

Staff Briefing Papers

Meeting Date	November 25, 2020	Agenda Item #2*
Company	Elk Creek Solar, LLC	
Docket No.	IP-7009/CN-19-351 (Certificate of Need) IP-7009/WS-19-495 (Site Permit)	
	In the Matter of the Application of Elk Creek Solar, LLC for a Certificate of Need for the up to 80-Megawatt Elk Creek Solar Project in Rock County, Minnesota	
	In the Matter of the Application of Elk Creek Solar, LLC for a Site Permit for the up to 80-Megawatt Elk Creek Solar Project in Rock County, Minnesota	
Issues	Should the Commission find that the Environmental Assessment and the record on this project adequately address the issues identified in the Scoping Decision? Should the Commission approve the proposed findings of fact? Should the Commission grant a certificate of need for the Elk Creek Solar Project? Should the Commission issue a site permit for the proposed solar photovoltaic electric generating facility?	
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Relevant Documents

Date

Certificate of Need Application (4 parts, 19-351)

September 13, 2019

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.



Relevant Documents

Date

Elk Creek Site Permit Application (11 Parts, 19-495 only)	September 13, 2019
Elk Creek Site Permit Application – Appendix A Parts 2 and 3 (19-495 only)	September 16, 2019
Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process	December 23, 2019
Notice of Comment Period on the CN Application (19-351 only)	January 10, 2020
EERA Environmental Assessment Scoping Decision	February 6, 2020
DER Comments (19-351 only)	April 8, 2020
Elk Creek Reply Comments (19-351 only)	April 17, 2020
EERA Environmental Assessment (13 Parts)	June 17, 2020
EERA Environmental Assessment - Figure 8	June 18, 2020
Notice of Public Hearing and Comment Period	June 29, 2020
Elk Creek Testimony (4 parts)	July 17, 2020
DNR Comments (19-495 only)	July 21, 2020
LIUNA Comments	July 24, 2020
International Union of Operating Engineers, Local 49 (19-351 only)	July 27, 2020
Minnesota Department of Agriculture Comments	August 10, 2020
Public Comments (2 parts)	August 12, 2020
Elk Creek Proposed Findings of Fact, Conclusions of Law and Recommendation	August 20, 2020
EERA Comments on Proposed Findings of Fact Conclusions of Law and Recommendation	September 24, 2020
Elk Creek Responses to Public Comments	October 5, 2020
OAH Summary Report of Public Comments	October 9, 2020
DOC EERA Comments on Proposed Findings of Fact and Conclusions of Law and Recommendation	September 24, 2020
Elk Creek Responses to Public Comment	October 5, 2020
OAH Summary Report of Public Comments	October 9, 2020

Attachments

Proposed Findings of Fact, Conclusions and Recommendation
Proposed Site Permit

I. Statement of the Issues

Should the Commission find that the Environmental Assessment and the record on this project adequately address the issues identified in the Scoping Decision?

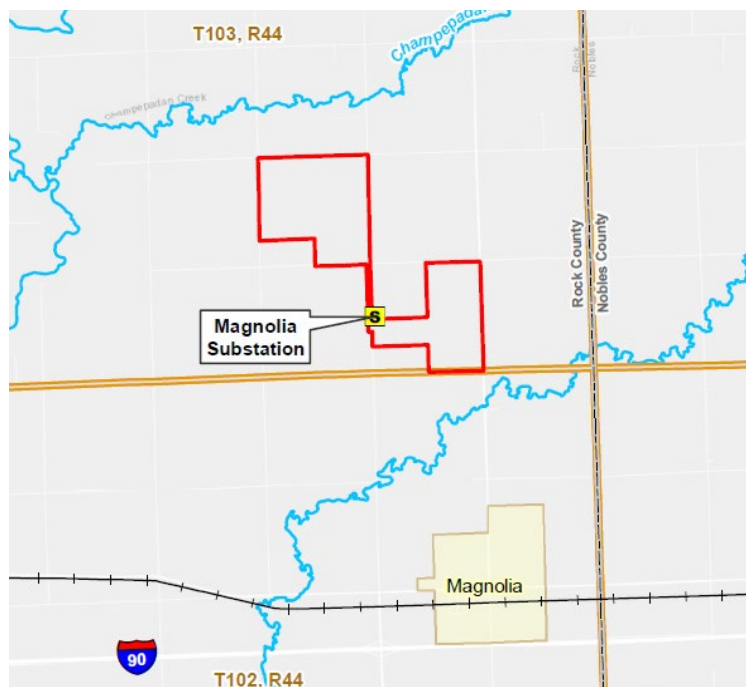
Should the Commission approve the proposed findings of fact?

Should the Commission grant a certificate of need for the Elk Creek Solar Project?

Should the Commission issue a site permit for the proposed solar photovoltaic electric generating facility?

II. Project Description

Elk Creek Solar, LLC (Elk Creek), a Delaware limited liability company owned by Geronimo Energy (now part of National Grid Renewables), has filed certificate of need and site permit applications with the Commission to construct and operate the Elk Creek Solar Project (project), a solar energy conversion facility with an 80-megawatt (MW) alternating current nameplate capacity, in Vienna Township, Rock County, Minnesota.



The components of the proposed project include solar panels and racking; inverters, security fencing, a Project substation, gravel access roads, an operations and maintenance building, on-site below-ground, above-ground or a hybrid combination of above-ground and below-ground electrical collection and communication lines, and up to two weather stations.

Xcel Energy has entered into a power purchase agreement with Elk Creek for the power to be generated by the Project and intends to use the renewable energy from the Project to satisfy the growing demand for Xcel Energy's customers under its Renewable*Connect Program. Commercial operation of the Project is anticipated by fourth quarter 2021.

III. Procedural History

On May 28, 2019, Elk Creek filed a Request for Exemption from Certain Certificate of Need Application Content Requirements with the Commission requesting exemptions from certain Certificate of Need data requirements.¹

On August 19, 2019, the Commission issued an order approving Elk Creek's data exemption requests.²

Elk Creek filed its certificate of need application with the Commission on September 13, 2019. On the same day, Elk Creek submitted a site permit application under the Commission's alternative review process. On September 16, Elk Creek filed two additional parts to Appendix A of its site permit application.

On September 20, 2019, the Commission issued a Notice of Comment Period on completeness of the certificate of need and Site Permit applications.³ Comments were accepted through October 4, 2019 and reply comments through October 11, 2019.

On December 23, 2019, the Commission issued an *Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process*. The order directed that the site permit application review process be conducted concurrently with the certificate of need application review process to the extent practicable. The order also authorized an informal review of the certificate of need using a comment and reply period, and review of the site permit Application under the alternative permitting process.

On January 10, 2020, the Commission issued a Notice of Comment Period on the Merits of the Certificate of Need Application (Revised).

¹ Request for Exemption, e-Dockets, No. [20195-153170-01](#), May 28, 2019.

² Order Granting Exemption Requests, e-Dockets No. [20198-155289-01](#), August 19, 2019.

³ Notice of Comment Period on Application Completeness, e-Dockets No. [20199-155976-02](#), September 20, 2019.

On January 13, 2020, Commission and Department of Commerce Energy Environmental Review and Analysis (EERA) staff held a public information and environmental assessment scoping meeting in the City of Luverne.

On February 6, 2020, the Department issued its Environmental Assessment Scoping Decision.

On April 8, 2020, the Minnesota Department of Commerce Division of Energy Resources (DER) filed its comments on the merits of the certificate of need application.

On May 5, 2020, Administrative Law Judge (ALJ) Jessica A. Palmer-Denig of the Office of Administrative Hearings issued a Scheduling Order⁴ that established the schedule for review of the applications.

On June 17, 2020, the EERA Staff issued the Environmental Assessment (EA) for the Project.

On June 29, 2020, the Commission issued Notice of Public Hearing and Comment Period.

On July 17, 2020, Elk Creek filed the direct testimony of Melissa Schmit, Michael Morris and Jordan Burmeister.

On July 21, 2020, the Minnesota Department of Natural Resources (DNR) filed comments on the site permit application.

On July 23, 2020, Elk Creek filed the direct testimony of Melissa Schmit, Michael Morris and Jordan Burmeister.

On July 23, 2020, the ALJ presided over a joint public hearing on the certificate of need and site permit applications via remote access. Approximately four members of the public spoke at the hearing. Several additional written comments were received on the project before the close of the comment period on August 10, 2020.

On July 24, 2020, the Laborers International Union of North America (LIUNA) filed comments on the certificate of need and site permit applications.

⁴ Scheduling Order, e-Dockets, No. [20205-162925-01](#), May 5, 2020. On July 9, 2020, the ALJ issued an *Order Amending Scheduling Order* that extended the public hearing comment period through August 10, 2020, e-Dockets No. [20208-165642-01](#), July 9, 2020. The Scheduling Order was subsequently amended a second time on August 6, 2020 to change the date of the Applicant's Proposed Findings of Fact to August 20, 2020, and EERA's Comments on the Proposed Findings of Fact and Technical Analysis October 12, 2020. The ALJ also planned to file the ALJ Summary Report on that date, see *Second Order Amending Scheduling Order*, e-Dockets [20208-165642-01](#), August 6, 2020.

On August 10, 2020, the Minnesota Department of Agriculture (MDA) filed comments on the site permit application.

On August 20, 2020, Elk Creek filed its Proposed Findings of Fact, Conclusions of Law and Recommendation.

On September 24, 2020, EERA filed its Comments on Elk Creek's Proposed Findings of Fact, Conclusions of Law and Recommendation.

On October 5, 2020, Elk Creek filed its Responses to Public Comments.

On October 9, 2020, the ALJ filed a Summary of Public Comments.

IV. Statutes and Rules

Certificate of Need. Under Minn. Stat. § 216B.243, subd. 2, no large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the Commission.

Large Energy Facility. The proposed project is defined as a large energy facility under Minn. Stat. § 216B.2421, subd. 2(1), because it is a large electric power generating plant with a capacity of 50 megawatts or more that will connect to the transmission system.

Granting a Certificate of Need. In assessing the need for a proposed large energy facility, the Commission must consider the factors listed under each of the criteria set forth in Minn. Stat. § 216B.243, subd. 3, and Minn. R. 7849.0120.

Procedural Treatment of Certificate of Need Application. The Commission directed use of the informal review process set forth under Minn. R. 7829.1200. The informal review process consists of an initial and reply comment period and a public hearing.

Timing. Under Minn. Stat. § 216B.243, subd. 5, the Commission shall approve or deny a certificate of need for a large energy facility within 12 months of the submission of an application.

Environmental Assessment. Minn. R. 7849.1000 to 7849.2100, establishes the procedural and content requirements for the preparation of an environmental report for a large energy facility certificate of need application. Minn. Stat. 216E.04, subd. 5 and Minn. R. 7850.3700, subp. 1 requires completion of an environmental assessment (EA) under the alternative process. Under Minn. R. 7849.1500, the Department of Commerce may elect to prepare an environmental

assessment in lieu of an environmental report for the certificate of need. The environmental assessment describes the human and environmental impacts of a proposed large energy facility, alternatives to the project, and methods to mitigate anticipated adverse impacts. The Commission must consider whether the environmental assessment and the record in the matter address the issues identified in the environmental report scoping decision before making a final decision on the application.

Site Permit. Large electric power generating plants (LEPGPs) are governed by Minn. Stat. § 216E and Minn. R. part 7850. Minn. Stat. § 216E.01, subd. 5, defines a LEPP as electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more. A solar energy LEPP of under 80 MW is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04. Under the alternative permitting process, EERA prepares an environmental assessment for the Commission containing information on the human and environmental impacts of the proposed project and addresses mitigating measures. The environmental assessment is the only state environmental review document required to be prepared on the project.

Prime Farmland Exclusion. Minn. R. 7850.4400, subp. 4 states:

No large electric power generating plant site may be permitted where the developed portion of the plant site, excluding water storage reservoirs and cooling ponds, includes more than 0.5 acres of prime farmland per megawatt of net generating capacity, or where makeup water storage reservoir or cooling pond facilities include more than 0.5 acres of prime farmland per megawatt of net generating capacity, unless there is no feasible and prudent alternative. Economic considerations alone do not justify the use of more prime farmland. "Prime farmland" means those soils that meet the specifications of Code of Federal Regulations 1980, title 7, section 657.5, paragraph (a). These provisions do not apply to areas located within home rule charter or statutory cities; areas located within two miles of home rule charter or statutory cities of the first, second, and third class; or areas designated for orderly annexation under Minnesota Statutes, section 414.0325.

V. Comments and Analyses Received

Certificate of Need Comments

Department of Commerce Division of Energy Resources

On April 8, 2020, DER filed comments on the merits of the certificate of need application. DER reviewed the CN application with the operative criteria found in Minnesota Statutes Chapter

216B and Minnesota Rules Chapter 7849. In response to the Commission's January 9, 2020 Notice of Comment period, DER stated it had not identified any contested issues of fact with respect to the representations made in the petition and that it had not identified any other issues or concerns.

DER noted that it relies on the project EA for its socioeconomic analysis in a CN proceeding including information related to:

- Minnesota Rules 7849.0120 A (5) – the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;
- Minnesota Rules 7849.0120 C (2) – the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;
- Minnesota Rules 7849.0120 C (3) – the effects of the proposed facility, or a suitable modification thereof, in inducing future development; and
- Minnesota Rules 7849.0120 C (4) – the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality.

DER recommended the Commission consider the EA in the evaluating the socioeconomic analysis criteria identified above. DER recommended the Commission grant the CN if, upon consideration of the EA, the Commission concludes that the proposed facility will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health.

Based upon its analysis, DER recommended that the Commission determine that Elk Creek has shown that:

- the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states;
- a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence in the record; and
- the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

Elk Creek Reply to DER Comments

On April 17, 2020, Elk Creek acknowledged it had reviewed DER's April 8, 2020 comments regarding Elk Creek's CN application for the Elk Creek Solar Project. Elk Creek expressed

appreciation for DER's comprehensive analysis and concurred with its recommendation that the Commission issue a Certificate of Need to Elk Creek for the Project.

Environmental Assessment Scoping Comments

Public Comments

Approximately 20 people attended the Public Information and Environmental Assessment Scoping Meeting on January 13, 2020. Three attendees provided verbal comments during the meeting, and three members of the public provided written comments during the public comment period. The verbal comments and questions included a broad range of topics, such as the output of the Project, solar resource in Minnesota, reduction in carbon via solar, reliability and efficiency, decommissioning, vegetation management, wildlife habitat, loss of farmland, benefits of solar, insurance requirements, potential for contamination from panels, and project financing. The written public comments also included a broad range of topics, including: the benefits of solar, reduction in the consumption of carbon and the displacement of agriculture. No alternative locations to Elk Creek's proposed site were offered at the public meeting or during the comment period.

Rock County Land Management Department (Rock County)

Rock County provided comments during the EA scoping period regarding required local permits and submittals for the project. These include 9-1-1 address registration, driveway permits, conditional use permits for temporary laydown yards, and land use permits for permanent structures such as the operations and maintenance building. Rock County recommended that Elk Creek enter into agreements with Rock County to address road, drainage and development issues.

Minnesota Department of Natural Resources

During the EA scoping period, DNR recommended that Elk Creek establish a cover crop several months ahead of construction to stabilize soils prior to construction and minimize erosion. DNR recommended that construction be planned for drier, late summer conditions in order to reduce the potential for construction challenges associated with low-lying or wet soil areas. DNR noted that two state-listed fish species are found in Elk Creek and recommended that impacts to Elk Creek be avoided.

DNR requested that the environmental assessment consider whether fencing for the project be designed to exclude wildlife, particularly deer. DNR recommended that the environmental assessment consider the importance of establishing pollinator habitat at the project site.

Environmental Assessment

On June 17, 2020, EERA issued the Environmental Assessment for the proposed project. The EA provided descriptions of the potential human and environmental impacts of the project. The EA is intended to facilitate informed decision-making by the Commission and assist citizens in providing input on the proposed project.

EERA emphasized that no specific system alternatives in terms of size, type and timing, or specific alternative sites were proposed for the project during the scoping period. EERA noted that concerns were raised as to the solar capacity factor and the amount of productive farmland displaced by the proposed solar facility relative to that of a large wind energy conversion system.

Elk Creek Testimony

On July 17, 2020, Elk Creek filed testimony in both the CN and site permit dockets. The testimony of Jordan Burmeister provided updates on Elk Creek's coordination with local governments and landowners surrounding the proposed project. The testimony of Michael Morris responded to public comments about the electrical output of the project, and the durability and recyclability of photovoltaic panels that would be used for the project. The testimony of Melissa Schmit addressed the project's design components and power purchase agreement; and provided comments on the EA and the Sample Site Permit.

Public Hearing Comments

Public Comments

At the public hearing, two commenters expressed support for the Project because it would result in construction jobs in the region. Two commenters expressed concern for the Project because of the loss of agricultural land for food production. Some members of the public had questions and comments regarding the recycling of facility components, tax incentives for the project, facility decommissioning, and vegetation management.

Two landowners submitted written comments expressing support for the project. One written comment expressed concern about the project's potential impact on prime farmland.

Elk Creek

In its July 17, 2020 comments, Elk Creek requested revisions to Section 4.3.8 of the Sample Site Permit to allow it to plant perennial native vegetation in the Preliminary Development Area which could be harvested as a hay crop for locational agricultural needs.

