. Stat. § 103G.201, and defined in Minn. Stat. § 103G.005, subd. 15(a), except electric collector or feeder lines may cross or be placed in public waters or public water wetlands subject to permits and approvals by the MnDNR, the United States Army Corps of Engineers, and local units of government as implementers of the WCA.²⁶¹

²⁵⁴ Ex. 35 at 16 (Smith Direct).

²⁵⁵ Ex. 35 at 15 (Smith Direct).

²⁵⁶ Ex. 35 at 5 (Smith Direct).

²⁵⁷ Ex. 35 at 10 (Smith Direct).

²⁵⁸ Ex. 35 at 5 (Smith Direct).

²⁵⁹ Comment by DOC-EERA at 24 (March 10, 2015) (eDocket No. 20153-108079-01).

²⁶⁰ Comment by DOC-EERA at 25 (March 10, 2015) (eDocket No. 20153-108079-01).

²⁶¹ Reply Comments (February 24, 2015) (eDocket No. 20152-107592-02).

5. Vegetation

219. The facility locations have been selected, in part, to avoid known areas of native plant communities.²⁶²

220. Consistent with the current agricultural land use at the facility locations, native plant communities are generally absent from facility locations, and the majority of vegetative cover has been established and maintained by humans.²⁶³

221. Construction and operation of the Project will change the vegetative cover of up to 1,200 acres of land for at least the 25-year expected lifespan of the Project. Vegetative cover will be converted from primarily agricultural uses to a low-growing perennial vegetative community. Aurora will select weed-free low-growing seed mixes consistent with each facility's soil type and hydrology.²⁶⁴

222. The Site Permit should require a vegetation management plan, such as required by Commission permits for high voltage transmission lines, to be developed to identify measures to minimize the disturbance and removal of vegetation, prevent the introduction of noxious weeds and invasive species, and re-vegetate and maintain appropriate vegetation in disturbed areas in a manner consistent with the safe and reliable operation of the Project.²⁶⁵

223. In some locations, trees may be removed from the development area and possibly the larger facility land control area to reduce shading of the PV arrays. Aurora may also seek voluntary agreements with neighboring landowners to conduct tree trimming on adjacent parcels if shading of the arrays becomes a concern.²⁶⁶

6. Wildlife

224. The vegetative cover at the proposed facility locations is dominated by cultivated agricultural field and to a lesser extent by pasturelands. These cover types of vegetation are typically used by common wildlife species accustomed to agricultural habitats.²⁶⁷ It is anticipated these species use of the facility locations is largely limited to occasional foraging and sheltering in the wooded areas, if any, that may surround the fields.²⁶⁸

225. Wildlife residing within the construction zone will be temporarily displaced to adjacent habitats during the construction process. The wildlife species near the

²⁶² Ex. 31 at 62 (Environmental Assessment).

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ Ex. 31 at 63 (Environmental Assessment); Comment by DOC-EERA (February 24, 2015) (eDocket No. 20152-107592-01); Comment by DOC-EERA at 30 (March 10, 2015) (eDocket No. 20153-108079-01).

²⁶⁶ Ex. 31 at 62 (Environmental Assessment).

²⁶⁷ Ex. 31 at 63 (Environmental Assessment).

²⁶⁸ *Id.*

facilities generally do not require specialized habitats and are able to find suitable habitat nearby.²⁶⁹

226. After construction, the low-growing perennial vegetation may be attractive to some species but less attractive to species seeking open farm and pasture lands.²⁷⁰ The perennial vegetation will also provide for pollinator habitat throughout the life of the Project.

227. Fencing around facilities may preclude access for larger wildlife.²⁷¹ Siting of facilities in locations to avoid or minimize impacts to known wildlife movement corridors can minimize impacts to wildlife. Known wildlife corridors can be identified during the biological and natural resource surveys required by the Site Permit.²⁷²

228. The use of underground electrical lines will minimize impact to birds.²⁷³

229. The Project may result in other hazards to birds, including water fowl, such as attracting and trapping them or resulting in death upon impact if they mistake the PV panels for water.²⁷⁴

230. Avoiding the use of photodegradable erosion-control materials where possible and using biodegradable materials instead can minimize the impact to wildlife.²⁷⁵ Aurora has committed to using wildlife-friendly erosion-control mesh where the Blanding's turtle may be found.²⁷⁶

231. As recommended by the MnDNR, the Site Permit should contain a condition requiring incidental monitoring and periodic reporting of any wildlife concerns arising from operation of the solar facilities, including the potential destruction of bird nests, as well as wildlife injuries and fatalities.²⁷⁷

232. The Site Permit should also require a modification to the design of the security fence to follow the MnDNR's recommendation that a one to two foot span of monofilament cables or barbless wire at 45 degrees outward from the top of the fence be used in lieu of the top one foot of barbed wire proposed by Aurora.²⁷⁸

²⁶⁹ *Id.*

²⁷⁰ Ex. 31 at 64 (Environmental Assessment).

²⁷¹ *Id.*

²⁷² Comment by DOC-EERA at 31-32 (March 10, 2015) (eDocket No. 20153-108079-01).

²⁷³ Ex. 31 at 64 (Environmental Assessment). The finding corrects an apparent misstatement in the EA that use of overhead transmission lines will minimize impact to birds. Overhead transmission lines, when not properly sited or constructed, can result in bird mortality. No overhead transmission lines are proposed for the Project.

²⁷⁴ Ex. 2, Appendix A (Application)

²⁷⁵ Ex. 31 at 64 (Environmental Assessment).

²⁷⁶ Ex. 2 at 80 (Application).

²⁷⁷ Comment by MnDNR (February 24, 2015) (eDockets Nos. 20152-107592-01, 20152-107592-02, 20152-107592-03, 20152-107592-04).

²⁷⁸ *Id.*

233. The MnDNR's suggested fence perimeter setback of 25-50 feet from highway right-of-way to avoid pushing wildlife onto roadways can be addressed by a Site Permit requirement that the permittee describe, in its site plan, these considerations when establishing the placement of fencing.²⁷⁹

F. Rare and Unique Natural Resources

234. The NHIS, MnDNR, and U.S.FWS have been consulted to identify potential rare species in or near the proposed Project. There are no known records of federally protected species within the land control boundary of any facility.²⁸⁰ There are no known records of state or federally listed species within one-mile of 11 of the proposed facilities.²⁸¹ At least one endangered, threatened, or special concern species has been documented at the Chisago, Pine Island, Pipestone, and Zumbrota facilities.²⁸² No suitable habitat for sensitive species is now present at the Pine Island and Pipestone facilities due to the existing agricultural use of the facilities.²⁸³ Suitable habitat is not present at the Chisago facility for seven of the eight species documented to be in the vicinity of the Chisago facility.²⁸⁴ Suitable nesting habitat may be present at the Chisago facility for Blanding's turtles.²⁸⁵ It is unlikely that the Zumbrota facility provides the habitat required for the three vascular plant species documented in the NHIS.²⁸⁶

235. Known records of Blanding's turtles have been documented near the Chisago, Wyoming, and Scandia facilities.²⁸⁷ Aurora will use wildlife-friendly erosion control mesh for the Chisago, Wyoming, and Scandia facilities, and will provide training to construction workers so they can identify and avoid impacts to Blanding's turtles at those facilities.²⁸⁸

236. Known records of three unique natural resource plant communities have been documented in or near the Dodge Center, Paynesville, and Pine Island facilities.²⁸⁹ Aurora has reviewed its preliminary site designs in relation to the mapped communities and committed to avoiding Project impacts to those plant communities.²⁹⁰

²⁷⁹ *Id.*

²⁸⁰ Ex. 2 at 81 (Application).

²⁸¹ *Id.*

²⁸² *Id.*

²⁸³ *Id.*

²⁸⁴ *Id.*

²⁸⁵ Ex. 2 at 82 (Application).

²⁸⁶ Ex. 2 at 83 (Application).

²⁸⁷ Ex. 2, Appendix A (Application).

²⁸⁸ Ex. 2 at 83 (Application).

²⁸⁹ Ex. 31 at 106, 181, 189 (Environmental Assessment).

²⁹⁰ Ex. 35 at 6 (Smith Direct).