DNR

On July 21, 2020, DNR requested revisions to the Draft Site Permit Section 4.3.8 (Beneficial Habitat) and the addition of Section 4.3.8.1 (Site Planning and Management – Vegetation Management Plan). DNR noted that it developed the following requested red-lined modifications upon consultation with EERA and the Board of Water and Soil Resources (BWSR):

4.3.8 Beneficial Habitat

The Permittee shall implement site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators; ~~and that enhances~~ improving soil water retention and reducing storm water runoff and erosion. The Permittee shall develop a vegetation management plan ~~that incorporates, to the extent applicable and appropriate, the technical guidance and best management practices outlined in the DNR's Prairie Establishment and Maintenance Technical Guidance for Solar Projects¹. The vegetation management plan shall be filed at least 30 days prior to the preconstruction meeting.~~ using best management practices established by the Minnesota DNR and the Minnesota Board of Soil and Water Resources. The vegetation management plan shall be prepared in coordination with EERA, DNR, MDA, and BWSR.

The vegetation management plan and documentation of the coordination efforts between the permittee and the coordinating agencies shall be filed at least 14 days prior to the preconstruction meeting. To ensure continued management and recognition of beneficial habitat, the Permittee is encouraged ~~to⁵ seek certification of the project by following guidance set forth by the Pollinator Plan provided by the Board of Water and Soil Resources.~~ meet the standards for Minnesota's Habitat Friendly Solar Program by submitting project plans, **identify** seed mixes, a completed project planning assessment form, and any other applicable documentation used to meet the standard to the Minnesota Board of Water and Soil Resources. All documents required by BWSR for meeting ~~the~~ standards of the Minnesota's Habitat Friendly Solar Program should also be filed with the Commission.

4.3.8.1 Site Planning and Management

⁵ Ed. Note - Text highlighted in yellow was added by Commission staff to clarify the edit.

The Vegetation Management Plan must include the following:

- Management objectives addressing short term (year 0-3, seeding and establishment) and long term (year 4 through the life of the permit) objectives.
- A description of planned restoration and vegetation activities, including how the site will be prepared, timing of activities, and how seeding will occur (broadcast, drilling, etc.), and the types of seed mixes to be used.
- A description of how the site will be monitored and evaluated to meet management objectives.
- A description of management tools used to maintain vegetation (e.g. mowing, spot spraying, hand removal, fire, grazing, etc.), including timing/frequency of maintenance activity.
- Identify responsible party for site restoration, monitoring, and long-term vegetation management of the site (e.g. consultant, contractor, site manager, etc.).
- Identification, monitoring and management of noxious weeds and invasive species (native and non-native) on site.
- Site plan showing how the site will be revegetated and corresponding seed mixes. Seed mixes, seeding rates, and cover crops should follow best management practices.

LIUNA

The Laborers' International Union North America - Minnesota and North Dakota expressed support for the project and noted the benefits to the local economy, including construction jobs and local spending.

Minnesota Department of Agriculture

In its August 10, 2020 comments, MDA noted that its role in reviewing energy projects under the Commission's authority is confined to those aspects of a project that affect agricultural practice and, principally, the soil resource that supports agriculture.

MDA acknowledged the inherent environmental value that renewable energy development brings to the State of Minnesota, however, MDA also realizes that most of this development will occur in agricultural portions of the state. MDA noted that solar development can have a significant impact on agriculture due to the amount of land utility-scale solar development requires as well as the potential to impact the soil resource. MDA noted that Agricultural Impact Mitigation Plans (AIMP) and Vegetation Management Plans (VMP) have been required as part of the site permitting process to address protection of the soil resource. The diversion of significant portions of agricultural land to alternative uses generally has not been addressed except in case of certain soil types covered under the Prime Farmland Exclusion (Minn. Rule 7850.4400).

Elk Creek requested that they be allowed to explore an alternative Vegetation Management Plan, at the request of area farmers. The alternative plan incorporates perennial agricultural crops that can be harvested and/or grazed by regional farmers. MDA stated it is excited by this opportunity because they, along with staff at the Board of Water and Soil Resources (BWSR), have been actively working on bringing perennial crops back into Minnesota in order to diversify agricultural production and gain the environmental benefits of perennial vegetation in the agricultural landscape.

However, as with any approach to successfully manage re-vegetation of a disturbed site, MDA recognizes that success will depend on an effective Vegetation Management Plan that specifically addresses the crop vegetation types that might be grown; the management practices to establish and maintain that vegetation; and relationships, including general contractual arrangements, with area farmers to harvest and utilize the crop; along with any other relevant issues associated with perennial agricultural crops. MDA is willing to assist Geronimo Energy in developing an appropriate Vegetation Management Plan for perennial agricultural crops through consultation and review.

MDA encouraged the Commission to allow the option for an alternative approach to vegetation management that includes perennial agricultural crops provided Elk Creek provides a sound Vegetation Management Plan appropriate for perennial agricultural crops.

Post-Hearing Filings

Elk Creek Proposed Findings of Fact, Conclusions of Law and Recommendation

On August 20, 2020, Elk Creek filed its Proposed Findings of Fact, Conclusions of Law and Recommendation. The Document included one-hundred and sixty-five proposed Findings of Fact, eleven Conclusions of Law and a Recommendation that the Commission issue a site permit for the project including the draft site permits conditions amended to include changes to Sections 4.3.8 and 4.3.8.1 as recommended by the DNR in its July 21, 2020 comments.

EERA

On September 24, 2020, EERA filed its Comments on Elk Creek's Proposed Findings of Fact, Conclusions of Law and Recommendation which included the following recommended modifications.

Site Permit Application and Related Procedural Background (II)

EERA added a new FOF at 4 to the Applicant's proposed Findings of Fact (FOF) in recognition of the Commission's authority granted in the Power Plant Siting Act.⁶

4. If the commission determines the project is needed, it must determine where it will be located. Minnesota Statutes 216E.03 lists considerations that guide the study, evaluation, and designation of LEPGP site permits. Minnesota Rule 7850.4100 lists the factors the commission must consider when making a site permit decision.

Certificate of Need Application and Related Procedural Background (III)

EERA added a new FOF at 23 to the Applicant's proposed findings in recognition of the Commission's obligation under Certificate of Need provisions to consider alternatives to the proposed facility.

23. The Commission must determine whether the proposed project is needed or if another project would be more appropriate for the state of Minnesota. Minnesota Rules, part 7849.0120 provides the criteria that the Commission must use in determining whether to grant a CN.

EERA recommended typographic corrections to Findings 67, 98 and 102.

Prime Farmland (X.C.3)

EERA edited the Applicant's proposed FOF 114 to more accurately reflect the footnoted passage from the Environmental Assessment and to remove the reference to the term "near". For the purposes of determining if a selected site is allowable under the "no feasible and prudent alternative" exemption in Minnesota Rule 7850.4400, the Solar Siting and Prime Farmland Guidance document requests that developers compare various compliant sites. The alternative site(s) are not required to be "near" the Applicant's preferred site.

114. After Elk Creek submitted the SP Application, EERA and the Department of Agriculture developed a guidance document to assist developers when evaluating potential solar sites relative to the feasible and prudent language in the rule. The guidance document is meant to assist developers in defining feasible and prudent in relation to siting alternatives considering the dual mandates in Minnesota to advance solar energy production and protect prime farmland and due to the inherent difficulties in avoiding prime farmland. The guidance is meant to assist developers in defining

⁶ Ed. note - Because EERA inserted its new findings numbers as integers, the findings in its document do not correspond to those in Elk Creek's findings document.

feasible and prudent in relation to siting alternatives and encourage them to build a record early in the site selection process showing whether or not an exception to the prime farmland exclusion is warranted. ~~advises applicants to explain how they chose the region in which their site is located, how they selected their specific site and whether any alternatives exist near the chosen site that avoid prime farmland.~~

EERA edited the Applicant's proposed FOF 120 because it is more appropriately a conclusion. EERA also indicated its intent to seek conformity with the rule (Minnesota Rule 7850.4400, Subpart 4) and guidance.

120. ~~Therefore,~~ There is no feasible and prudent alternative available to Elk Creek, including near the Magnolia substation or otherwise in Rock or Nobles County to construct the Project and not impact prime farmland. ~~A finding that there is no feasible and prudent alternative to avoidance of prime farmland for the Project is consistent with past Commission decisions for large solar generating systems sited in prime farmland due to the fact that areas surrounding the Project substation also contain similar amounts of prime farmland as the proposed site.~~

EERA added new FOF 123 to the Applicant's proposed findings to illustrate the difficulty of siting utility scale solar, relative to the prime farmland rule, in the high solar resource area of the southwest portions of Minnesota.

123. A generic 80 MW solar farm sited elsewhere in Minnesota, if sited in the highly solar productive southwestern portion of the state, would be expected to have similar agricultural/prime farmland impacts.

EERA added new FOF 124 to the Applicant's proposed findings to reflect the fact that other renewable options (project alternatives) are available and have less potential to disrupt prime farmland, even when sited in the southwest portions of Minnesota.

124. While LWECs (wind farm) sites tend to be larger (on a wind rights basis or what is referred to as the "box") than solar farm sites, the direct on the ground impact (footprint) is much less with a wind farm. As such, generically, a solar farm will have relatively greater impacts on land use and agriculture than a wind farm. Solar farms require 7 to 10 acres of land per MW, while wind farms require about 0.75 acres per turbine or approximately 0.3 acres of land per MW. Accordingly, from a land use perspective wind farm projects are relatively more compatible with agricultural production.

EERA edited Elk Creek's proposed FOF 164 to add the Minnesota Department of Agriculture (MDA) to the list of the coordinating agencies for the Vegetation Management Plan requirement (Site Permit Section 4.3.8).

EERA edited the Applicant's **CONCLUSION OF LAW** #8 to place the conclusion in the proper geographic context.

8. There is no potential site in either Rock or Nobles County, within an area of five miles of the Magnolia substation, that is conducive to solar development of approximately 700 acres that is not defined as prime farmland. Within this geographical limitation, there is no feasible and prudent alternative to the Elk Creek Solar Project site. ~~There is no feasible or prudent alternative to the Project under Minn. R. part 7850.4400, subpart 4.~~

Regarding **RECOMMENDATIONS**, EERA noted Elk Creek's statement that its site selection process included the following factors: solar irradiance; electrical infrastructure; transportation infrastructure; willing landowners; and environmental and regulatory constraints, but the key consideration in the selection process was the Project's proximity to existing electrical and transportation infrastructure.

EERA also noted that the Applicant acknowledged it did not consider alternative sites other than the Project site because Elk Creek is not required to analyze alternative sites pursuant to 7850.3100 and due to the proximity of the site to electrical transmission infrastructure, a willing Project participant, optimal solar resource, and the minimal environmental impacts expected from the construction of the Elk Creek Solar Project at the Project site.

EERA questioned whether a limited geographical search is adequate to meet the "no feasible and prudent alternative" exemption of Minnesota Rule 7850.4400, Subpart 4 (Prime Farmland Exclusion). EERA concluded: "To date, EERA staff does not believe the record supports a finding that this threshold has been met, and therefore makes no recommendation on the granting of a Certificate of Need or Site Permit."

Elk Creek Response to Comments

On October 5, 2020, Elk Creek filed its Response to Public Comments in both the CN and Siting dockets. Elk Creek expressed general appreciation for comments received from the state agencies and the public.

Elk Creek's noted that its wage commitments in the power purchase agreement will ensure that all construction personnel will receive Minnesota prevailing wage rates, which are the highest wage paid to employees in the same position in Minnesota.

Elk Creek agreed to continue revising its VMP in consultation with MDA, and to include mowing, grazing and haying as possible solutions to the requirements of Section 4.3.8 of the draft site permit. Elk Creek expressed appreciation that MDA did not oppose the project or its siting on prime agricultural land. Elk Creek appreciates the comments of MDA and its support of Elk Creek's efforts to explore an alternative VMP that would incorporate perennial agricultural crops that can be harvested and/or used for grazing by local farmers.

Elk Creek also expressed its appreciation that MDA did not oppose the Project or its siting on prime agricultural land. Elk Creek disagreed with a public comment that stated allowing the proposed project to continue to be constructed on prime farmland would be an unwise use of Minnesota resources and a violation of Minnesota Law. Elk Creek agreed that the prime farmland rule (Minn. R. 7850.4400, Subp. 4) must be considered by the Commission in this situation because the project is sited on prime farmland. However, the record clearly demonstrates that no feasible and prudent alternative to the proposed project location had been offered or demonstrated to exist, and therefore the prime farmland rule does not prohibit the siting of the project in its proposed location.

Elk Creek reiterated that its decision to locate the project in southwestern Minnesota was largely because the southwestern portion of the state also has the best solar resource in Minnesota. Elk Creek also chose to focus on Rock County because of the positive experience its owner, Geronimo, had with landowners and Rock County when developing the Prairie Rose Wind Farm. According to Elk Creek, locating the project in the portion of the state with the highest solar irradiance, close to available transmission capacity and on land owned by willing landowners are technical factors that are germane to every project proposer when it chooses a project location and are not, per se, economic considerations alone.

Elk Creek reiterated that it was unsuccessful in its search for any 700-acre parcel within Rock or Nobles County, that was not an otherwise prohibited site, that could support the Project and was not prime farmland. Elk Creek cited its analysis of Nobles and Rock Counties that demonstrated that a lack of any feasible and prudent alternative existed within either county. This coupled with the fact that no alternative sites were raised during the Commission's permitting process demonstrates that there is no feasible and prudent alternative to the Project.

Office of Administrative Hearings

In its October 9, 2020 Summary Report of Public Comments, the ALJ provided a description of the project, a procedural history, and a complete summary of all written and oral comments provided during the scoping and public hearing comment periods.

VI. Staff Analysis

Based on information in Elk Creek's CN and Site Permit applications, the analysis provided in the Environmental Assessment, the public comments received, comments provided by the DER,

and the EERA, the summary set out in the ALJ Report, and other evidence in the record; staff provides the following discussion and Recommendation.

In reaching its decision, the Commission is required to grant a certificate of need for the project before issuing a site permit. Before considering either application, the Commission must determine that the Environmental Assessment is adequate. Staff has sequenced the Commission's decision alternative in the following order: 1) EA Adequacy, 2) Findings of Fact, Conclusions of Law, and Recommendation, 3) Certificate of Need and 4) Site Permit. Each of these is considered in turn below.

A. Environmental Assessment

Staff has reviewed the scoping decision and environmental assessment and determined that the DOC EERA conducted an appropriate environmental analysis of the project, and that the environmental report satisfies the requirements in Minn. R. 7849.1200. In addition, no comments were received, or information submitted into the record that contest the information and analysis contained in the EA. Therefore, staff recommends that the Commission find the Environmental Assessment and the record created at the public hearing does address the issues identified February 6, 2020 Environmental Assessment Scoping Decision.

B. Findings of Fact, Conclusions of Law, and Recommendation

Staff notes that the EERA's Proposed Findings of Fact, Conclusions of Law, and Recommendation is largely identical to that proposed by Elk Creek, with the exception of the prime farmland exclusion and the consideration of feasible and prudent alternatives. The EERA version corrected some typographic errors, provided clarification (including adding findings), incorporated DNR's changes to Draft Permit Section 4.8.3 (including the addition of Section 4.8.3.1), and removed Elk's Creeks proposed Recommendation that the Commission issue a site permit to construct the project. EERA's removal of the Recommendation was based on its interpretation of the prime farmland rule.

Staff supports EERA's version of the Findings of Fact, Conclusions of Law and Recommendation with one exception. Staff does not support the removal of the applicant's proposed conclusion because it is well-supported in the record. As noted by Elk Creek, no feasible and prudent alternatives were offered by any party in the record. The MDA did not object to Elk Creek's requested 'prime farmland exclusion' request. Finally, the applicant provided an analysis demonstrating that it was unable to identify a feasible and prudent alternative in the area of its proposed project.

C. Certificate of Need

Staff notes the substantial support for this project and lack of opposition to approval of the CN. Staff agrees with the recommendation of the DER that Elk Creek has demonstrated the project meets the criteria set forth under Minn. Stat. § 216B.243 and Minn. R. 7849.0120 (A, B, and D). Staff recommends the Commission find that, upon consideration of the factors set forth in Minn. R. 7849.0120(C), the environmental assessment and evidence in the record demonstrates the project will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health. Staff agrees with the DER that the Commission should grant a CN to Elk Creek for the up to 80 MW Elk Creek Wind Project in Rock County with the appropriate site permit conditions.

D. Site Permit

Staff believes Elk Creek has demonstrated the project meets the criteria set forth under Minn. Stat § 216E.04, Subd, 8 and Minn. R. 7850.4100 and that the record supports issuance of a site permit for the project with the appropriate conditions. The attached Proposed Site Permit is intended to be consistent with the record and recommendations below.

VII. Decision Options

A. Environmental Assessment Adequacy

1. Determine that the Environmental Report and the record created in this matter address the issues identified in the February 6, 2020 Environmental Assessment Scoping Decision.
2. Take some other action deemed more appropriate.

B. Findings of Fact, Conclusions of Law and Recommendation

1. Approve the Findings of Fact, Conclusions of Law and Recommendation proposed by Elk Creek.
2. Approve the Findings of Fact, Conclusions of Law and Recommendation proposed by EERA.

3. Adopt the attached Findings of Fact, Conclusions of Law and Recommendation proposed by EERA with the addition of the Recommendation from Elk Creek's proposed Findings of Fact, Conclusions of Law and Recommendation (Staff Recommendation)

4. Take some other action deemed more appropriate.

C. Certificate of Need

1. Grant a certificate of need for the proposed up to 80-megawatt Elk Creek Solar project in Rock County, Minnesota, finding that:
2. Take some other action deemed more appropriate

D. Site Permit

1. Issue the attached proposed Site Permit the up 80-megawatt Elk Creek Solar Project in Rock County, Minnesota.
2. Take some other action deemed appropriate.

E. Administrative

1. Authorize Commission staff to make further refinements to the Findings of Fact and the site permit as necessary to correct typographic and formatting errors, and to improve consistency with the record, the language of recently issued permits and the Commission's decision on this matter.