G. Application of Various Design Considerations

237. LEPGP Site Permit criteria require consideration of the Project's applied design options to maximize energy efficiencies, mitigate adverse environmental effects, and accommodate expansion of transmission or generating capacity.²⁹¹

238. The Project is able to make efficient use of existing transmission facilities equipment by locating in close proximity to existing substations.²⁹² Because each facility will be located at a distribution substation, the Project will experience substantially lower losses than most conventional power plants. In addition, the distribution level interconnections will have less lead time, lower risk and lower cost than typical transmission interconnections.²⁹³

239. The geographic dispersion of the Project increases its reliability, because the total Project will be less susceptible to outages due to equipment failure or transmission outage.²⁹⁴

H. Use or Paralleling of Existing Right-of-Way, Survey Lines, Natural Division Lines, and Agricultural Field Boundaries

240. LEPGP Site Permit criteria require consideration of the Project's use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries.²⁹⁵

241. Aurora is responsible for all land acquisition and has obtained the necessary easements or purchase agreements from landowners at all of the facility locations.²⁹⁶

I. Use of Existing Large Electric Power Generating Plant Site

242. LEPGP Site Permit criteria require consideration of the Project's use of existing LEPGP sites.²⁹⁷

243. The Project uses existing substations and subsidiaries to existing sites to make efficient use of existing transmission facilities equipment.²⁹⁸

²⁹¹ Minn. Stat. § 216.E03, subd. 7(b)(3) (2014); Minn. R. 7850.4100(G) (2013).

²⁹² Ex. 2 at 13 (Application).

²⁹³ Ex. 2 at 2 (Application).

²⁹⁴ *Id.*

²⁹⁵ Minn. Stat. § 216E.03, subd. 7(b)(8)-(9) (2014); Minn. R. 7850.4100(H) (2013).

²⁹⁶ Ex. 2 at 8 (Application).

²⁹⁷ Minn. R. 7850.4100(I) (2013).

²⁹⁸ Ex. 2 at 13 (Application).

J. Use of Existing Transportation, Pipeline, and Electrical Transmission System Rights-of-Way

244. LEPGP Site Permit criteria require consideration of the Project's use of existing transportation, pipeline, and electrical transmission system rights-of-way.²⁹⁹

245. Because the facilities will connect directly to the electrical distribution system, the Project lacks transmission interconnection requirements.³⁰⁰

K. Electrical System Reliability

246. LEPGP Site Permit criteria require consideration of the Project's impact on electrical system reliability.³⁰¹

247. The distributed nature of the Project eliminates the potential for single point source failure. The nature of solar power is to provide a peak power reduction by providing power when the sun is out and power use is typically greatest.³⁰²

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

248. LEPGP Site Permit criteria require consideration of the Project's cost of construction, operation, and maintenance.³⁰³

249. Total construction costs for the Project are estimated to be approximately \$247 million. Operating costs for the Project are estimated to be approximately \$2.3 million on an annual basis, including labor, materials and property taxes.³⁰⁴

M. Adverse Human and Natural Environmental Effects Which Cannot be Avoided

250. LEPGP Site Permit criteria require consideration of the adverse human and natural environmental effects which cannot be avoided.³⁰⁵

251. Socioeconomic impacts from the Project will be primarily positive with an influx of jobs, wages, and expenditures made at local businesses during construction of the Project as well as jobs during the operation of the Project.³⁰⁶ Some government officials expressed concern about the facilities impeding the projected growth of their

²⁹⁹ Minn. Stat. § 216E.03, subd. 7(b)(8) (2014); Minn. R. 7850.4100(J) (2013).

³⁰⁰ Ex. 2 at 25 (Application).

³⁰¹ Minn. R. 7850.4100(K) (2013).

³⁰² Chisago Tr. at 8 (February 9, 2015).

³⁰³ Minn. R. 7850.4100(L) (2013).

³⁰⁴ Ex. 2 at 19 (Application).

³⁰⁵ Minn. Stat. § 216E.03, subd. 7(b)(6) (2014); Minn. R. 7850.4100(M) (2013).

³⁰⁶ Ex. 31 at 33 (Environmental Assessment).

communities.³⁰⁷ However, no evidence of imminent or proposed commercial or industrial uses for the project land was submitted.

252. Property values are influenced by a complex interaction of factors specific to individual parcels, including condition, improvements, acreage, neighborhood characteristics, and proximity to schools, parks, and other amenities, as well as market conditions.³⁰⁸

253. Widespread negative impacts to the properties are not anticipated. Because property value is determined by factors specific to individual parcels, impact to individual parcels is difficult to determine. Landscaping plans can be used to minimize visual impacts to adjacent land uses.³⁰⁹

N. Irreversible and Irretrievable Commitments of Resources

254. LEPGP Site Permit criteria require consideration of irreversible and irretrievable commitments of resources.³¹⁰

255. This factor is addressed below.

XI. Summary of Human and Environmental Impacts and Commitment of Resources

256. The Project has human and environmental impacts, some of which are unavoidable if the Project is permitted and built. The Project is not expected to cause an irreversible or irretrievable commitment of resources, except for the use of fossil fuels for electricity and the operations of vehicles and equipment, the use of raw building materials for construction, the use of water for dust abatement during construction activities, and the commitment of labor and fiscal resources to develop and build the Project.

257. The factors to be considered under Minn. R. ch. 7850 reflect competing interests. For example, the prime farmland exclusion under Minn. R. 7850.4400 does not apply in areas designated for orderly annexation, which suggests that, if the use of agricultural land cannot be avoided, the law favors usage in areas already slated for potential development.³¹¹ However, as illustrated in the record of this case, municipalities may object to the placement of the Project in areas they believe are appropriate for future development.

258. At the Annandale, Mayhew Lake, Wyoming, and Zumbrota Project sites, municipalities have cited the placement of the Project in orderly annexation areas as

³⁰⁷ Comments (September, 20, 2014) (eDocket No. 20149-103467-01).

³⁰⁸ Ex. 31 at 35 (Environmental Assessment).

³⁰⁹ *Id.*

³¹⁰ Minn. Stat. § 216E.03, subd. 7(b)(10) (2014).

³¹¹ Minn. R. 7850.4400, subp. 4 (2013).

inconsistent with the state goals of conserving resources and land use conflicts set forth, in Minn. R. 7850.4000. The DOC-EERA concurs with the municipalities concerns.

259. However, there is, no evidence in the record suggesting that the Annandale, Mayhew Lake, Wyoming, and Zumbrota sites are expected to be developed in the near future. Therefore, development of PV facilities on these sites is not clearly a land use conflict or a misuse of state resources. At the public hearing in Zumbrota, a land owner commented that his land had been for sale for 13 years before representatives from the Project expressed interest in obtaining the land for a solar facility.³¹² Presumably, landowners who have willingly sold or leased their land to Aurora at other sites also would have done so earlier if better opportunities had been presented to them.

260. After careful review of the record as a whole, the Administrative Law Judge concludes that the Project minimizes human, economic, and environmental impacts to the extent practicable with the mitigation plans and other permit conditions recommended by the DOC-EERA, the MnDNR, and the Minnesota Department of Agriculture.

XII. Site Permit Conditions

261. The Site Permit template filed by Commission staff on December 23, 2014, includes a number of proposed permit conditions. The conditions apply to site preparation, construction, cleanup, restoration, operation, maintenance, abandonment, decommissioning, and all other aspects of the Project.³¹³

262. Many of the conditions contained in the Site Permit template were established as part of the Site Permit proceedings for wind turbine projects permitted by the Commission under Minnesota Statute section 216F and Minnesota Rule part 7854 (Wind Laws).

263. On February 6, 2015, and February 24, 2015, Aurora provided suggested changes to the Site Permit template. Many of the suggested revisions are meant to clarify or correct permit provisions to reflect that the Project is subject to Minn. Stat. § 216E and Minn. R. ch. 7850 (Power Plant Siting Act) and not the Wind Laws.³¹⁴ A few proposed revisions are more substantive, including:

- Changing the cover page and sections 1.0 (Site Permit), 2.1 (project ownership) and 12.5 (transfer of permit) of the Site Permit template to recognize each SPV as having the rights and responsibilities of permittee for the related facility.

³¹² Faribault Tr. at 22-23 (February 11, 2015) (Nord).

³¹³ Ex. 27 (Site Permit Template).

³¹⁴ Ex. 36 (Franzen Direct); Comments (February 24, 2015) (eDocket Nos. 20152-107623-01, 20152-107623-02).