Staff Recommendation: Options A.1, B.3, C.1, D.1, and E.1.

ATTACHMENT A -
PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDATION

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

**In the Matter of the Application of Elk
Creek Solar, LLC for a Certificate of Need
for the up to 80 Megawatt Elk Creek Solar
Project in Rock County, Minnesota**

MPUC Docket No. IP-7009/CN-19-351;
OAH Docket No. 71-2500-36619 and
MPUC Docket No. IP-7009/GS-19-495

**In the Matter of the Application of Elk
Creek Solar, LLC for a Site Permit for the
up to 80 Megawatt Elk Creek Solar Project
in Rock County, Minnesota**

**ELK CREEK SOLAR, LLC'S
PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND
RECOMMENDATIONS**

This matter was assigned to Administrative Law Judge Jessica Palmer-Denig (“ALJ”) to conduct a public hearing on the Certificate of Need (MPUC Docket No. 19-351) and Site Permit (MPUC Docket No. 19-495) Applications of Elk Creek Solar, LLC (“Elk Creek” or “Applicant”) for a 80 MW solar energy generating system in Rock County (the “Project”). The Public Utilities Commission also requested that the ALJ prepare a summary report.

A public hearing on the Site Permit and Certificate of Need Applications for the Project was held on July 23, 2020 by remote means. The factual record remained open until August 10, 2020, for the receipt of written public comments.

Jeremy P. Duehr, Fredrikson & Byron, P.A., 200 South Sixth Street, Suite 4000, Minneapolis, Minnesota 55402, and Melissa Schmit, Director of Permitting, Jordan Burmeister, Senior Project Manager, Michael Morris, Senior Director, Energy Assessment and Project Planning, and Chip LaCasse, Construction Manager, Geronimo Energy, LLC, a National Grid Company (“Geronimo”), 8400 Normandale Lake Blvd. Suite 1200, Bloomington, Minnesota 55347 appeared on behalf of Elk Creek.

Bill Storm, Environmental Review Manager, 445 Minnesota Street, Suite 1500, St. Paul, MN 55101 appeared on behalf of the Department of Commerce, Energy Environmental Review and Analysis (“EERA”).

Michael Kaluzniak, Minnesota Public Utilities Commission (the “Commission” or “MPUC”) Staff, 121 Seventh Place East, Suite 350, St. Paul, MN 55101 appeared on behalf of the Commission.

STATEMENT OF ISSUE

Has Elk Creek satisfied the criteria set forth in Chapter 216E of the Minnesota Statutes and Chapter 7850 of the Minnesota Rules for a Site Permit for the proposed Project?

SUMMARY OF RECOMMENDATION

Elk Creek has satisfied the applicable legal requirements and, accordingly, the Commission should grant a Site Permit for the Project, subject to the conditions discussed below.

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

FINDINGS OF FACT

I. APPLICANT

1. Elk Creek Solar, LLC, is a wholly owned subsidiary of Geronimo. Geronimo is a utility-scale renewable energy developer headquartered in Bloomington, Minnesota.¹
2. Geronimo has developed several operating wind farms and solar projects throughout the United States – over 2,400 megawatts (“MW”) of renewable energy projects that are either operational or are currently under construction, including approximately 100 utility-scale and community solar projects completed.²
3. Geronimo also developed the Prairie Rose Wind Farm in Rock County, Minnesota. The Prairie Rose Wind Farm became operational in 2012.³

II. SITE PERMIT APPLICATION AND RELATED PROCEDURAL BACKGROUND

4. If the commission determines the project is needed, it must determine where it will be located. Minnesota Statutes 216E.03 lists considerations that guide the study, evaluation, and designation of LEPGP site permits. Minnesota Rule 7850.4100 lists the factors the commission must consider when making a site permit decision.⁴
5. On September 13 and 16, 2019, Elk Creek filed a Site Permit Application (“SP Application”) with the Commission for the Project.⁵
6. On September 20, 2019, the Commission issued a Notice of Comment Period on Site Permit Application Completeness.⁶ The Notice requested comments on whether Elk Creek’s SP Application was complete within the meaning of the Commission’s rules.⁷

¹ Ex. 7 at 1 (SP Application).

² Meeting Presentation (July 28, 2020), GS Docket, eDockets Document No. [20207-165342-02](#).

³ Ex. 7 at 8 (SP Application).

⁴ Ex. 106 at 7 (EA).

⁵ Ex. 7 (SP Application).

⁶ Ex. 9 (Notice of Site Permit).

7. On September 25, 2019, Elk Creek notified those persons on the Commission's general service list, landowners and local government officials that Elk Creek filed the SP Application.⁸
8. On September 26, 2019, the Notice of Elk Creek filing its SP Application was published in the *Star Herald*.⁹
9. On October 4, 2019, the EERA Staff filed comments with the Commission recommending that the Commission accept the SP Application as complete.¹⁰
10. On October 11, 2019, Elk Creek filed Reply Comments in response to public comments raised during the completeness comment period.¹¹
11. On October 25, 2019, the Commission issued a Notice of Commission Meeting scheduling a meeting for November 7, 2019 to address whether to accept the SP Application as substantially complete and to authorize review under the alternative permitting process; whether to process the CN Application and the SP Application jointly; what procedural process to authorize for evaluation of the SP Application; and whether to vary the time limits of Commission rules relating to application completeness.¹²
12. On December 23, 2019, the Commission issued an Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process, which: ordered the combination of the site permit application review process with the certificate of need application review process to the extent practicable; authorized review of the SP Application under the alternative permitting process defined in Minnesota Statute § 216B.04 and Minnesota Rule 7850.2800 to 7850.3900; requested that an ALJ from the Office of Administrative Hearings ("OAH") preside over a hearing and prepare a summary report; approved the sample site permit for public review during the review process ("Sample Site Permit"); and address various other administrative matters.¹³
13. On December 23, 2019, the Commission issued a Notice of Public Information and Environmental Assessment Scoping Meeting scheduling a meeting on January 13, 2020 in Luverne, Minnesota and announcing that written comments would be accepted through January 28, 2020.¹⁴ The Notice of Public Information and Environmental Assessment Scoping Meeting was mailed to landowners and local units of government located within

⁷ Ex. 9 (Notice of Site Permit).

⁸ Affidavits of Mailing (Sept. 25, 2019), GS Docket, eDockets Document No. [20208-166026-01](#).

⁹ Ex. 308 (Public Information and Scoping Meeting Newspaper Notice), GS Docket, eDockets Document No. [20208-166030-01](#).

¹⁰ Ex. 100 (Comments and Recommendations).

¹¹ Ex. 11 (Reply Comments).

¹² Notice of Commission Meeting—Nov. 7, 2019 (Oct. 25, 2019), GS Docket, eDockets Document No. [201910-156898-02](#).

¹³ *Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process* (December 23, 2019), GS Docket, eDockets Document No. [201912-158561-01](#).

¹⁴ Notice of Public Information and EA Scoping Meeting (December 23, 2019), GS Docket, eDockets Document No. [201912-158585-01](#), [03](#).

and adjacent to the Project.¹⁵ The Notice requested comments on issues and facts that should be considered in the development of the environmental assessment.¹⁶ During this comment period, written comments were received from one member of the public, the Minnesota Department of Natural Resources, the Mayor of the City of Luverne and Rock County.¹⁷

14. On January 2, 2020, the Notice of Public Information and Environmental Assessment Scoping Meeting was published in the *Star Herald*.¹⁸
15. On January 13, 2020, the Commission and the EERA Staff held a public meeting in Luverne, Minnesota to provide the public with information about the Project and to solicit comments on the scope of the environmental assessment.¹⁹ At the meeting, three members of the public asked general questions about the Project.²⁰ One member of the public expressed support for the Project.²¹ No alternatives to Elk Creek's proposed site were presented at the public meeting.²²
16. On February 6, 2020, the EERA Staff filed the Environmental Assessment Scoping Decision ("EASD"), which set forth the matters proposed to be addressed in the environmental assessment and identified certain issues outside the scope of the environmental assessment.²³ No site alternatives were recommended for study, accordingly, no site alternative other than the site location proposed by Elk Creek would be considered in the environmental assessment.²⁴
17. On April 15, 2020, the ALJ issued a Notice of Prehearing Conference setting the prehearing conference for May 4, 2020.²⁵
18. On May 5, 2020, the ALJ issued a Scheduling Order setting a joint public hearing on the Certificate of Need Application ("CN Application") and SP Application for July 23, 2020 and setting forth other procedural deadlines in the proceedings.²⁶ The ALJ amended the scheduling order on July 9, 2020 and August 6, 2020.²⁷

¹⁵ Notice of Public Information and EA Scoping Meeting (December 23, 2019), GS Docket, eDockets Document No. [201912-158585-01, 03](#).

¹⁶ Notice of Public Information and EA Scoping Meeting (December 23, 2019), GS Docket, eDockets Document No. [201912-158585-01, 03](#).

¹⁷ Ex. 103 (Written Public Comments--EA Scope).

¹⁸ Ex. 308 (Public Information and Scoping Meeting Newspaper Notice), GS Docket, eDockets Document No. [20208-166030-01](#).

¹⁹ Ex. 102 (Oral Public Comments – EA Scope).

²⁰ Ex. 102 (Oral Public Comments – EA Scope).

²¹ Ex. 102 (Oral Public Comments – EA Scope).

²² Ex. 102 (Oral Public Comments – EA Scope).

²³ Ex. 104 (EA Scoping Decision).

²⁴ Ex. 104 at 6 and 9 (EA Scoping Decision).

²⁵ Notice of Prehearing Conference (April 15, 2020), GS Docket, eDockets Document No. [20204-16128-02](#).

²⁶ Scheduling Order (May 5, 2020), GS Docket, eDockets Document No. [20205-162925-01](#).

²⁷ Amended Scheduling Order (July 9, 2020), GS Docket, eDockets Document No. [20207-164751-01](#), Second Amended Scheduling Order (August 6, 2020), GS Docket, eDockets Document No. [20208-165642-01](#).

19. On June 17, 2020, the EERA Staff issued the environmental assessment for the Project (“Environmental Assessment”).²⁸ Notice of the availability of the Environmental Assessment was also published in the *EQB Monitor*.²⁹
20. On June 29, 2020, the Commission issued Notice of Public Hearing and Comment Period notifying the public of the July 23, 2020 and initiating a public comment period to close on August 10, 2020.³⁰
21. On July 17, 2020, Elk Creek submitted direct testimony from Melissa Schmit, Michael Morris and Jordan Burmeister.³¹
22. On July 23, 2020, the ALJ presided over a joint public hearing on the SP Application and the CN Application for the Project via remote means. Commission Staff, EERA Staff, and representatives from Elk Creek were present. Approximately four members of the public spoke at the hearing.³² In addition, several additional written comments were received on the Project before the close of the comment period on August 10, 2020.³³

III. CERTIFICATE OF NEED APPLICATION AND RELATED PROCEDURAL BACKGROUND

23. The Commission must determine whether the proposed project is needed or if another project would be more appropriate for the state of Minnesota. Minnesota Rules, part 7849.0120 provides the criteria that the Commission must use in determining whether to grant a CN.³⁴
24. On May 28, 2019, Elk Creek filed a Request for Exemption from Certain Certificate of Need Application Content Requirements with the Commission requesting exemptions from certain Certificate of Need data requirements.³⁵
25. On June 7, 2019, the Commission issued a notice of Comment Period on Request for Exemptions from Certain Certificate of Need Filing Requirements, which opened an initial written comment period until June 28, 2019, and a reply comment period until July 8, 2019.³⁶

²⁸ Exs. 106 (EA) and 105 (Notice of EA Availability).

²⁹ Ex. 107 (*EQB Monitor* Notice of EA Availability).

³⁰ Notice of Public Hearing and Comment Period (June 29, 2020), GS Docket, eDockets Document No. [20206-164333-01](#).

³¹ Exs. 15 (Schmit Testimony) 16 (Morris Testimony) and 17 (Burmeister Testimony).

³² See generally, Pub. Hr’g Tr., GS Docket, eDockets Document No. [20208-165804-02](#).

³³ E.g., *Public Comment – Westgor* (August 10, 2020), *Chambers Family Farms* (August 10, 2020), *Schneiderman* (August 10, 2020) GS Docket, eDockets Document No. [20208-165787-01](#).

³⁴ Ex. 106 at 6.

³⁵ Ex. 1 (Request for Exemption).

³⁶ Notice of Comment Period, CN Docket, eDockets Document No. [20196-153416-01](#).

26. On June 27, 2019, the Staff of the Department of Commerce, Division of Energy Resources (“DER”) filed comments recommending that the Commission approve the data exemption requests.³⁷
27. On July 8, 2019, Elk Creek filed reply comments concurring with the DER Staff’s recommendation.³⁸
28. On July 12, 2019, the Commission issued a Notice of Commission Meeting scheduling a meeting for July 26, 2020 to consider whether to grant Elk Creek’s data exemption requests with one modification.³⁹
29. On August 19, 2019, the Commission issued an Order Approving Elk Creek’s Data Exemption Requests.⁴⁰
30. On September 13, 2019, Elk Creek filed its CN Application.⁴¹ Elk Creek is seeking a Certificate of Need under Minn. Stat. § 216B.243.⁴²
31. On September 20, 2019, the Commission issued a Notice of Comment Period on CN Application Completeness announcing it would accept written comments through October 4, 2019 and reply comments through October 11, 2019.⁴³
32. On October 4, 2019, the DER Staff filed written comments recommending “that the Commission find the application to be complete” pending the submission of additional information and “that the Commission evaluate the Petition using the Commission’s informal comment process.”⁴⁴ On October 7, 2019, the DER Staff filed corrected comments removing reference to an applicant other than Elk Creek.⁴⁵
33. On October 11, 2019, Elk Creek filed reply comments providing the additional information requested by DER Staff.⁴⁶
34. On October 25, 2019, the Commission issued a Notice of Commission Meeting scheduling a meeting on November 7, 2019 to consider whether to accept the CN Application as complete; whether to direct that it be evaluated using the informal review process or refer it to OAH for contested case proceedings; whether it should direct that

³⁷ Comments (June 27, 2019), CN Docket, eDockets Document No. [20196-153939-01](#).

³⁸ Ex. 2 (Reply Comments).

³⁹ Notice of Commission Meeting—July 26, 2019 (July 12, 2019), CN Docket, eDockets Document No. [20197-154319-01](#).

⁴⁰ Order Granting Exemptions (August 19, 2019), CN Docket, eDockets Document No. [20198-155289-01](#).

⁴¹ Exs. 4, 5, and 6 (CN Application).

⁴² Exs. 4, 5, and 6 (CN Application).

⁴³ Ex. 302 (Comment Period).

⁴⁴ Comments (Oct. 4, 2019), CN Docket, eDockets Document No. [201910-156336-01](#).

⁴⁵ Corrected Comments (Oct. 7, 2019), CN Docket, eDockets Document No. [201910-156400-01](#).

⁴⁶ Ex. 10 (Reply Comments).

the CN Application and SP Application be processed jointly; and whether it should vary the time limits of its rules that relate to application completeness.⁴⁷

35. On December 23, 2019, the Commission issued an Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process, which: authorized review of the CN Application using the informal review process; ordered the combination of the SP Application review process with the CN Application review process to the extent practicable; requested that an ALJ from the OAH preside over a hearing and prepare a summary report; and address various other administrative matters.⁴⁸
36. On December 23, 2019, the Commission issued a Notice of Public Information and Environmental Assessment Scoping Meeting scheduling a meeting on January 13, 2020 in Luverne, Minnesota and announcing that written comments would be accepted through January 28, 2020.⁴⁹ The Notice of Public Information and Environmental Assessment Scoping Meeting was mailed to landowners and local units of government located within and adjacent to the Project.⁵⁰ The Notice requested comments on issues and facts that should be considered in the development of the Environmental Assessment.⁵¹ During this comment period, written comments were received from one member of the public, the Minnesota Department of Natural Resources, the Mayor of the City of Luverne and Rock County.⁵²
37. On January 2, 2020, the Notice of Public Information and Environmental Assessment Scoping Meeting was published in the *Star Herald*.⁵³
38. On January 9, 2020, the Commission issued a Notice of Comment Period on the Merits of the CN Application.⁵⁴ On January 10, 2020, the Commission issued a Revised Notice of Comment Period on the Merits of the CN Application.⁵⁵ The Revised Notice requested comments as to whether there any contested issues of fact with respect to the representations made in the CN Application, whether the Commission should grant a

⁴⁷ Notice of Commission Meeting (October 25, 2019), CN Docket, eDockets Document No. [201910-156898-01](#).

⁴⁸ *Order Accepting Applications as Substantially Complete and Directing Use of Informal Review Process* (December 23, 2019), CN Docket, eDockets Document No. [201912-158561-02](#).

⁴⁹ Notice of Public Information and EA Scoping Meeting (December 23, 2019), CN Docket, eDockets Document No. [201912-158585-02](#), [04](#).

⁵⁰ Notice of Public Information and EA Scoping Meeting (December 23, 2019), CN Docket, eDockets Document No. [201912-158585-02](#), [04](#).

⁵¹ Notice of Public Information and EA Scoping Meeting (December 23, 2019), CN Docket, eDockets Document No. [201912-158585-02](#), [04](#).

⁵² Ex. 103 (Written Public Comments--EA Scope).

⁵³ Ex. 308 (Public Information and Scoping Meeting Newspaper Notice), GS Docket, eDockets Document No. [20208-166030-01](#).

⁵⁴ Notice of Comment Period on the Merits of the CN Application (January 9, 2020), CN Docket, eDockets Document No. [20201-158954-01](#).

⁵⁵ Revised Notice of Comment Period on the Merits of the CN Application (January 9, 2020), CN Docket, eDockets Document No. [20201-159016-01](#).

certificate of need for the Project and whether there are any other issues or concerns related to this Project.⁵⁶

39. On January 13, 2020, the Commission and the EERA Staff held a public meeting in Luverne, Minnesota to solicit comments on the scope of the Environmental Assessment.⁵⁷ At the meeting, three members of the public asked general questions about the Project.⁵⁸ No alternatives to Elk Creek's proposed site were presented at the public meeting.⁵⁹
40. On February 6, 2020, the EERA Staff filed the EASD, which set forth the matters proposed to be addressed in the Environmental Assessment and identified certain issues outside the scope of the Environmental Assessment.⁶⁰ No site alternatives were recommended for study, accordingly, no site alternative other than the site location proposed by Elk Creek was considered in the Environmental Assessment.⁶¹
41. On April 8, 2020, the DER Staff filed written comments recommending "that the Commission consider the impacts demonstrated by the environmental [assessment] and, if the impacts are acceptable, approve the petition."⁶²
42. On April 15, 2020, the ALJ issued a Notice of Prehearing Conference setting the prehearing conference for May 4, 2020.⁶³
43. April 17, 2020, Elk Creek filed reply comments concurring with the DER Staff's recommendation to approve the certificate of need for the Project.⁶⁴
44. On May 5, 2020, the ALJ issued a Scheduling Order setting a joint public hearing on the Certificate of Need and SP Applications for July 23, 2020 and setting forth other procedural deadlines in the proceedings.⁶⁵ The ALJ amended the scheduling order on July 9, 2020 and August 6, 2020.⁶⁶
45. On June 17, 2020, the EERA Staff issued the Environmental Assessment for the Project.⁶⁷ Notice of the availability of the Environmental Assessment was also published in the *EQB Monitor*.⁶⁸

⁵⁶ Revised Notice of Comment Period on the Merits of the CN Application (January 9, 2020), CN Docket, eDockets Document No. [20201-159016-01](#).

⁵⁷ Ex. 102 (Oral Public Comments – EA Scope).

⁵⁸ Ex. 102 (Oral Public Comments – EA Scope).

⁵⁹ Ex. 102 (Oral Public Comments – EA Scope).

⁶⁰ Ex. 104 (EA Scoping Decision).

⁶¹ Ex. 104 at 6 and 9 (EA Scoping Decision).

⁶² Comments (Apr. 8, 2020), CN Docket, eDockets Document No. [20204-161900-01](#).

⁶³ Notice of Prehearing Conference (April 15, 2020), CN Docket, eDockets Document No. [20204-16128-01](#).

⁶⁴ Ex. 13 (Reply Comments).

⁶⁵ Scheduling Order (May 5, 2020), CN Docket, eDockets Document No. [20205-162925-02](#).

⁶⁶ Amended Scheduling Order (July 9, 2020), CN Docket, eDockets Document No. [20207-164751-02](#), Second Amended Scheduling Order (August 6, 2020), CN Docket, eDockets Document No. [20208-165640-01](#).

⁶⁷ Exs. 106 (EA) and 105 (Notice of EA Availability).

46. On June 29, 2020, the Commission issued Notice of Public Hearing and Comment Period notifying the public of the July 23, 2020 and initiating a public comment period to close on August 10, 2020.⁶⁹
47. On July 17, 2020, Elk Creek submitted direct testimony from Melissa Schmit, Michael Morris and Jordan Burmeister.⁷⁰
48. On July 23, 2020, the ALJ presided over a joint public hearing on the SP Application and the CN Application for the Project via remote means. Commission Staff, EERA Staff, and representatives from Elk Creek were present. Approximately four members of the public spoke at the hearing.⁷¹ In addition, several additional written comments were received on the Project before the close of the comment period on August 10, 2020.⁷²

IV. DESCRIPTION OF THE PROJECT

49. The proposed Project is an up to 80 MW alternating current (“AC”) nameplate capacity solar energy conversion facility in Vienna Township, Rock County, Minnesota. The Project would also include associated facilities.⁷³
50. The components of the Project include solar panels and racking; inverters, security fencing, a Project substation, gravel access roads, an operations and maintenance building, on-site below-ground, above-ground or a hybrid combination of above-ground and below-ground electrical collection and communication lines, and up to two weather stations (up to 20 feet tall).⁷⁴ There are five laydown areas proposed for the below-ground, hybrid and above-ground configurations with slight variations based on the configuration.⁷⁵
51. The Project will utilize photovoltaic (“PV”) solar panels with tempered glass varying in size approximately 4 to 6.5 feet long by 2 to 3.5 feet wide, and 1 to 2 inches thick. Depending on the technology selected, the PV panels may have an aluminum frame, silicon, and weatherized plastic backing or a side-mount or under-mount aluminum frame, heat strengthened front glass, and laminate material encapsulation for weather protection.⁷⁶
52. The panels will be installed on a tracking rack system, generally aligned in north-south rows, that utilizes galvanized steel and aluminum for the foundations and frame with a motor that allows the racking to rotate from east to west throughout the day. Each

⁶⁸ Ex. 107 (*EQB Monitor* Notice of EA Availability).

⁶⁹ Notice of Public Hearing and Comment Period (June 29, 2020), CN Docket, eDockets Document No. [20206-164333-02](#).

⁷⁰ Exs. 15 (Schmit Testimony); 16 (Morris Testimony) and 17 (Burmeister Testimony).

⁷¹ See generally, Pub. Hr’g Tr., CN Docket, eDockets Document No. [20208-165804-01](#).

⁷² E.g., *Public Comment – Westgor* (August 10, 2020), *Chambers Family Farms* (August 10, 2020), *Schneiderman* (August 10, 2020) GS Docket, eDockets Document No. [20208-165787-01](#).

⁷³ Ex. 7 at 1 (SP Application).

⁷⁴ Ex. 7 at 6 (SP Application).

⁷⁵ Ex. 7 at 6 (SP Application).

⁷⁶ Ex. 7 at 6 (SP Application).

tracking rack will contain multiple panels. On the tracking rack system, panels will be approximately 15 feet in height from the ground to the top of the panels when at a 45-degree angle. Height may vary due to manufacturer, topography and vegetation constraints and could reach a height of approximately 20 feet from the ground. The tracking rack system will be mount on top of steel piers that are typically driven into the ground.⁷⁷

53. Electrical wiring will connect the panels to inverters, which will convert the power from direct current (“DC”) to AC. Inverters convert approximately 1,500 volts of DC output of the PV panels to between 650-950 volts of AC. The AC will be stepped up through a transformer from the inverter output voltage to 34.5 kilovolt (“kV”) and brought via the collection cables to the Project substation. The electrical collection system will be installed below-ground, above-ground, or a combination of both.⁷⁸
54. If electrical cables are installed below-ground, the DC and AC electrical cables that will be located in a below-ground trench (approximately four feet deep). Cables connecting each unit of solar arrays will be directionally bored under county roads.
55. If electrical cables are installed above-ground, the DC collection cables will be strung under each row of panels on steel arms and a steel cable attached to the steel piers. At the end of each row, hanging brackets would connect several racks/rows of cables to a common collection point near their assigned inverter/transformer skid where the cables will be routed below-ground at the minimum depth of at least four feet below grade to the inverter/transformer skid.⁷⁹ The electrical cables will then be routed below-ground at a minimum depth of at least four feet below grade to a distribution-type pole. These poles would be made of wood, approximately 18” in diameter, up to 30 feet in height, and spaced approximately 200 feet apart. The electrical cables will then be strung on poles to the Project substation.⁸⁰
56. Electrical cables may also be installed in a hybrid, above-ground and below-ground configuration. In a hybrid configuration, the DC collection cables would be strung under rows of panels on steel arms and a steel cable attached to the steel piers. At the end of each row, hanging routed brackets would connect several racks/rows of cables to a common collection point near their assigned inverter/transformer skid where the cables will be routed below-ground at a minimum depth of at least four feet below grade to the inverter/transformer skid. The electrical cables will then be routed below-ground at a minimum depth of at least four feet below grade to the Project substation. Cables connecting each unit of solar arrays will be directionally bored under county roads.⁸¹
57. The Project will use a Supervisory Control and Data Acquisition (“SCADA”) system to control and monitor the Project. The SCADA communications systems provides status

⁷⁷ Ex. 7 at 16 (SP Application).

⁷⁸ Ex. 7 at 18 (SP Application).

⁷⁹ Ex. 7 at 19 (SP Application).

⁸⁰ Ex. 7 at 20 (SP Application).

⁸¹ Ex. 7 at 20 (SP Application).

views of electrical and mechanical data, operation and fault status, meteorological data, and grid station data.⁸²

- 58. The Project will meet all Rock County setbacks for large solar energy systems.⁸³
- 59. Xcel Energy has entered into a power purchase agreement with Elk Creek for the power generated by the Project and intends to use the power generated by the Project to satisfy the growing demand for Xcel Energy's customers under its Renewable*Connect Program.⁸⁴
- 60. The total Project-installed capital costs are estimated to be approximately \$118 million.⁸⁵

V. SITE LOCATION AND CHARACTERISTICS

- 61. The Project is located in Vienna Township, in Rock County in southwest Minnesota.⁸⁶
- 62. Elk Creek has obtained leases and purchase options for 976 acres of privately-owned land, which is defined in the SP Application as the "Land Control Area".⁸⁷ Based on preliminary design, the Project facilities will cover approximately 681 acres, which is defined in the SP Application as the "Preliminary Development Area".⁸⁸ A 295-acre portion of the land currently under lease that will not be utilized by the Project will be excluded from the area leased by Elk Creek during the operation of the Project. The underlying landowner can then continue to farm the area released from the lease for the life of the Project.⁸⁹
- 63. The Project is located in a rural, agricultural area. The population density in Vienna Township is 4.3 people per square mile.⁹⁰

VI. SOLAR RESOURCE CONSIDERATIONS

- 64. Based on the National Renewable Energy Laboratory's Direct Normal Solar Resource of Minnesota, predicted annual average daily total solar resource near the Project are between 4.5 and 4.7 kilowatt hours per square meter per day.⁹¹
- 65. Elk Creek estimates the Project will have a net capacity factor of between 22.2 to 24 percent and an average annual output of between approximately 156,000 and 168,000 MW hours.⁹²

⁸² Ex. 7 at 26 (SP Application).

⁸³ Ex. 7 at 25 (SP Application).

⁸⁴ Ex. 7 at 1 (SP Application).

⁸⁵ Ex. 7 at 13 (SP Application).

⁸⁶ Ex. 7 at 1 (SP Application).

⁸⁷ Ex. 7 at 40 (SP Application).

⁸⁸ Ex. 7 at 40 (SP Application).

⁸⁹ Ex. 7 at 6 (SP Application).

⁹⁰ Ex. 7 at 38 (SP Application).

⁹¹ Ex. 7 at 9 (SP Application).

⁹² Ex. 16 (Morris Testimony).

VII. PROJECT SCHEDULE

66. Commercial operation of the Project is anticipated by fourth quarter 2021. The commercial operation date is dependent on the completion of the interconnection process, permitting, and other development activities.⁹³

VIII. SUMMARY OF PUBLIC COMMENTS

67. Approximately 20 people attended the Public Information and Environmental Scoping Meeting held on January 13, 2020. Three attendees provided verbal comments/questions during the meeting, and three members of the public provided written comments during the public comment period. The verbal comments and questions included a broad range of topics, including: the output of the Project, solar resource in Minnesota, reduction in carbon via solar, reliability and efficiency, decommissioning, vegetation management, wildlife habitat, loss of farmland, benefits of solar, insurance requirements, potential for contamination from panels, and Project financing. The written public comments also included a broad range of topics, including: the benefits of solar, reduction in the consumption of carbon and the displacement of agriculture. No alternatives to Elk Creek's proposed site were presented at the public meeting or during the comment period.⁹⁴
68. In addition, comment letters were received from the Rock County Land Management Department and Minnesota Department of Natural Resources ("MDNR"). Rock County Land Management Department provided comments regarding local permits and submittals it believes should be secured for the Project, including: 911 address registrations; driveway permits; conditional use permits for the temporary laydown yards; and land use permits for permanent structures such as the operations and maintenance building; it also requested that the County and Elk Creek enter into one or more agreements to address road, drainage and development issues.⁹⁵
69. MDNR recommended establishing a cover crop several months ahead of construction to stabilize soils prior to construction, thereby minimizing erosion issues. It also recommended that construction be planned for drier, late summer conditions to reduce the likelihood of construction-related challenges in low-lying or wet soil areas. The MDNR noted that two state-listed fish species are found in Elk Creek and therefore recommended that impacts to Elk Creek, which is outside of the Project area, be avoided. The MDNR requested that the environmental assessment clarify whether the Project fence is intended to exclude wildlife, particularly deer. Finally, the MDNR recommends the environmental assessment consider the importance of establishing pollinator habitat and the Project's plans for successfully incorporating pollinator habitat into Project design.⁹⁶

⁹³ Ex. 7 at 4 (SP Application).

⁹⁴ Exs. 102 and 103 (Written and Oral Comments on Env. Scope).

⁹⁵ Ex. 103 (Written Public Comments--EA Scope).

⁹⁶ Ex. 103 (Written Public Comments--EA Scope).

70. Approximately four members of the public spoke at the public hearing.⁹⁷ Two commenters expressed support for the Project because it would result in construction jobs in the region. Two commenters expressed concern for the Project because of the loss of agricultural land for food production. Further, commenters also had questions and comments regarding recycling of facility components, tax incentives for the Project, facility decommissioning, and vegetation management.⁹⁸
71. In addition, several additional written comments were received on the Project before the close of the comment period on August 10, 2020.⁹⁹ Two commenters expressed support for the Project as the current owners of land on which the Project will be constructed. One commenter expressed concern about the Project's impact on prime farmland. Laborers' International Union North America, Minnesota and North Dakota expressed support for the Project and the benefits to the local economy, including construction jobs and local spending.¹⁰⁰ The MDNR suggested revised site permit language for sample site permit condition 4.3.8 related to beneficial habitat.¹⁰¹ The Minnesota Department of Agriculture expressed support for the development of an alternative vegetation management plan for the site that includes perennial agricultural crops.¹⁰²

IX. SITE PERMIT CRITERIA

72. Large electric power generating plants ("LEPGP") are governed by Minn. Stat. § 216E and Minn. R. part 7850. Minn. Stat. § 216E.01, subd. 5, 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."
73. On May 14, 2019, Elk Creek submitted information to EERA requesting a size determination for the Project. On May 20, 2019, EERA informed Elk Creek that, based on the information provided, the Project is subject to the Commission's siting authority under Minn. Stat. § 216E. Therefore, a site permit is required prior to construction of the Project.
74. A LEPPG powered by solar energy is eligible for the alternative permitting process authorized by Minn. Stat. § 216E.04. Elk Creek filed the SP Application under the process established by the Commission in Minn. R. parts 7850.2800-7850.3900.
75. Under Minn. Stat. § 216E.04, for a LEPPG permitted under the alternative permitting process, EERA prepares for the Commission an environmental assessment containing information on the human and environmental impacts of the proposed project and addresses mitigating measures. The environmental assessment is the only state environmental review document required to be prepared on the project.

⁹⁷ See generally, Pub. Hr'g Tr., GS Docket, eDockets Document No. [20208-165804-02](#).

⁹⁸ See generally, Pub. Hr'g Tr., GS Docket, eDockets Document No. [20208-165804-02](#).

⁹⁹ E.g., *Public Comment – Westgor* (August 10, 2020), *Chambers Family Farms* (August 10, 2020), *Schneiderman* (August 10, 2020) GS Docket, eDockets Document No. [20208-165787-01](#).

¹⁰⁰ Public Comment (July 24, 2020) GS Docket, eDockets Document No. [20207-165258-02](#).

¹⁰¹ Public Comment (July 21, 2020) GS Docket, eDockets Document No. [20207-165148-01](#).

¹⁰² Public Comment (August 10, 2020), GS Docket, eDockets Document No. [20208-165739-01](#).

76. EERA staff, is responsible for evaluating the site permit application and administering the environmental review process.

X. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT

A. Human Settlement

77. The Project is located in rural southwestern Minnesota. The population density in Vienna Township is 4.3 people per square mile.¹⁰³
78. The construction of the Project will not displace residents or change the demographics of the Land Control Area.¹⁰⁴

1. Zoning and Land Use

79. The Land Control Area is zoned as general agriculture. Rock County does have a Renewable Energy Ordinance that governs the development of large solar energy systems, that are not otherwise under the jurisdiction of the Commission, within the agricultural district through a conditional use permit. Elk Creek has applied the county standards for solar facilities where practicable.¹⁰⁵
80. There are no conservation easements held by public agencies or private organizations within the Land Control Area.¹⁰⁶
81. Development of the Project would result in the change of land use from a generally agricultural use to an industrial use for at least the life of the Project. After the useful life of the Project, the Preliminary Development Area could be restored to agricultural use or other planned use. This conversion of agricultural land into a solar farm will have a minimal impact on the rural character of the surrounding area or Rock County.¹⁰⁷
82. Of the 309,120 acres in Rock County, approximately 90 percent (approximately 280,537 acres) are classified as agricultural land; impacts to the 670.0 acres of agricultural land within the Project's Preliminary Development Area would reduce the amount of agricultural land in the county by less than one percent.¹⁰⁸
83. No other development plans have come to light for the immediate area for which the Project would serve as an impediment.¹⁰⁹

2. Property Values

¹⁰³ Ex. 7 at 38 (SP Application).

¹⁰⁴ Ex. 7 at 40 (SP Application).

¹⁰⁵ Ex. 106 at 89 (EA).

¹⁰⁶ Ex. 7 at 75 (SP Application).

¹⁰⁷ Ex. 106 at 89 (EA).

¹⁰⁸ Ex. 106 at 89 (EA).

¹⁰⁹ Ex. 106 at 89 (EA).

84. Because property values are influenced by a complex interaction between factors specific to each individual piece of real estate as well as local and national market conditions, the effect of one particular project on the value of one particular property is difficult to determine.¹¹⁰
85. The installation of the Project would create a limited visual impact at ground level or from a neighboring property. The Project is not expected to have emissions or noise impacts to adjacent land uses during operation of the facilities.¹¹¹
86. Widespread negative impacts to property value as a result of the Project are not anticipated. In unique situations, it is possible that specific, individual property values may be negatively impacted. Such impacts can be mitigated by proper siting, restoration and vegetation management and screening the site.¹¹²

3. Aesthetic Impacts

87. The existing landscape in the Land Control Area is generally flat and agricultural.¹¹³
88. Installation of the proposed Elk Creek Solar farm will result in visible landscape changes. Due to their low profile, the arrays will not be visible from a great distance, however, the above-ground layout option will have a larger impact. Aesthetic impacts will be experienced primarily by nearby residents and people using the roads adjacent to the Land Control Area. There are no residences or businesses within the Land Control Area, but there are four residences and several agricultural buildings on parcel adjacent to the Land Control Area. Three of the four residences have screening between the residence and the Project.¹¹⁴ Elk Creek has proposed screening for the residence without existing screening.¹¹⁵
89. The use of the below-ground or the hybrid electrical collection system would minimize the visual impact by reducing the number of aerial structures from a distance.¹¹⁶
90. In addition, Elk Creek will install lighting that is down lit to minimize impacts to adjacent uses.¹¹⁷
91. Section 4.3.7 of the Sample Site Permit requires the Applicant to consider visual impacts from landowners and land management agencies.

4. Public Service and Infrastructure

¹¹⁰ Ex. 106 at 113 (EA).

¹¹¹ Ex. 106 at 114 (EA).

¹¹² Ex. 106 at 115 (EA).

¹¹³ Ex. 106 at 99 (EA).

¹¹⁴ Ex. 106 at 99 – 100 (EA).

¹¹⁵ Ex. 17 (Burmeister Testimony).

¹¹⁶ Ex. 106 at 106 (EA).

¹¹⁷ Ex. 106 at 106 (EA).

92. The Project is located in a rural area in southwestern Minnesota. There is an established transportation and utility network that provides access and necessary services to the Project.¹¹⁸
93. During construction, temporary impacts are anticipated on some public roads adjacent to the Land Control Area. Construction activities will increase the amount of traffic using local roadways, but such use is not anticipated to result in adverse traffic impacts.¹¹⁹ Operation of the Project after construction will not noticeably increase traffic near the Land Control Area.¹²⁰
94. Elk Creek is currently negotiating a development and road use agreement with Rock County to address Project impacts to, permits for access and restoration of township and county roads. Vienna Township has signed a resolution delegating its authority to Rock County for Project purposes, including the development and road use agreement.¹²¹
95. Elk Creek will contact Gopher State One prior to construction to locate and avoid underground facilities. To the extent Project facilities cross or otherwise impact existing telephone lines or equipment, Elk Creek will enter into agreements with service providers to avoid interference with their facilities.¹²²
96. Elk Creek filed Federal Aviation Administration (“FAA”) 7460-1 Notice of Proposed Construction forms for the perimeter of the Land Control Area. On July 9, 2019, the FAA provided Determinations of No Hazard to air navigation for each of the four points around the Land Control Area. As such, Project facilities will not exceed obstruction standards and would not be a hazard to air navigation.¹²³
97. Section 4.3.4 of the Sample Site Permit requires Elk Creek to minimize disruption to public services and public utilities and to restore service promptly if disrupted by Elk Creek.

5. Recreational Resources

98. Recreational opportunities in the vicinity of the Project include hiking, biking, fishing, camping, cross country skiing, snowmobiling, hunting, and wildlife viewing.¹²⁴
99. There are no Wildlife Management Areas (“WMA”), Scientific and Natural Areas (“SNA”), and migratory waterfowl feeding or resting areas, or DNR mapped snowmobile trails within one miles of the Land Control Area.¹²⁵
100. No impacts to tourism or recreational opportunities are anticipated from the Project..¹²⁶

¹¹⁸ Ex. 106 at 28 - 29 (EA).

¹¹⁹ Ex. 106 at 123 (EA).

¹²⁰ Ex. 7 at 55 (SP Application).

¹²¹ Ex. 17 (Burmeister Testimony).

¹²² Ex. 7 at 54 (SP Application).

¹²³ Ex. 7 at 55 and 81 (SP Application); Ex. 106 at 123 (EA).

¹²⁴ Ex. 106 at 131 (EA).

¹²⁵ Ex. 106 at 131 (EA).

B. Public Health and Safety

101. The term EMF refers to electric and magnetic fields that are present around any electrical device. Electric fields arise from the voltage or electrical charges and magnetic fields arise from the flow of electricity or current that travels along transmission lines, power collection (feeder) lines, substation transformers, house wiring, and electrical appliances.¹²⁷
102. Based on the most current research on electromagnetic fields, and the distance between the Project and houses, the Project will have no impact to public health and safety due to EMF or magnetic fields.¹²⁸
103. Stray voltage (also referred to as neutral to earth voltage) is an extraneous voltage that appears on metal surfaces in buildings, barns and other structures, which are grounded to earth. Stray voltage is typically experienced by livestock which simultaneously come into contact with two metal objects (feeders, waterers, stalls). Problems are usually related to the distribution and services lines directly serving the farm or the wiring on a farm affecting confined farm animals. The potential for the Project to create stray voltage is negligible and if a fault would occur during operation it would be identified quickly by the facility's monitoring systems and corrected.¹²⁹
104. No significant impacts to public safety are expected to result from construction and operation of the Project.
105. Section 4.3.19 of the Sample Site Permit contains conditions to address public safety. In accordance with those conditions, Elk Creek will provide educational materials to landowners adjacent to the Land Control Area and, upon request, to interested persons about the Project and any restrictions or dangers associated with the Project. Elk Creek will also provide any necessary safety measures such as warning signs and gates for traffic control or to restrict public access. In addition, Elk Creek will submit the location of all underground facilities to Gopher State One Call after construction is completed.¹³⁰

C. Land-based Economies

1. Local Economy

106. The Project will result in both short- and long-term benefits to the local economy. Local contractors and suppliers will be used for portions of the construction, and total wages and salaries paid to contractors and workers in Rock County.¹³¹ Several commenters at

¹²⁶ Ex. 106 at 131 (EA).

¹²⁷ Ex. 106 at 116 (EA).

¹²⁸ Ex. 106 at 116 and 119 (EA).

¹²⁹ Ex. 106 at 120 (EA).

¹³⁰ Ex. 106 at 200 (EA).

¹³¹ Ex. 7 at 49 (SP Application).

the public hearing noted that the Project is expected to result in well-paying construction jobs in the area.¹³²

107. Landowners that own portions of the Land Control Area will receive lease payment annually for the life of the Project or will receive a sales price for the sale of their land to Elk Creek.¹³³
108. In addition to the creation of jobs and personal income, the Project will pay an Energy Production Tax to the local units of government of approximately \$180,000 annually or approximately 4.5 Million over 25 years.¹³⁴

2. Agriculture

109. The majority of the Land Control Area is in agricultural use, comprising 938.4 acres (96.1 percent). Developed land uses comprise 33.0 acres (3.4 percent) of the Land Control Area. Forested or shrubland comprises a combined 4.5 acres (0.5 percent) of the Land Control Area.¹³⁵
110. Up to approximately 670.1 acres of agricultural land will be taken out of agricultural production where the fenced portion of the Project is located.¹³⁶ A 295-acre portion of the land currently under lease that will not be utilized by the Project will be excluded from the area leased by Elk Creek during the operation of the Project. The underlying landowner can then continue to farm the area released from the lease for the life of the Project.¹³⁷
111. In lieu of agricultural production, landowners will receive lease payments or the purchase price for the sale of their property to Elk Creek.¹³⁸
112. The presence of the Project will not significantly impact the agricultural land use or general character of the area. Impacts to the 670.0 acres of agricultural land within the Project's Preliminary Development Area would reduce the amount of agricultural land in the County by less than one percent.¹³⁹

3. Prime Farmland

113. 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 (the land could be

¹³² E.g., See generally, Pub. Hr'g Tr., GS Docket, eDockets Document No. [20208-165804-02](#); see also Public Comment (July 24, 2020) GS Docket, eDockets Document No. [20207-165258-02](#).

¹³³ Ex. 7 at 49 (SP Application); Ex. 106 at 98 (EA).

¹³⁴ Ex. 106 at 94-95 (EA).

¹³⁵ Ex. 7 at 51 (SP Application).

¹³⁶ Ex. 7 at 52 (SP Application).

¹³⁷ Ex. 7 at 6 (SP Application).

¹³⁸ Ex. 7 at 49 (SP Application); Ex. 106 at 98 (EA).

¹³⁹ Ex. 106 at 89 (EA).

cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water).¹⁴⁰

114. Minn. R. part 7850.4400, subp. 4 prohibits use of more than 0.5 acre of prime farmland per MW of net generating capacity for sites where large generating plants are located, unless no feasible and prudent alternative exists.¹⁴¹
115. There will be direct impacts to agriculture from the Project through the use of 554 acres of prime farmland and 126 acres of prime farmland if drained taken out of production for the life of the Project. Minn. R. part 7850.4400, subp. 4 would allow 40 acres of prime farmland for the Project unless there is no feasible and prudent alternative.¹⁴²
116. After Elk Creek submitted the SP Application, EERA and the Department of Agriculture developed a guidance document to assist developers when evaluating potential solar sites relative to the feasible and prudent language in the rule.¹⁴³ The guidance document is meant to assist developers in defining feasible and prudent in relation to siting alternatives in light of the dual mandates in Minnesota to advance solar energy production and protect prime farmland and due to the inherent difficulties in avoiding prime farmland. The guidance is meant to assist developers in defining feasible and prudent in relation to siting alternatives and encourage them to build a record early in the site selection process showing whether or not an exception to the prime farmland exclusion is warranted..¹⁴⁴
117. Elk Creek explored Rock County for a solar project based on the high solar resource in the southwestern portion of Minnesota together with a supportive community and the positive experiences Elk Creek's owner, Geronimo, had while developing the Prairie Rose Wind Farm in Rock County.¹⁴⁵ The annual average daily total solar resource near the Project is among the highest in the state of Minnesota.¹⁴⁶
118. Elk Creek identified Magnolia substation as a potential interconnect location in Rock County because of its available capacity to interconnect the Project to the transmission system, a general lack of environmental constraints and the presence of adequate roads for access to a site and relatively flat unobstructed terrain in the vicinity of the substation to maximize the utilization of the solar resource.¹⁴⁷
119. Elk Creek then met with landowners within approximately five miles of the Magnolia substation to gauge whether there was enough interest from relatively contiguous landowners in voluntary participating in the Project. This distance was selected to account for transmission interconnect efficiency, which is essential to successful Project

¹⁴⁰ Ex. 106 at 63 (EA).

¹⁴¹ Ex. 106 at 139 (EA).

¹⁴² Ex. 106 at 139 (EA).

¹⁴³ Ex. 106 at 68 (EA); *See also* Solar Energy Production and Prime Farmland (May 19, 2020) Available online at <https://mn.gov/eera/web/project-file/11367/>.

¹⁴⁴ Ex. 106 at 68 (EA)

¹⁴⁵ Ex. 7 at 8, 9 (SP Application).

¹⁴⁶ Ex. 7 at 9 (SP Application) ; Ex. 106 at 70 (EA).

¹⁴⁷ Ex. 7 at 8 (SP Application).

development. Siting the Project in close proximity to an existing substation allows Elk Creek to make efficient use of existing equipment, minimize line loss and avoid the need for large transmission construction. Elk Creek ultimately signed leases and/or purchase options with landowners that owned relatively flat, unobstructed, generally contiguous parcels of land, with limited environmental constraints directly adjacent to the Magnolia substation that were willing to host Project facilities.¹⁴⁸

120. Elk Creek examined the soils located even farther from the substations than the initial five-mile selection criteria described above and determined that a larger radius would not have resulted in decreased prevalence of prime farmland, while the increased distance would increase the necessary interconnection infrastructure. Prime farmland, and its sub-categories, are mapped throughout Rock and Nobles County except along larger waterway drainages comprised of floodplains and wetlands and a bedrock outcropping associated with Blue Mounds State Park in Rock County, which is a prohibited site.¹⁴⁹ In Rock County, 91 percent of the soils are classified as prime farmland.¹⁵⁰ Accordingly, there is no alternative site or area in the either county, let alone within an area within five miles of the Magnolia substation, that is conducive to solar development of approximately 700 acres that is not defined as prime farmland.¹⁵¹
121. No alternatives to Elk Creek's proposed site were presented at the public meeting or during the public comment period.¹⁵²
122. There is no feasible and prudent alternative available to Elk Creek, near the Magnolia substation or otherwise in Rock or Nobles County to construct the Project and not impact prime farmland.
123. A generic 80 MW solar farm sited elsewhere in Minnesota, if sited in the highly solar productive southwestern portion of the state, would be expected to have similar agricultural/prime farm land impacts.¹⁵⁴
124. While LWECS (wind farm) sites tend to be larger (on a wind rights basis or what is referred to as the "box") than solar farm sites, the direct on the ground impact (footprint) is much less with a wind farm. As such, generically, a solar farm will have relatively greater impacts on land use and agriculture than a wind farm. Solar farms require 7 to 10 acres of land per MW, while wind farms require about 0.75 acres per turbine or approximately 0.3 acres of land per MW. Accordingly, from a land use perspective wind farm projects are relatively more compatible with agricultural production.¹⁵⁵
125. Elk Creek has developed an Agricultural Impact Mitigation Plan ("AIMP") and a Vegetation Management Plan ("VMP") to identify measures that Elk Creek and its

¹⁴⁸ Ex. 7 at 8 (SP Application).

¹⁴⁹ Ex. 7 at 10 (SP Application)

¹⁵⁰ Ex. 106 at 70 (EA).

¹⁵¹ Ex. 7 at 10 (SP Application); Ex. 106 at 69 and 70 (EA).

¹⁵² Exs. 102 and 103 (Written and Oral Comments on Env. Scope); Ex. 106 at 70 (EA).

¹⁵⁴ Ex. 106 at 71 (EA).

¹⁵⁵ Ex. 106 at 72 (EA).

contractors can take to avoid, repair and/or mitigate for potential negative agricultural impacts from the construction, operation, and eventual decommissioning of the Project; these plans outline measures designed to ensure the land may be returned to future agricultural usages following the closure and decommissioning of the Project.¹⁵⁶

- 126. Elk Creek developed its AIMP in coordination with the Minnesota Department of Agriculture.¹⁵⁷
- 127. Sections 4.3.1, 4.3.2, 4.3.3, 4.3.9, 4.3.10, 4.3.11, and 4.3.15 of the Sample Site Permit are all conditions that address agricultural related issues associated with the Project.

D. Archaeological and Historic Resources

- 128. Elk Creek's consultant, Area M Consulting ("Area M") conducted a Phase I culture resources investigation of the Land Control Area. No previously recorded archaeological or historic sites, historic architectural resources, or previous cultural resources inventories were noted within one-half mile of the Land Control Area. Area M conducted a Phase I field inventory of the Land Control Area in April and May 2019 and did not identify any cultural resources during the survey.¹⁵⁸
- 129. Area M submitted the Phase I inventory report to the Minnesota State Historic Preservation Office ("SHPO"). In a letter dated July 3, 2019, SHPO concurred with Area M's recommendation that the Project would not affect historic properties listed in or eligible for listing in the National Register of Historic Places ("NRHP").¹⁵⁹ The construction and operation of the Project will not impact historic properties listed in, eligible for, or potentially eligible for listing in the NRHP.¹⁶⁰
- 130. Section 4.3.13 of the Sample Site Permit requires Elk Creek to make every effort to avoid impacts to identified archaeological and historic resources. If a resource is encountered, Elk Creek shall contact and consult with SHPO and Office of the State Archaeologist ("OSA"). Where feasible, avoidance of the resource is required. Where not feasible, mitigation must include an effort to minimize Project impacts consistent with SHPO and OSA requirements. In addition, before construction, workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties are found. If human remains are found during construction, Elk Creek shall immediately halt construction at such location and promptly notify local law enforcement and OSA. Construction at such location shall not proceed until authorized by local law enforcement or OSA.

E. Natural Environmental

1. Wildlife

¹⁵⁶ Ex. 7 at Appendix C (SP Application); Ex. 106 at 70 (EA).

¹⁵⁷ Ex. 7 at 83 (SP Application).

¹⁵⁸ Ex. 7 at 57; Appendix D (SP Application).

¹⁵⁹ Ex. 7 at 35-36, 38 (SP Application).

¹⁶⁰ Ex. 106 at 134 (EA).

- 131. The resident wildlife species in the Land Control Area are representative of game and non-game fauna accustomed to agricultural habitats.¹⁶¹
- 132. Given the agricultural nature of the Land Control Area, impacts to the current wildlife inhabiting the area are expected to be temporary and minimal.¹⁶²
- 133. Under Section 8.12 of the Sample Site Permit, Elk Creek will be required to report any wildlife injuries and fatalities to the Commission on a quarterly basis.

2. Vegetation

- 134. The majority of the land area within the Land Control Area is cultivated agricultural land.¹⁶³
- 135. No native prairie was identified in the Land Control Area during surveys conducted by Elk Creek.¹⁶⁴
- 136. The primary impact from construction of the Project would be the cutting, clearing, and removal of existing vegetation within the Preliminary Development Area. The degree of impact would depend on the type and amount of vegetation affected, the rate at which the vegetation would regenerate after construction (restoration), and whether periodic vegetation maintenance would be conducted during operation. Secondary effects from disturbances to vegetation could include increased soil erosion, increased potential for the introduction and establishment of invasive and noxious weed species, and a temporary local reduction in available wildlife habitat.¹⁶⁵
- 137. Elk Creek will avoid disturbance of the only delineated wetland located in the Land Control Area during Project construction and operation.¹⁶⁶
- 138. The Project has been designed to avoid all tree clearing.¹⁶⁷
- 139. Section 4.3.6 of the Sample Site Permit provides that Project facilities will not be placed in native prairie unless addressed in a Prairie Protection and Management Plan and shall not be located in areas enrolled in the Native Prairie Bank Program. This section further requires Elk Creek to prepare a Prairie Protection and Management Plan in consultation with MDNR if native prairie is identified within the site boundaries.
- 140. Section 4.3.8 of the Sample Site Permit requires implementation of site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators.

¹⁶¹ Ex. 106 at 72 (EA).

¹⁶² Ex. 106 at 74 (EA).

¹⁶³ Ex. 7 at 51 (SP Application).

¹⁶⁴ Ex. 15 (Schmit Testimony).

¹⁶⁵ Ex. 106 at 86 (EA).

¹⁶⁶ Ex. 7 at 67; Appendix B (SP Application).

¹⁶⁷ Ex. 7 at 68 (SP Application).

141. Elk Creek has developed a VMP to identify measures that Elk Creek and its contractors will utilize to guide site preparation, installation of prescribed seed mixes, management of invasive species and noxious weeds, and control of erosion/sedimentation. The VMP includes seeding and management measures needed to establish long-term perennial vegetation on the site during operation of the Project.

3. Soils, Geologic, and Groundwater Resources

142. Construction of the facilities will disturb up to 680 acres. As with any ground disturbance, construction of the Project has the potential for soil compaction, erosion, and sedimentation. Construction may require some amount of grading to provide a level surface for the solar arrays. Additional soil impacts will result from the installation of direct-embedded piers that support the solar arrays.¹⁶⁸
143. Based on the electrical configuration, impacts to soils will differ. The above-ground collection configuration would have least amount of soil impacts because only a small portion of the DC and AC collection would be trenched into the ground. The hybrid collection system will have the more soil impacts than the above-ground system, but less than the below-ground system.¹⁶⁹
144. Elk Creek will obtain a National Pollutant Discharge Elimination System (“NPDES”) permit to discharge stormwater from construction facilities from MPCA. Best management practices (“BMPs”) will be used during construction and operation to protect topsoil and adjacent resources and to minimize soil erosion. In addition, a Stormwater Pollution Prevention Plan (“SWPPP”) will be developed prior to construction that will include BMPs such as silt fencing, revegetation plans, and management of exposed soils to prevent erosion.¹⁷⁰
145. There is one domestic well within the Land Control Area.¹⁷¹ If the well has not been capped, Elk Creek will cap the well in accordance with state regulations during construction.¹⁷²
146. Impacts to geologic and groundwater resources are not anticipated. Elk Creek has developed an AIMP to identify measures that Elk Creek and its contractors can take to avoid, repair and/or mitigate for potential negative soil impacts from the construction, operation, and eventual decommissioning of the Project.¹⁷³

4. Surface Water and Wetlands

147. Elk Creek identified surface water and floodplain resources for the Project area by reviewing U.S. Geological Survey (“USGS”) topographic maps, National Wetlands Inventory (“NWI”) maps and Minnesota Public Waters Inventory (“PWI”) maps together

¹⁶⁸ Ex. 7 at 64-66 (SP Application).

¹⁶⁹ Ex. 7 at 64 (SP Application).

¹⁷⁰ Ex. 7 at 67 (SP Application).

¹⁷¹ Ex. 7 at 60 (SP Application).

¹⁷² Ex. 7 at 61 (SP Application).

¹⁷³ Ex. 7 at Appendix C (SP Application); Ex. 106 at 70 (EA).

with a field wetland delineation.¹⁷⁴ One wetland was delineated in the Land Control Area.¹⁷⁵

148. The Project will not require the appropriation of surface water or permanent dewatering. Temporary dewatering may be required during construction for electrical trenches. Project facilities have the potential to impact surface water runoff and cause sedimentation; however, these impacts are expected to be minimal. The Project will not impact known floodplain areas.¹⁷⁶
149. Elk Creek will avoid disturbance of the only delineated wetland located in the Land Control Area during Project construction and operation.¹⁷⁷
150. Elk Creek has preliminarily designed 13 stormwater drainage basins within existing low-lying areas to help control runoff during rain events.¹⁷⁸
151. Section 4.3.5 of the Sample Site Permit limits impacts to public waters resources and requires construction in wetland areas during frozen ground conditions to minimize impacts, to the extent feasible. If construction in the winter is not possible, wooden or composite mats shall be used to protect wetland vegetation.

5. Air and Water Emissions

152. Temporary short-term air quality impacts would occur during the construction phase of the Project. Once operational, the Project would not generate criteria pollutants or carbon dioxide.¹⁷⁹
153. 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 that may be needed for foundations (either for inverter boxes, or in some limited cases, the array piers).¹⁸⁰
154. 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 vehicles will be minimized by keeping construction equipment in a good working order.¹⁸¹

6. Solid and Hazardous Wastes

¹⁷⁴ Ex. 7 at 67 (SP Application).

¹⁷⁵ Ex. 6 at 57 (SP Application).

¹⁷⁶ Ex. 7 at 5, 61 (SP Application).

¹⁷⁷ Ex. 7 at 67; Appendix B (SP Application).

¹⁷⁸ Ex. 7 at 67 (SP Application).

¹⁷⁹ Ex. 106 at 40 (EA).

¹⁸⁰ Ex. 106 at 40 (EA).

¹⁸¹ Ex. 106 at 40 (EA).

155. Potential hazardous materials within the Land Control Area are typical of agricultural uses and may include contamination from petroleum products (diesel fuel, gasoline, natural gas, heating oil, lubricants, and maintenance chemicals), pesticides and herbicides. The proposed Project would generate solid waste during construction including construction debris such as scrap wood, plastics, cardboard and scrap metals. Petroleum products would also be present on site, such as oil and fuel. Operation of the Project is not expected to generate significant quantities of solid and hazardous waste materials. Small quantities of hydraulic oil, lube oil, grease, and cleaning fluid will be maintained and stored at the operations and maintenance building, and as these fluids are replaced the waste products will be handled and disposed of through an approved disposal firm as required by regulations.¹⁸²
156. If any wastes, fluids, or pollutants are generated during any phase of the operation of the Project, they will need to be handled, processed, treated, stored, and disposed of through a waste disposal firm.¹⁸³
157. PV solar panels are nearly entirely encapsulated in glass and aluminum, which are not hazardous materials. The PV solar panels do, however, contain small amounts of metals that are, by themselves, characterized as hazardous materials by the United States Environmental Protection Agency (“EPA”). Each of the manufacturers being considered by Elk Creek to provide PV solar panels completes EPA testing and has determined that no hazardous materials (including arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver) leached from the tested products resulting in leachate concentrations above the EPA’s regulatory thresholds. Accordingly, the risk to the environment from the contents of the PV solar panels will be minimal. If a PV solar panel is broken at the Project, the broken pieces and the remainder of the panel will be recycled or disposed of and replaced, thereby further reducing the risk for hazardous materials contained in the PV solar panels to leach into the environment.¹⁸⁴
158. Section 4.3.16 of the Sample Site Permit requires that all waste and scrap that is the product of construction shall be removed from the site and all premises on which construction activities were conducted and properly disposed of upon completion of each task. In addition, Section 4.3.17 of the Sample Site Permit requires Elk Creek to take all appropriate precautions against pollution of the environment and makes Elk Creek responsible for compliance with all laws applicable to the generation, storage, transportation, clean up, and disposal of all wastes generated during construction and restoration of the site.

F. Rare and Unique Natural Resources

159. Section 7 of the Endangered Species Act (“ESA”) requires that all federal agencies consider and avoid, if possible, adverse impacts to federally-listed threatened or

¹⁸² Ex. 106 at 56-57 (EA).

¹⁸³ Ex. 106 at 58 (EA).

¹⁸⁴ Ex. 16 (Morris Testimony).

endangered species or their critical habitats, which may result from their direct, regulatory, or funding actions.¹⁸⁵

160. Elk Creek contacted USFWS and MDNR and their respective data bases to review the Project for threatened and endangered species and unique habitats.¹⁸⁶
161. Natural Heritage Information Systems (“NHIS”) data noted that two state-listed fish species (i.e., the Topeka shiner and plains topminnow) are found within one mile of the Land Control Area.¹⁸⁷ No perennial streams, including the stream named Elk Creek are located within the Land Control Area and therefore direct impacts to these species are not anticipated.¹⁸⁸
162. Four species that are listed as threatened or endangered under the federal ESA may occur and designated critical habitat for the federally listed Topeka shiner is present in Rock County, Minnesota.¹⁸⁹ Impacts to the four ESA listed species and the Topeka shiner critical habitat are not anticipated.¹⁹⁰
163. Sections 4.3.8 and 4.3.6 of the Sample Site Permit identifies conditions to monitor and mitigate the Project’s potential impacts on rare and unique natural resources.

G. Future Development and Expansion

164. Elk Creek initially filed an interconnection application request for 200 MW. Elk Creek plans to reduce the request to 80 MW to reflect the proposed nameplate of the Project. Elk Creek, however, reserved the right to transfer a portion of its transmission service, per Federal Energy Regulatory Commission Order No. 845 and Order No. 845-A, but has no plans to expand the proposed Project at this time.¹⁹¹

XI. SITE PERMIT CONDITIONS

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

¹⁸⁵ Ex. 7 at 68 (SP Application).

¹⁸⁶ Ex. 7 at 76 -78, 80-82 (SP Application).

¹⁸⁷ Ex. 106 at 10 (EA).

¹⁸⁸ Ex. 106 at 72 (EA).

¹⁸⁹ Ex. 106 at 80 (EA).

¹⁹⁰ Ex. 106 at 80, 82 and 83 (EA).

¹⁹¹ Ex. 7 at 14 (SP Application).

167. On July 17, 2020, Elk Creek requested that Section 4.3.8 of the Sample Site Permit be revised to allow Elk Creek to plant perennial native vegetation in the Preliminary Development Area that can be harvested as a hay crop to meet local agricultural needs as indicated in the Vegetation Management Plan for the Project.¹⁹²
168. On July 21, 2020, the MDNR provided suggested changes to Section 4.3.8 of the Sample Site Permit related to Beneficial Habitat. The revisions are as follows:

The Permittee shall implement site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators; ~~and that enhances~~ **improving** soil water retention and reducing storm water runoff and erosion. The Permittee shall develop a vegetation management plan ~~that incorporates, to the extent applicable and appropriate, the technical guidance and best management practices outlined in the DNR's Prairie Establishment and Maintenance Technical Guidance for Solar Projects.~~ **The vegetation management plan shall be filed at least 30 days prior to the preconstruction meeting, using best management practices established by the Minnesota DNR and the Minnesota Board of Soil and Water Resources. The vegetation management plan shall be prepared in coordination with EERA, DNR, MDA, and BWSR.**

The vegetation management plan and documentation of the coordination efforts between the permittee and the coordinating agencies shall be filed at least 14 days prior to the preconstruction meeting. To ensure continued management and recognition of beneficial habitat, the Permittee is encouraged to seek certification of the project by following guidance set forth by the Pollinator Plan provided by the Board of Water and Soil Resources. meet the standards for Minnesota's Habitat Friendly Solar Program by submitting project plans, seed mixes, a completed project planning assessment form, and any other applicable documentation used to meet the standard to the Minnesota Board of Water and Soil Resources. All documents required by BWSR for meeting standards of the Minnesota's Habitat Friendly Solar Program should also be filed with the Commission.

4.3.8.1 Site Planning and Management

The Vegetation Management Plan must include the following:

- Management objectives addressing short term (year 0-3, seeding and establishment) and long term (year 4 through the life of the permit) objectives.**
- A description of planned restoration and vegetation activities, including how the site will be prepared, timing of activities, and how seeding will occur (broadcast, drilling, etc.), and the types of seed mixes to be used.**
- A description of how the site will be monitored and evaluated to meet management objectives.**
- A description of management tools used to maintain vegetation (e.g. mowing, spot spraying, hand removal, fire, grazing, etc.), including timing/frequency of maintenance activity.**
- Identify responsible party for site restoration, monitoring, and long-term vegetation management of the site (e.g. consultant, contractor, site manager, etc.).**

¹⁹² Ex. 15 at 7 (Schmit Testimony).

- Identification, monitoring and management of noxious weeds and invasive species (native and non-native) on site.

Site plan showing how the site will be revegetated and corresponding seed mixes. Seed mixes, seeding rates, and cover crops should follow best management practices.

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

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

CONCLUSIONS OF LAW

1. The Commission and the Administrative Law Judge have jurisdiction over the site permit applied for by Elk Creek for the up to 80 MW AC proposed Project pursuant to Minn. Stat. § 216E.03.
2. Elk Creek has substantially complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.
3. The Commission has complied with the procedural requirements of Minn. Stat. Ch. 216E and Minn. R. Ch. 7850.
4. A public hearing was conducted remotely in accordance with government directives due to the COVID-19 pandemic. Proper notice of the public hearing was provided, and the public was given an opportunity to speak at the hearing and to submit written comments.
5. The Commission has the authority under Minn. Stat. § 216E.03 to place conditions in a LEPGP site permit.
6. The sample site permit contains a number of important mitigation measures and other reasonable conditions.
7. It is reasonable to amend the Sample Site Permit to include the changes to Sections 4.3.8 of the sample site permit as proposed by Elk Creek and the MDNR.
8. There is no potential site in either Rock or Nobles County, within an area of five miles of the Magnolia substation, that is conducive to solar development of approximately 700 acres that is not defined as prime farmland. Within this geographical limitation, there is no feasible and prudent alternative to the Elk Creek Solar Project site.
9. The Project, with the 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.

10. The Project, with the permit conditions discussed above, does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act and/or the Minnesota Environmental Policy Act.
11. Any of the foregoing Conclusions of Law which are more properly designated Findings of Fact are hereby adopted as such.

RECOMMENDATION

Based upon these Conclusions, the Commission shall issue a site permit to Elk Creek Solar, LLC, to construct and operate the up to 80 MW AC Elk Creek Solar Project in Rock County, and that the permit include the draft permit conditions amended as set forth in paragraph seven of the Conclusions above.

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**SITE PERMIT FOR A
SOLAR ENERGY GENERATING SYSTEM**

**IN
ROCK COUNTY**

**ISSUED TO
ELK CREEK SOLAR, LLC**

PUC DOCKET NUMBER IP-7009/GS-19-495

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850 this site permit is hereby issued to:

ELK CREEK SOLAR, LLC

The Permittee is authorized by this site permit to construct and operate an up to 80 MW alternating current nameplate capacity solar energy conversion system and associated facilities in Vienna Township, Rock County, Minnesota. The solar energy generating system and associated facilities shall be built and operated within the site identified in this permit and as portrayed in the official site maps, and in compliance with the conditions specified in this permit.

This site permit shall expire 30 years from the date of this approval.

Approved and adopted this ____ day of _____

BY ORDER OF THE COMMISSION

Will Seuffert,
Executive Secretary

To request this document in another format such as large print or audio, call 651.296.0406 (voice). Persons with a hearing or speech impairment may call using their preferred Telecommunications Relay Service or email consumer.puc@state.mn.us for assistance.

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ATTACHMENTS

Attachment 1 – Complaint Handling Procedures for Permitted Energy Facilities

Attachment 2 – Compliance Filing Procedure for Permitted Energy Facilities

Attachment 3 – Site Maps

1 SITE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this site permit to Elk Creek Solar, LLC (Permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850. This permit authorizes Elk Creek Solar, LLC to construct and operate an up to 80 MW alternating current nameplate capacity solar energy conversion system and associated facilities in Vienna Township of Rock County, Minnesota, and as identified in the attached site maps, hereby incorporated into this document.

1.1 Preemption

Pursuant to Minn. Stat. § 216E.10, this permit shall be the sole site approval required for the location, construction, and operation of the solar energy generating system and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

2 PROJECT DESCRIPTION

The project is an up to 80 MW alternating current (“AC”) nameplate capacity solar energy conversion facility in Vienna Township, Rock County, Minnesota.

2.1 Associated Facilities

In addition to the photovoltaic solar panels, associated facilities include racking; inverters, security fencing, a Project substation, gravel access roads, an operations and maintenance building, on-site below-ground, above-ground or a hybrid combination of above-ground and below-ground electrical collection and communication lines, and up to two weather stations.

2.2 Project Location

The project is located in the following:

County	Township Name	Township	Range	Sections
Rock	Vienna	103N	44W	27, 34, 35

3 DESIGNATED SITE

The site designated by the Commission for the Elk Creek Solar Project is the site depicted on the site maps attached to this permit. The project would be constructed on approximately 681 acres of leased and purchased land within the 976-acre Land Control Area.

The layout represents the approximate location of photovoltaic tracker rows and associated facilities within the project boundary and identifies a layout that seeks to minimize the overall potential human and environmental impacts of the project, which were evaluated in the permitting process. The project boundary serves to provide the Permittee with the flexibility to make minor adjustments to the layout to accommodate requests by landowners, local government units, federal and state agency requirements, and unforeseen conditions encountered during the detailed engineering and design process. Any modification to the location of a photovoltaic tracker row or other associated facility depicted in the preliminary layout shall be done in such a manner to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 8.3.

4 GENERAL CONDITIONS

The Permittee shall comply with the following conditions during construction and operation of the solar energy generating system and associated facilities over the life of this permit.

4.1 Permit Distribution

Within 30 days of permit issuance, the Permittee shall send a copy of the permit and the complaint procedures to any regional development commission, county auditor and environmental office, and city and township clerk in which any part of the site is located.

Within 30 days of permit issuance, the Permittee shall provide all affected landowners with a copy of this permit and the complaint procedures. In no case shall the landowner receive this site permit and complaint procedures less than five days prior to the start of construction on their property. An affected landowner is any landowner or designee that is within or adjacent to the permitted site.

4.2 Access to Property

The Permittee shall contact landowners prior to entering the property or conducting maintenance within the site, unless otherwise negotiated with the affected landowner.

4.3 Construction and Operation Practices

The Permittee shall comply with the construction practices, operation and maintenance practices, and material specifications described in the Elk Creek Solar Application for a Site Permit dated September 13 and 16,, 2020, and the record of the proceedings unless this permit establishes a different requirement in which case this permit shall prevail.

4.3.1 Field Representative

The Permittee shall designate a field representative responsible for overseeing compliance with the conditions of this permit during construction of the project. This person shall be accessible by telephone or other means during normal business hours throughout site preparation, construction, cleanup, and restoration.

The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the field representative 14 days prior to commencing construction. The Permittee shall provide the field representative's contact information to affected landowners, residents, local government units and other interested persons 14 days prior to commencing construction. The Permittee may change the field representative at any time upon notice to the Commission, affected landowners, local government units and other interested persons.

4.3.2 Site Manager

The Permittee shall designate a site manager responsible for overseeing compliance with the conditions of this permit during the commercial operation and decommissioning phases of the project. This person shall be accessible by telephone or other means during normal business hours for the life of this permit.

The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the site manager 14 days prior to commercial operation of the facility. The Permittee shall provide the site manager's contact information to affected landowners, residents, local government units and other interested persons 14 days prior to commercial operation of the facility. The Permittee may change the site manager at any time upon notice to the Commission, affected landowners, local government units and other interested persons.

4.3.3 Employee Training and Education of Permit Terms and Conditions

The Permittee shall inform and educate all employees, contractors, and other persons involved in the construction and ongoing operation of the solar energy generating system of the terms and conditions of this permit.

4.3.4 Public Services and Public Utilities

During construction, the Permittee shall minimize any disruption to public services and public utilities. To the extent disruptions to public services or public utilities occur these will be temporary, and the Permittee will restore service promptly. Where any impacts to utilities have the potential to occur the Permittee will work with both landowners and local agencies to determine the most appropriate mitigation measures if not already considered as part of this permit.

The Permittee shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4.3.5 Temporary Work Space

Temporary work space and equipment staging areas shall be selected to limit the removal and impacts to vegetation. Temporary work space shall not be sited in wetlands or native prairie as defined in sections 4.3.10 and 4.3.11. Temporary work space shall be sited to comply with standards for development of the shorelands of public waters as defined in Section 4.3.10. Temporary easements outside of the authorized site boundary will be obtained from affected landowners through rental agreements and are not provided for in this permit.

4.3.6 Noise

The Permittee shall comply with noise standards established under Minn. R. 7030.0100 to 7030.0080, at all times at all appropriate locations during operation of the facility. Construction and maintenance activities shall be limited to daytime working hours to the extent practicable to ensure nighttime noise level standards will not be exceeded.

4.3.7 Aesthetics

The Permittee shall consider input pertaining to visual impacts from landowners and land management agencies. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and operation.

4.3.1 Topsoil Protection

The Permittee shall implement measures to protect and segregate topsoil from subsoil on all lands unless otherwise negotiated with the affected landowner.

4.3.2 Soil Compaction

The Permittee shall implement measures to minimize soil compaction of all lands during all phases of the project's life and shall confine compaction to as small an area as practicable.

4.3.3 Soil Erosion and Sediment Control

The Permittee shall implement erosion prevention and sediment control practices recommended by the Minnesota Pollution Control Agency (MPCA) Construction Stormwater Program. If construction of the facility disturbs more than one acre of land, or is sited in an area designated by the MPCA as having potential for impacts to water resources, the Permittee shall obtain a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit from the MPCA that provides for the development of a Stormwater Pollution Prevention Plan (SWPPP) that describes methods to control erosion and runoff.

The Permittee shall implement reasonable measures to minimize erosion and sedimentation during construction and shall employ perimeter sediment controls, protect exposed soil by promptly planting, seeding, using erosion control blankets and turf reinforcement mats, stabilizing slopes, protecting storm drain inlets, protecting soil stockpiles, and controlling vehicle tracking. Contours shall be graded as required so that all surfaces provide for proper drainage, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation and prevent erosion. All areas disturbed during construction of the facilities shall be returned to pre-construction conditions.

4.3.4 Public Lands

In no case shall photovoltaic tracker rows and associated facilities including foundations, access roads, underground cable, and transformers, be located in the public lands identified in Minn. R. 7850.4400, subp. 1, or in federal waterfowl production areas. Photovoltaic tracker rows and associated facilities shall not be located in the public lands identified in Minn. R. 7850.4400, subp. 3, unless there is no feasible and prudent alternative.

4.3.5 Wetlands and Water Resources

Photovoltaic tracker rows and associated facilities, including access roads, underground cable and transformers shall not be placed in public waters and public waters wetlands, as shown on the public water inventory maps prescribed by Minnesota Statutes Chapter 103G, except that electric collector or feeder lines may cross or be placed in public waters or public waters wetlands subject to permits and approvals by the Minnesota Department of Natural Resources (DNR) and the United States Army Corps of Engineers (USACE), and local units of government as implementers of the Minnesota Wetlands Conservation Act. Photovoltaic tracker rows and associated facilities including foundations, access roads, underground cable and transformers, shall be located in compliance with the standards for development of the shorelands of public waters as identified in Minn. R. 6120.3300, and as adopted, Minn. R. 6120.2800, unless there is no feasible and prudent alternative.

Construction in wetland areas shall occur during frozen ground conditions to minimize impacts, to the extent feasible. When construction during winter is not possible, wooden or composite mats shall be used to protect wetland vegetation. Soil excavated from the wetlands and riparian areas shall be contained and managed in accordance with all applicable wetland permits. Wetlands and riparian areas shall be accessed using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts.

Wetland and water resource areas disturbed by construction activities shall be restored to pre-construction conditions in accordance with the requirements of applicable state and federal permits or laws and landowner agreements. All requirements of the USACE, DNR, and local units of government shall be met.

4.3.6 Native Prairie

Solar panels and associated facilities including foundations, access roads, collector and feeder lines, underground cable, and transformers shall not be placed in native prairie, as defined in Minn. Stat. § 84.02, subd. 5, unless addressed in a prairie protection and management plan and shall not be located in areas enrolled in the Native Prairie Bank Program. Construction activities, as defined in Minn. Stat. § 216E.01, shall not impact native prairie unless addressed in a prairie protection and management plan.

The Permittee shall prepare a prairie protection and management plan in consultation with the DNR if native prairie, as defined in Minn. Stat. § 84.02, subd. 5, is identified within the site

boundaries. The Permittee shall file the plan 30 days prior to submitting the site plan required by Section 8.3 of this permit. The plan shall address steps that will be taken to avoid impacts to native prairie and mitigation to unavoidable impacts to native prairie by restoration or management of other native prairie areas that are in degraded condition, by conveyance of conservation easements, or by other means agreed to by the Permittee, the DNR, and the Commission.

4.3.7 Vegetation Removal

The Permittee shall disturb or clear vegetation on the site only to the extent necessary to assure suitable access for construction, and for safe operation and maintenance of the project. The Permittee shall minimize the number of trees removed in selecting the site layout specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences, and other vegetation, to the extent that such actions do not violate sound engineering principles or interfere with the operation of the facility.

4.3.8 Beneficial Habitat

The Permittee shall implement site restoration and management practices that provide for native perennial vegetation and foraging habitat beneficial to gamebirds, songbirds, and pollinators; ~~and that enhances~~ improving soil water retention and reducing storm water runoff and erosion. The Permittee shall develop a vegetation management plan ~~that incorporates, to the extent applicable and appropriate, the technical guidance and best management practices outlined in the DNR's Prairie Establishment and Maintenance Technical Guidance for Solar Projects¹. The vegetation management plan shall be filed at least 30 days prior to the preconstruction meeting.~~ using best management practices established by the Minnesota DNR and the Minnesota Board of Soil and Water Resources. The vegetation management plan shall be prepared in coordination with EERA, DNR, MDA, and BWSR.

The vegetation management plan and documentation of the coordination efforts between the permittee and the coordinating agencies shall be filed at least 14 days prior to the preconstruction meeting. To ensure continued management and recognition of beneficial habitat, the Permittee is encouraged to ~~seek certification of the project by following guidance set forth by the Pollinator Plan provided by the Board of Water and Soil Resources.~~ meet the standards for Minnesota's Habitat Friendly Solar Program by submitting project plans, seed mixes, a completed project planning assessment form, and any other applicable documentation used to meet the standard to the Minnesota Board of Water and Soil Resources. All documents required by BWSR for meeting standards of the Minnesota's Habitat Friendly Solar Program should also be filed with the Commission.

4.3.8.1 Site Planning and Management

The Vegetation Management Plan must include the following:

- Management objectives addressing short term (year 0-3, seeding and establishment) and long term (year 4 through the life of the permit) objectives.
- A description of planned restoration and vegetation activities, including how the site will be prepared, timing of activities, and how seeding will occur (broadcast, drilling, etc.), and the types of seed mixes to be used.
- A description of how the site will be monitored and evaluated to meet management objectives.
- A description of management tools used to maintain vegetation (e.g. mowing, spot spraying, hand removal, fire, grazing, etc.), including timing/frequency of maintenance activity.
- Identify responsible party for site restoration, monitoring, and long-term vegetation management of the site (e.g. consultant, contractor, site manager, etc.).

4.3.9 Application of Pesticides

The Permittee shall restrict pesticide use to those pesticides and methods of application approved by the Minnesota Department of Agriculture, Minnesota Department of Natural Resources, and the U.S. Environmental Protection Agency. Selective foliage or basal application shall be used when practicable. All pesticides shall be applied in a safe and cautious manner so as not to damage adjacent properties including crops, orchards, tree farms, apiaries, or gardens. The Permittee shall contact the landowner or designee to obtain approval for the use of pesticide at least 14 days prior to any application on their property. The landowner may request that there be no application of pesticides on any part of the site within the landowner's property. The Permittee shall provide notice of pesticide application to affected landowners, and known beekeepers operating apiaries within three miles of the project site at least 14 days prior to such application.

4.3.10 Invasive Species

The Permittee shall employ best management practices to avoid the potential introduction and spread of invasive species on lands disturbed by project construction activities. The Permittee shall develop an Invasive Species Prevention Plan to prevent the introduction and spread of invasive species on lands disturbed by project construction activities and file with the Commission 30 days prior to the pre-construction meeting.

4.3.11 Noxious Weeds

The Permittee shall take all reasonable precautions against the spread of noxious weeds during all phases of construction. When utilizing seed to establish temporary and permanent vegetative cover on exposed soil the Permittee shall select site appropriate seed certified to be free of noxious weeds. To the extent possible, the Permittee shall use native seed mixes. The Permittee shall consult with landowners on the selection and use of seed for replanting.

4.3.12 Roads

The Permittee shall advise the appropriate governing bodies having jurisdiction over all state, county, city or township roads that will be used during the construction phase of the project. Where practical, existing roadways shall be used for all activities associated with construction of the facility. Oversize or overweight loads associated with the facility shall not be hauled across public roads without required permits and approvals.

The Permittee shall locate all perimeter fencing and vegetative screening in a manner that does not interfere with routine road maintenance activities and allows for continued safe travel on public roads.

The Permittee shall construct the least number of site access roads it can. Access roads shall not be constructed across streams and drainage ways without the required permits and approvals. Access roads shall be constructed in accordance with all necessary township, county or state road requirements and permits.

The Permittee shall promptly repair private roads or lanes damaged when moving equipment or when accessing construction workspace, unless otherwise negotiated with the affected landowner.

4.3.13 Archaeological and Historic Resources

The Permittee shall make every effort to avoid impacts to identified archaeological and historic resources when constructing the facility. In the event that a resource is encountered, the Permittee shall consult with the State Historic Preservation Office (SHPO) and the State Archaeologist. Where feasible, avoidance of the resource is required. Where not feasible, mitigation must include an effort to minimize project impacts on the resource consistent with the SHPO and State Archaeologist requirements.

Prior to construction, workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction. If human remains are encountered during construction, the Permittee shall immediately halt construction and promptly notify local law enforcement and the State Archaeologist. Construction at such location shall not proceed until authorized by local law enforcement or the State Archaeologist.

4.3.14 Interference

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the project, the Permittee shall take whatever action is feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the project.

4.3.15 Restoration

The Permittee shall restore the areas affected by construction of the solar facility to the condition that existed immediately before construction began to the extent possible. The time period to complete restoration may be no longer than 12 months after the completion of construction, unless otherwise negotiated with the affected landowner. Restoration shall be compatible with the safe operation, maintenance and inspection of the project. Within 60 days after completion of all restoration activities, the Permittee shall advise the Commission in writing of the completion of such activities.

4.3.16 Cleanup

All waste and scrap that is the product of construction shall be removed from the site and all premises on which construction activities were conducted and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.3.17 Pollution and Hazardous Wastes

All appropriate precautions to protect against pollution of the environment shall be taken by the Permittee. The Permittee shall be responsible for compliance with all laws applicable to the

generation, storage, transportation, clean up and disposal of all wastes generated during construction and operation of the facility.

4.3.18 Damages

The Permittee shall fairly restore or compensate landowners for damage to crops, fences, private roads and lanes, landscaping, drain tile, or other damages sustained during construction.

4.3.19 Public Safety

The Permittee shall provide educational materials to landowners adjacent to the site and, upon request, to interested persons about the project and any restrictions or dangers associated with the project. The Permittee shall also provide any necessary safety measures such as warning signs and gates for traffic control or to restrict public access. The Permittee shall submit the location of all underground facilities, as defined in Minn. Stat. § 216D.01, subd. 11, to Gopher State One Call following the completion of construction at the site.

4.3.20 Site Identification

The solar site shall be marked with a visible identification number and or street address.

4.4 Feeder Lines

Feeder lines that carry power from an internal project interconnection point to the project substation or interconnection point on the electrical grid may be overhead or underground. Overhead and underground feeder lines that parallel public roads shall be placed within the public right-of-way or on private land immediately adjacent to the road. The Permittee shall obtain approval from the private landowner or government unit responsible for the affected right-of-way.

Feeder line locations shall be located in such a manner as to minimize interference with agricultural operations including, but not limited, to existing drainage patterns, drain tile, future tiling plans, and ditches. Safety shields shall be placed on all guy wires associated with overhead feeder lines. The Permittee shall submit the engineering drawings of all collector and feeder lines with the site plan pursuant to Section 8.3.

4.5 Other Requirements

4.5.1 Safety Codes and Design Requirements

The solar energy generating system and associated facilities shall be designed to meet or exceed all relevant local and state codes, Institute of Electrical and Electronics Engineers, Inc. (IEEE) standards, the National Electric Safety Code (NESC), and North American Electric Reliability Corporation (NERC) requirements. The Permittee shall report to the Commission on compliance with these standards upon request.

4.5.2 Other Permits and Regulations

The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the project and comply with the conditions of those permits unless those permits conflict with or are preempted by federal or state permits and regulations. A list of the permits known to be required is included in the permit application. The Permittee shall submit a copy of such permits to the Commission upon request.

5 SPECIAL CONDITIONS

Special conditions shall take precedence over other conditions of this permit should there be a conflict.

- Agriculture Mitigation Plan
- Vegetation Management Plan

5.1 Agriculture Impact Mitigation Plan

The Permittee shall, with the cooperation of the Minnesota Department of Agriculture, develop a site-specific Agricultural Impact Mitigation Plan (AIMP). The purpose of the AIMP shall be to identify measures to minimize potential impacts to agricultural uses of the land upon the decommissioning of the Project. The AIMP shall be filed in this docket at least 14 days prior to the pre-construction meeting. The AIMP shall include:

- (a) Measures that will be taken to segregate topsoil from subsoil during grading activities and the removal of topsoil during construction of the Project to the extent that such actions do not violate sound engineering principles or system reliability criteria.
- (b) Measures that will be taken to minimize impacts to and repair drainage tiles damaged during construction of the Project.

(c) Measures that will be taken to prevent introduction of non-native and invasive species.

(d) Measures that will be taken to re-vegetate disturbed areas with appropriate low-growing vegetation to the extent that such actions do not violate sound engineering principles or system reliability criteria.

(e) Measures that will be taken to maintain established vegetation at the facilities throughout the operational life of the facility.

5.2 Vegetation Management Plan

The Permittee shall develop a vegetation management plan in consultation with the MN DNR, Board of Water and Soil Resources, Minnesota Department of Agriculture to the benefit of pollinators and other wildlife, and to enhance soil water retention and reduce storm water runoff and erosion. The vegetation management plan shall be filed at least 14 days prior to the pre-construction meeting. Within 14 days of approval of the final Vegetation Management Plan, the Permittee shall provide all affected landowners with copies of the plan.

6 DELAY IN CONSTRUCTION

If the Permittee has not commenced construction or improvement of the site within four years after the date of issuance of this permit the Permittee shall file a report on the failure to construct and the Commission shall consider suspension of the permit in accordance with Minn. R. 7850.4700.

7 COMPLAINT PROCEDURES

Prior to the start of construction, the Permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements of Minn. R. 7829.1500 or Minn. R. 7829.1700, and as set forth in the complaint procedures attached to this permit.

Upon request, the Permittee shall assist the Commission with the disposition of unresolved or longstanding complaints. This assistance shall include, but is not limited to, the submittal of complaint correspondence and complaint resolution efforts.

8 COMPLIANCE REQUIREMENTS

Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit. Compliance filings must be electronically filed with the Commission.

8.1 Pre-Construction Meeting

Prior to the start of any construction, the Permittee shall participate in a pre-construction meeting with the Department of Commerce and Commission staff to review pre-construction filing requirements, scheduling, and to coordinate monitoring of construction and site restoration activities. Within 14 days following the pre-construction meeting, the Permittee shall file with the Commission, a summary of the topics reviewed and discussed and a list of attendees. The Permittee shall indicate in the filing the construction start date.

8.2 Pre-Operation Meeting

At least 14 days prior to commercial operation of the facility, the Permittee shall participate in a pre-operation meeting with the Department of Commerce and Commission staff to coordinate field monitoring of operation activities for the project. Within 14 days following the pre-operation meeting, the Permittee shall file with the Commission, a summary of the topics reviewed and discussed and a list of attendees.

8.3 Site Plan

At least 30 days prior to the pre-construction meeting, the Permittee shall provide the Commission, the Department, and the [Rock County Land Management Department](#) with a site plan that includes specifications and drawings for site preparation and grading; specifications and locations of photovoltaic panels and other structures to be constructed including all electrical equipment, pollution control equipment, fencing, roads, and other associated facilities; and procedures for cleanup and restoration. The documentation shall include maps depicting the site boundary and layout in relation to that approved by this permit.

The Permittee may not commence construction until the 30 days has expired or until the Commission has advised the Permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the Permittee intends to make any significant changes to its site plan or the specifications and drawings after submission to the Commission, the Permittee shall notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

8.4 Status Reports

The Permittee shall report to the Commission on progress during site construction. The Permittee need not report more frequently than monthly. Reports shall begin with the submittal of the site plan for the project and continue until completion of restoration. Reports shall describe construction activities and progress, and activities undertaken in compliance with this permit. Reports shall include text and photographs.

8.5 Labor Statistic Reporting

The Permittee shall file quarterly reports with the Commission within 45 days of the end of the quarter regarding construction workers that participated in the construction of the project. The reports shall (a) detail the Permittee's efforts and the site contractor's efforts to hire Minnesota workers, and (b) provide an account of: (i) the gross number of hours worked by or full-time equivalent workers who are Minnesota residents, as defined in Minn. Stat. § 290.01, subd. 7; (ii) the gross number of hours worked by or full-time equivalent workers who are residents of other states, but maintain a permanent residence within 150 miles of the project; and (iii) the total gross hours worked or total full-time equivalent workers. Permittee shall work with its contractor to determine the suitable reporting metric. The report may not include personally identifiable data.

8.6 In-Service Date

At least three days before the facility is to be placed into service, the Permittee shall notify the Commission of the date on which the facility will be placed into service and the date on which construction was completed.

8.7 As-Builts

Within 90 days after completion of construction, the Permittee shall submit copies of all final as-built plans and specifications developed during the project.

8.8 GPS Data

Within 90 days after completion of construction, the Permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (e.g., ArcGIS compatible

map files, GPS coordinates, associated database of characteristics) for all structures associated with the solar energy generating system.

8.9 Project Energy Production

The Permittee shall, by February 1st following each complete or partial year of project operation, file a report with the Commission on the monthly energy production of the facility including:

- (a) the installed nameplate capacity of the permitted facility;
- (b) the total daily energy generated by the facility in MW hours;
- (c) the total monthly energy generated by the facility in MW hours;
- (d) the monthly capacity factor of the facility;
- (e) yearly energy production and capacity factor for the facility;
- (f) the average monthly and average annual solar strength gradient measured in kWh/m²/Day observed at the facility;
- (g) the operational status of the facility and any major outages, major repairs, or performance improvements occurring in the previous year; and
- (h) any other information reasonably requested by the Commission.

This information shall be considered public and must be filed electronically.

8.10 Emergency Response

The Permittee shall prepare an Emergency Response Plan in consultation with the emergency responders having jurisdiction over the facility prior to project construction. The Permittee shall submit a copy of the plan, along with any comments from emergency responders, to the Commission at least 14 days prior to the pre-construction meeting and a revised plan, if any, at least 14 days prior to the pre-operation meeting. The Permittee shall provide as a compliance filing confirmation that the Emergency Response Plan was provided to the emergency responders and Public Safety Answering Points (PSAP) with jurisdiction over the facility prior to

commencement of construction. The Permittee shall obtain and register the facility address or other location indicators acceptable to the emergency responders and PSAP having jurisdiction over the facility.

8.11 Extraordinary Events

Within 24 hours of discovery of an occurrence, the Permittee shall notify the Commission of any extraordinary event. Extraordinary events include but shall not be limited to: fires, solar panel collapse, acts of sabotage, collector or feeder line failure, and injured worker or private person. The Permittee shall, within 30 days of the occurrence, file a report with the Commission describing the cause of the occurrence and the steps taken to avoid future occurrences.

8.12 Wildlife Injuries and Fatalities

The Permittee shall report any wildlife injuries and fatalities to the Commission quarterly.

9 DECOMMISSIONING AND RESTORATION

9.1 Decommissioning Plan

The Permittee shall submit a decommissioning plan to the Commission at least fourteen 14 days prior to the pre-operation meeting and provide updates to the plan every five years thereafter. The plan shall provide information identifying all surety and financial securities established for decommissioning and site restoration. The decommissioning plan shall provide an itemized breakdown of costs of decommissioning all project components, which shall include labor and equipment. The plan shall identify cost estimates for the removal of solar panels, racks, underground collection cables, access roads, transformers, substations, and other project components. The plan may also include anticipated costs for the replacement of panels or repowering the project by upgrading equipment.

The Permittee shall also submit the decommissioning plan to the local unit of government having direct zoning authority over the area in which the project is located. The Permittee shall ensure that it carries out its obligations to provide for the resources necessary to fulfill its requirements to properly decommission the project at the appropriate time. The Commission may at any time request the Permittee to file a report with the Commission describing how the Permittee is fulfilling this obligation.

9.2 Site Restoration

Upon expiration of this permit or upon termination of operation of the project, the Permittee shall have the obligation to dismantle and remove from the site all solar panels, mounting steel posts and beams, inverters, transformers, overhead and underground cables and lines, foundations, buildings, and ancillary equipment. To the extent feasible, the Permittee shall restore and reclaim the site to pre-project conditions. Landowners may require the site be returned to agricultural production or may retain restored prairie vegetation, or other land uses as agreed to between the landowner and the Permittee. All access roads shall be removed unless written approval is given by the affected landowner requesting that one or more roads, or portions thereof, be retained. All such agreements between the Permittee and the affected landowner shall be submitted to the Commission prior to completion of restoration activities. The site shall be restored in accordance with the requirements of this condition within 18 months of termination.

9.3 Abandoned Solar Installations

The Permittee shall advise the Commission of any solar facilities that are abandoned prior to termination of operation of the project. The project, or any equipment within the project, shall be considered abandoned after one year without energy production and the land restored pursuant to Section 9.2 unless a plan is submitted to and approved by the Commission outlining the steps and schedule for returning the project, or any equipment within the project, to service.

10 COMMISSION AUTHORITY AFTER PERMIT ISSUANCE

10.1 Final Boundaries

After completion of construction the Commission shall determine the need to adjust the final site boundaries required for the project. This permit may be modified, after notice and opportunity for hearing, to represent the actual site boundary required by the Permittee to operate the project authorized by this permit.

10.2 Expansion of Site Boundaries

No expansion of the site boundary described in this permit shall be authorized without the approval of the Commission. The Permittee may submit to the Commission a request for a change in the boundary of the site for the project. The Commission will respond to the requested change in accordance with applicable statutes and rules.

10.3 Periodic Review

The Commission shall initiate a review of this permit and the applicable conditions at least once every five years. The purpose of the periodic review is to allow the Commission, the Permittee, and other interested persons an opportunity to consider modifications in the conditions of this permit. No modification may be made except in accordance with applicable statutes and rules.

10.4 Modification of Conditions

After notice and opportunity for hearing this permit may be modified or amended for cause, including but not limited to the following:

- (a) violation of any condition in this permit;
- (b) endangerment of human health or the environment by operation of the project; or
- (c) existence of other grounds established by rule.

10.5 More Stringent Rules

The issuance of this permit does not prevent the future adoption by the Commission of rules or orders more stringent than those now in existence and does not prevent the enforcement of these more stringent rules and orders against the Permittee.

10.6 Right of Entry

The Permittee shall allow Commission designated representatives to perform the following, upon reasonable notice, upon presentation of credentials and at all times in compliance with the Permittee's site safety standards:

- (a) To enter upon the facilities easement of the property for the purpose of obtaining information, examining records, and conducting surveys or investigations.
- (b) To bring such equipment upon the facilities easement of the property as is necessary to conduct such surveys and investigations.
- (c) To sample and monitor upon the facilities easement of the property.

- (d) To examine and copy any documents pertaining to compliance with the conditions of this Permit.

11 PERMIT AMENDMENT

This permit may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the Permittee. The Commission may amend the conditions after affording the Permittee and interested persons such process as is required.

12 TRANSFER OF PERMIT

The Permittee may request at any time that the Commission transfer this permit to another person or entity. The Permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new Permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittee, the new Permittee, and interested persons such process as is required.

13 REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minn. R. 7850.5100, to revoke or suspend the permit.

14 EXPIRATION DATE

This permit shall expire 30 years after the date this permit was approved and adopted.

ATTACHMENT 1

Complaint Handling Procedures for Permitted Energy Facilities

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

To establish a uniform and timely method of reporting and resolving complaints received by the permittee concerning permit conditions for site or route preparation, construction, cleanup, restoration, operation, and maintenance.

B. Scope

This document describes complaint reporting procedures and frequency.

C. Applicability

The procedures shall be used for all complaints received by the permittee and all complaints received by the Minnesota Public Utilities Commission (Commission) under Minn. R. 7829.1500 or Minn. R. 7829.1700 relevant to this permit.

D. Definitions

Complaint: A verbal or written statement presented to the permittee by a person expressing dissatisfaction or concern regarding site or route preparation, cleanup or restoration, or other permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written complaint alleging a violation of a specific permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A complaint which, despite the good faith efforts of the permittee and a person, remains unresolved or unsatisfactorily resolved to one or both of the parties.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private; however organized.

E. Complaint Documentation and Processing

1. The permittee shall designate a representative responsible for filing complaints to the Commission's eDocket system. This person's name, phone number and email address shall accompany all complaint submittals. The name and contact information for the representative shall be kept current in eDockets.
2. A person presenting the complaint should, to the extent possible, include the following information in their communications:
 - a. name, address, phone number, and email address;
 - b. initial date of the complaint;
 - c. tract, parcel number, or address of the complaint;
 - d. a summary of the complaint; and
 - e. whether the complaint relates to a permit violation, a construction practice issue, or other type of complaint.
3. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
 - a. docket number and project name;
 - b. name of complainant, address, phone number and email address;
 - c. precise description of property or parcel number;
 - d. name of permittee representative receiving complaint and date of receipt;
 - e. nature of complaint and the applicable permit condition(s);
 - f. summary of activities undertaken to resolve the complaint; and
 - g. a statement on the final disposition of the complaint.

F. Reporting Requirements

The permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit, unless otherwise required below. The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to the Commission's Public Advisor at 1-800-657-3782 (voice messages are acceptable) or publicadvisor.puc@state.mn.us. For e-mail reporting, the email

subject line should read “PUC EFP Complaint” and include the appropriate project docket number.

Monthly Reports: During project construction, restoration, and operation, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed by the 15th of each month to Will Seuffert, Executive Secretary, Public Utilities Commission, using the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>. If no complaints were received during the preceding month, the permittee shall file a summary indicating that no complaints were received.

If a project has submitted twelve consecutive months of complaint reports with no complaints, monthly reports can terminate by a letter to eDockets notifying the Commission of such action. If a substantial complaint is received (by the company or the Commission) following termination of the monthly complaint report, as noted above, the monthly reporting should commence for a period of one year following the most recent complaint or upon resolution of all pending complaints.

If a permittee is found to be in violation of this section, the Commission may reinstate monthly complaint reporting for the remaining permit term or enact some other commensurate requirement via notification by the Executive Secretary or some other action as decided by the Commission.

G. Complaints Received by the Commission

Complaints received directly by the Commission from aggrieved persons regarding the permit or issues related to site or route preparation, construction, cleanup, restoration, or operation and maintenance will be promptly sent to the permittee.

The permittee shall notify the Commission when the issue has been resolved. The permittee will add the complaint to the monthly reports of all complaints. If the permittee is unable to find resolution, the Commission will use the process outlined in the Unresolved Complaints Section to process the issue.

H. Commission Process for Unresolved Complaints

Complaints raising substantial and unresolved permit issues will be investigated by the Commission. Staff will notify the permittee and appropriate persons if it determines that the

complaint is a substantial complaint. With respect to such complaints, the permittee and complainant shall be required to submit a written summary of the complaint and its current position on the issues to the Commission. Staff will set a deadline for comments. As necessary, the complaint will be presented to the Commission for consideration.

I. Permittee Contacts for Complaints and Complaint Reporting

Complaints may be filed by mail or email to the permittee's designated complaint representative, or to the Commission's Public Advisor at 1-800-657-3782 or publicadvisor.puc@state.mn.us. The name and contact information for the permittee's designated complaint representative shall be kept current in the Commission's eDocket system.

ATTACHMENT 2

Compliance Filing Procedures for Permitted Energy Facilities

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

To establish a uniform and timely method of submitting information required by Commission energy facility permits.

B. Scope and Applicability

This procedure encompasses all known compliance filings required by permit.

C. Definitions

Compliance Filing: A filing of information to the Commission, where the information is required by a Commission site or route permit.

D. Responsibilities

1. The permittee shall file all compliance filings with Will Seuffert, Executive Secretary, Public Utilities Commission, through the eDockets system. The eDockets system is located at:
<https://www.edockets.state.mn.us/EFiling/home.jsp>

General instructions are provided on the eDockets website. Permittees must register on the website to file documents.

2. All filings must have a cover sheet that includes:
 - a. Date
 - b. Name of submitter/permittee
 - c. Type of permit (site or route)
 - d. Project location
 - e. Project docket number
 - f. Permit section under which the filing is made
 - g. Short description of the filing

3. Filings that are graphic intensive (e.g., maps, engineered drawings) must, in addition to being electronically filed, be submitted as paper copies and on CD. Paper copies and CDs should be sent to: 1) Will Seuffert, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147, and 2) Department of Commerce, Energy Environmental Review and Analysis, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

The Commission may request a paper copy of any electronically filed document.

PERMIT COMPLIANCE FILINGS¹

PERMITTEE: Elk Creek Solar, LLC
PERMIT TYPE: Large Energy Facility Site Permit
PROJECT LOCATION: Vienna Township, Rock County
PUC DOCKET NUMBER: IP-7009/GS-19-495

Filing Number	Permit Section	Description of Compliance Filing	Due Date
	4.2.1	Field Representative	14 days prior to commencing construction
	4.2.2	Site Manager	14 days prior to commercial operation
	4.2.10	Prairie Protection and Management Plan	30 days prior to submitting site plan, if required
	4.2.16	Historic and Cultural Resource Survey	14 days prior to pre-construction meeting, if required
	4.2.18	Site Restoration Report	60 days after completion of all restoration activities
	4.3	Feeder and Collector Line Engineered Drawings	14 days prior to pre-construction meeting
	5.0	Special Conditions Report	14 days prior to pre-construction meeting
	5.1	Agricultural Impact Mitigation Plan	14 days prior to pre-construction meeting
	5.2	Vegetation Management Plan	14 days prior to pre-construction meeting

¹ This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. It is not a substitute for the permit; the language of the permit controls.

Filing Number	Permit Section	Description of Compliance Filing	Due Date
	6.0	Failure to Construct	Four years after permit issuance, as necessary
	7.0	Complaint Procedures	Prior to the start of construction
	8.1	Pre-Construction Meeting Summary and Construction Start Date	14 days after pre-construction meeting
	8.2	Pre-Operation Meeting Summary	14 days after pre-operation meeting
	8.3	Site Plan	14 days prior to pre-construction meeting
	8.3	Changes to Site Plan after Authorization	Five days prior to implementing changes
	8.4	Status Reports	Monthly
	8.5	Notice of Operation and Completion of Construction	Three days prior to commercial operation
	8.6	As-Builts	60 days after construction is complete
	8.7	GPS Data	60 days after construction is complete
	8.8	Energy Production	Yearly on February 1 st
	8.9	Emergency Response Plan	14 days prior to pre-construction meeting

Filing Number	Permit Section	Description of Compliance Filing	Due Date
	8.10	Extraordinary Events	Notification within 24 hours of discovery and report 30 days after occurrence
	8.11	Wildlife Injuries and Fatalities	Quarterly
	9.1	Decommissioning Plan	14 day prior to pre-operation meeting
	Complaint Reporting	Monthly Complaint Reports	Monthly during project construction and restoration
	Complaint Reporting	Immediate Complaint Reports	By the following day throughout the life of the permit

Solar Project Footprint