- Changing the language in sections 6.1 (site plan), 6.5 (site manager), 6.7 (pre-construction meeting), 7.2 (archaeological resources) to reflect the likely iterative approach Aurora will take to construct the Project on a facility-by-facility basis.
- Revising sections 2.1 (project ownership), 12.1 (periodic review), and 12.2 (modification of conditions), 7.4 (project energy production), and 7.5 (photovoltaic resource use) to clarify that a violation or default under the Site Permit as to one facility does not result in a violation, default, or potential revocation of the Site Permit as to other facilities.
- Revising section 7.3 (interference) to more accurately reflect that interference from PV solar facilities is unlikely, but if it does occur, the permittee will take necessary measures to coordinate with any person affected by communication disruptions caused by the Project.
- Changing the language in section 8.9.1 to reflect that Aurora is unlikely to cause damage to roads due to a lack of oversize or overweight trucks on roads due to the construction and operation of the Project and road use agreements with local road jurisdictions are not necessary.
- Changing the language in section 5.1 to more accurately reflect the statutory provisions prohibiting the placement of solar facilities on certain public lands.
- Changing the language in section 5.2 (wetlands) to reflect that MnDNR jurisdiction is over public waters mapped in the PWI maps prescribed by Minnesota Statute section 103G.201.
- Revising language in section 8.17 (application of herbicides) to reflect that there is no publically available list of beekeepers or apiaries in Minnesota, but that a permittee should provide notice to known beekeepers operating apiaries within one mile of herbicide application prior to such application.
- Separating the language in section 12.5 of the original Site Permit template provided by the Commission into sections 12.5 (transfer of permit) and 12.6 (notice of ownership) to avoid confusion with implementation of such provisions by the permittee post permit issuance. Section 12.6 has also been revised to remove unnecessary and redundant notice provisions.
- Revising language in section 14.1 (Blanding's turtles) to clarify that implementation of measures to minimize impacts to Blanding's turtles should only apply to those facilities where Blanding's turtles may be present.

264. On March 10, 2015, the DOC-EERA provided responses to Aurora's proposed Site Permit revisions. DOC-EERA comments agreed with many of Aurora's proposed changes, took exception to several of Aurora's Proposed Changes, and proposed new conditions based on a review of the record, including public and agency comments received during the public comment period. Proposed changes to Aurora's proposed Site Permit include:

- Designation of Aurora Distributed Solar, L.L.C., acting on behalf of the designated SPVs, as the sole permittee for the Project.
- Addition of a summary table of compliance filings.
- Clarifications of siting restrictions in certain classes of public lands.
- Clarification of siting restrictions in wetlands and additional restrictions in shoreland.
- Clarification that separate site plans are anticipated for each facility.
- Requiring that a landscaping plan be provided for each facility.
- Requiring that an agricultural mitigation plan be prepared for the Project in coordination with the Minnesota Department of Agriculture.
- Requiring that a vegetation management plan be developed for the Project in cooperation with the Minnesota Department of Commerce and the MnDNR.
- Ensuring that one site manager is designated for all facilities.
- Adding existing wildlife corridors to the items identified in biological and natural resource inventories prepared prior to Project construction.
- Adding wildlife injuries and fatalities to the types of extraordinary events that should be reported upon discovery.
- Requiring that perimeter fencing and vegetative screening be located so as to allow for continued safe maintenance and travel on public roads.
- Clarifying that solar arrays or Facilities that are abandoned prior to termination of the Project be decommissioned and restored.
- Clarification that the Commission's periodic review and potential modification of conditions may be for the Project as a whole or for individual facilities.

- Adding a special condition requiring Aurora to ensure that impacts to rare and unique natural communities at the Dodge Center, Paynesville, and Pine Island facilities be avoided.

265. Any of the foregoing findings, which more properly should be designated as conclusions, are hereby adopted as such.

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

CONCLUSIONS OF LAW

1. The Commission and the Administrative Law Judge have jurisdiction over the Site Permit applied for by Aurora for the up to 100 MW proposed Project pursuant to Minn. Stat. § 216E.04.

2. The Project is exempt from Certificate of Need requirements.

3. Aurora has substantially complied with the procedural requirements of Minn. Stat. ch. 216E and Minn. R. ch. 7850.

4. The Commission has complied with all procedural requirements required by Minn. Stat. ch. 216E and Minn. R. ch. 7850.

5. The DOC-EERA has conducted an appropriate environmental analysis of the Project for purposes of this Site Permit proceeding, and the EA satisfies Minn. R. 7850.3700. Specifically, the EA and the record address the issues and alternatives identified in the Scoping Decision to a reasonable extent considering the availability of information, including the items required by Minn. R. 7850.3700, subp. 4, and was prepared in compliance with the procedures in Minn. R. 7850.3700.

6. Public hearings were conducted in communities near the sites proposed for the Project. Proper notice of the public hearings was provided, and the members of the public were given the opportunity to speak at the hearings and to submit written comments.

7. The Commission has the authority under Minn. Stat. § 216E.04 to place conditions in a Site Permit for a solar facility.

8. The Site Permit template contains a number of important mitigation measures and other reasonable conditions subject to the modifications set forth below.

9. The Site Permit should include the DOC-EERA's proposed Site Permit conditions, including but not limited to the Pre-Construction Compliance filing, unless those conditions are in conflict with the conclusions above and these recommendations.

10. The Site Permit should include Aurora's proposed Site Permit conditions unless those conditions are in conflict with the DOC-EERA's proposed Site Permit conditions, the conclusions above or these recommendations.

11. It is reasonable and appropriate for the Site Permit to: (1) be issued to Aurora Distributed Solar, LLC and to clearly state that Aurora Distributed Solar, LLC, acting on behalf of itself and each SPV is the permittee for the Project; (2) require the Permittee to identify one Site Manager; and (3) require that the Site Permit be transferred only in compliance with Minn. R. 7850.5000.

12. The Site Permit should clearly state that the Project cannot be located in federal Waterfowl Production Areas.

13. It is reasonable and appropriate for the Site Permit to require compliance with local shoreland ordinances with a provision for potential exceptions to the permit requirement governing shorelands on a location-by-location basis.

14. It is reasonable and appropriate for the Site Permit to require that a landscaping plan that addresses, but is not limited to, consideration of perimeter fencing placement with regard to public safety and wildlife concerns, be submitted as part of the plan for each site facility.

15. The Site Permit should include a requirement that Aurora prepare an agricultural mitigation plan for the Project.

16. The Site Permit should include a requirement that Aurora, in coordination with the MnDNR, prepare a vegetation management plan.

17. The Site Permit should include a requirement that the security fence design be altered to be a 7-foot chain link fence topped by a 1 to 2 foot extension at 45 degrees outward that carries monofilament cables or barbless wire.

18. The Site Permit should require identification of existing wildlife corridors, and reporting of nesting bird disturbance, wildlife injuries, and fatalities.

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

20. The Project, with the permit conditions discussed above, does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act³¹⁵ and the Minnesota Environmental Policy Act³¹⁶.

³¹⁵ Minn. Stat. ch. 116B (2014).

³¹⁶ Minn. Stat. ch. 116D (2014).

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

Based on the foregoing Findings of Fact, Conclusions of Law, and the record in this proceeding, the Administrative Law Judge makes the following:

RECOMMENDATIONS

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

2. The Commission should grant Aurora a Site Permit for the 100 MW LEPGP for the Aurora Distributed Solar Project in multiple counties in Minnesota.

3. The Site Permit template conditions should be incorporated into the Site Permit, unless modified herein.

4. Aurora should be required to take those actions necessary to implement the Commission's orders in this proceeding.

Dated: April 9, 2015

s/Barbara J. Case
BARBARA J. CASE
Administrative Law Judge

NOTICE

This Report is not an order and no authority is granted herein. The Minnesota Public Utilities Commission will issue the order of authority which may adopt or differ from the recommendation.



MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS

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April 9, 2015

See Attached Service List

**Re: In the Matter of the Site Permit Application for the 100 MW Aurora
Distributed Solar Energy Project at Multiple Facilities in Minnesota**

**OAH 82-2500-31886
MPUC E-6928/GS-14-515**

To All Persons on the Attached Service List:

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

If you have any questions, please contact my legal assistant Kendra McCausland at (651) 361-7870 or kendra.mccausland@state.mn.us.

Sincerely,

s/Barbara J. Case

BARBARA J. CASE
Administrative Law Judge

BJC:klm
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 Site Permit Application for the 100 MW Aurora Distributed Solar Energy Project at Multiple Facilities in Minnesota	OAH Docket No.: 82-2500-31886
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Kendra McCausland certifies that on April 9, 2015 she served the true and correct **FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDATION** by eService, and U.S. Mail, (in the manner indicated below) to the following individuals:

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes
Barbara	Case	barbara.case@state.mn.us	Office of Administrative Hearings	600 N. Robert St. St. Paul, Mn. 55101	Electronic Service	Yes
Jeremy	Duehr	jduehr@fredlaw.com	Fredrikson & Byron, P.A.	200 South Sixth Street Suite 4000 Minneapolis, Minnesota 55402-1125	Electronic Service	No
Betsy	Engelking	betsy@geronimoenergy.com	Geronimo Energy	7650 Edinborough Way Suite 725 Edina, MN 55435	Electronic Service	No
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	Yes
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes
David	Post	David.Post@enel.com	Enel Green Power North America	7650 Edinborough Way Ste 725 Edina, MN 55435	Electronic Service	No
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	Ste 122 9100 W Bloomington Frwy Bloomington, MN 55431	Electronic Service	Yes
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes