

February 21, 2025

## VIA E-FILING

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101

**Re: In the Matter of the Application of Castle Rock Solar LLC for a Site Permit for the up to 150 MW Castle Rock Solar Project in Dakota County, Minnesota  
Docket No. IP-7137/GS-24-267**

Dear Mr. Seuffert:

Castle Rock Solar LLC (Castle Rock) respectfully submits these reply comments regarding the completeness of its Application for a Site Permit (Application) for an up to 150 megawatt alternating current photovoltaic solar energy generating system and associated facilities known as the Castle Rock Solar Project in Castle Rock Township, Dakota County, Minnesota (Project).

Initial comments were filed by the International Union of Operating Engineers Local 49 (IUOE Local 49) and the North Central States Regional Council of Carpenters (NCSRC of Carpenters) on February 14, 2025. Although the comments did not discuss Application completeness, Castle Rock appreciates the comments of IUOE Local 49 and NCSRC of Carpenters and looks forward to further discussions related to the Project and the use of local workers.

Initial comments were also filed by the Minnesota Department of Commerce, Energy Environmental Review and Analysis (DOC-EERA) on February 14, 2025. Castle Rock appreciates DOC-EERA staff's thorough review of the Application and comments on this process going forward. Castle Rock provides these reply comments to address the items discussed in the comments of DOC-EERA, as well as to discuss the process for further review of the Application.

### **Application Completeness.**

The Minnesota Public Utilities Commission (Commission) requested comments concerning whether the Application contains the information required under the applicable rule. DOC-EERA recommended the Commission accept the Application as substantially complete. Castle Rock appreciates DOC-EERA's support of a finding of completeness for the Application.

### **Advisory Task Force.**

Castle Rock agrees with DOC-EERA staff that an advisory task force is not warranted. Therefore, the Commission should decline to appoint an advisory task force.

### **Application Review Process.**

Castle Rock agrees with DOC-EERA staff's recommendation that the matter should be referred to the Office of Administrative Hearings (OAH) for a public hearing and preparation of a full administrative law judge report with recommendations.

### **Request for Information.**

In addition to recommending that the Commission accept the Application as substantially complete, EERA recommended that Castle Rock provide additional information for the following topics:

- Additional information regarding the orientation of the private airstrip that is near the Project relative to the Project.
- A discussion of greenhouse gas (GHG) emissions associated with the construction, operation, and decommissioning of the Project, including evaluation and characterization of the potential impacts of these emissions.
- The full Natural Heritage Information System (NHIS) report including cover page(s) from the Minnesota Department of Natural Resources for the Project.

Castle Rock is committed to working with DOC-EERA staff throughout the site permit process to develop appropriate impact mitigations measures. With respect to the private airstrip near the Project, DOC-EERA requested information regarding the orientation of the airstrip relative to the Project and whether takeoffs and landings would require crossing over the Project. The private airstrip is owned by a participating landowner. Castle Rock confirmed that the private airstrip has not been used in 11 years and the landowner has no intention of restoring the airstrip. Thus, no takeoffs or landings would cross over the Project.

Castle Rock provides the following documentation in response to DOC-EERA's requests related to GHG emissions and the NHIS data.

**Attachment A** includes a discussion of GHG emissions associated with the construction, operation, and decommissioning of the Project.

**Attachment B** includes NHIS data from the Minnesota Department of Natural Resources for the Project.

Also in accordance with Minnesota Rules, part 7829.0500, and Minnesota Statutes Chapter 13, Castle Rock Solar has designated portions of Attachment B as NONPUBLIC DATA–NOT FOR PUBLIC DISCLOSURE because they contain sensitive cultural resource information and/or endangered species information. Given the need to include nonpublic information, Castle Rock Solar has prepared and is electronically filing both NONPUBLIC and public versions of Attachment B.

**Conclusion.**

Castle Rock respectfully requests that the Commission:

1. Accept the Application as substantially complete and authorize review of the Application under the alternative permitting process under Minn. Stat. § 216E.04 and Minn. R. 7850.2800 to 7850.3900;
2. Find that an advisory task force is not warranted; and
3. Refer the matter to the OAH for a public hearing and preparation of a full administrative law judge report with recommendations; and

Given there has been no comment indicating Application is incomplete, this matter appears ready for consideration by the Commission and could be considered by consent calendar.

These reply comments have been e-filed through [www.edocket.state.mn.us](http://www.edocket.state.mn.us). A copy of this filing is also being served upon the persons on the Official Service List of record.

Please let me know if you have any questions regarding this filing.

Sincerely,

FREDRIKSON & BYRON, P.A.

*/s/ Jeremy P. Duehr*

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JPD

## Greenhouse Gas (GHG) Emissions/Carbon Footprint

The GHG emissions for the Project are calculated using the Simplified Greenhouse Gas Emissions Calculator (SGEC) tool and are based on the methodologies for developing a carbon footprint described in Minnesota Environmental Quality Board's (EQB's) EAW Guidance (July 2023). Table 1 shows the emission categories for project carbon footprint calculations, as provided in the EQB Guidance.

**Table 1. Emission Categories for Carbon Footprint**

Category	Scope	Project Phase	Type of Emissions
Direct Emissions	Scope 1	Construction	Combustion (Mobile Sources) Combustion (Stationary Sources)
	Scope 1	Operations	
	Scope 1	Decommissioning	
Indirect Emissions	Scope 2	Offsets from renewable electricity	Electricity Production Emissions

A description of the carbon footprint associated with the Project is provided below. Detailed assumptions supporting these calculations is included in Appendix M.

### Construction

GHG emissions from construction activities are associated with fuel combustion in the mobile off-road construction equipment and on-road vehicles. Construction is scheduled to be completed within approximately fourteen (14) months. Approximately 100 vehicles per day are assumed for construction workers, traveling 30 miles per day per vehicle. The workers are assumed to be onsite for 200 days. An estimate of 10 heavy duty diesel-fired semi-trucks are assumed to operate daily, traveling an average of 5 miles per day. The semi-trucks will be onsite for 90 days.

For on-road vehicles (commuting construction workers and semi-trucks), emissions are calculated by estimating the number of vehicles, miles traveled, gallons of fuel used (using default mileage rates), and emission factors from the U.S. EPA's Emission Factors Hub (<https://www.epa.gov/climateleadership/ghg-emission-factors-hub>, updated February 2024).

### Operations & Maintenance

It is estimated that this project will generate approximately 300,000 MWh of electricity per year, which will offset approximately 134,000 metric tons (148,000 short tons) of CO<sub>2</sub>e annually. Over the estimated 30 year lifespan of the Project, this will outweigh the GHG emissions from construction, maintenance, and decommissioning combined. The Project avoids more GHG emissions than it produces by a wide margin.

It is anticipated that approximately 2 onsite trucks and 3 workers' commute vehicles will be used daily, performing various maintenance and inspection activities. It is assumed workers will travel approximately 30 miles per day per vehicle and the trucks will travel approximately 5 miles per day. Operations are assumed to occur 50 weeks per year and 5 days per week over the entire 30-year life of the project.

GHG emissions from the mobile sources during operations are calculated using the SGEC Tool with emission factors from the Emission Factors Hub.

Sulfur hexafluoride (SF<sub>6</sub>) is used in the switchgear for insulation and breaking in circuit breakers and load break switches. SF<sub>6</sub> has a global warming potential (GWP) of 22,800. It is a potential source of GHG emissions through leakage and/or improper gas handling practices during equipment installation,

maintenance, and decommissioning. Emissions of SF<sub>6</sub> were not specifically included in the analysis, since potential losses are unknown. As noted in Table 8, thermographic scans and inspection of the equipment at the substation will be used to monitor and prevent potential SF<sub>6</sub> emissions.

#### Decommissioning

GHG emissions were calculated for decommissioning at the end of the project (assumed to be after 30 years of operation). It is assumed that the number of employees and equipment will be the same as was needed for construction. Decommissioning is assumed to be completed within one year.

A summary of GHG emissions, including offset emissions from the solar energy, are provided in Table 2. Emissions are presented in tons per year of carbon dioxide equivalent, which takes into account each GHG's GWP. Detailed emission calculations are provided in Appendix M, Greenhouse Gas Analysis Calculations.

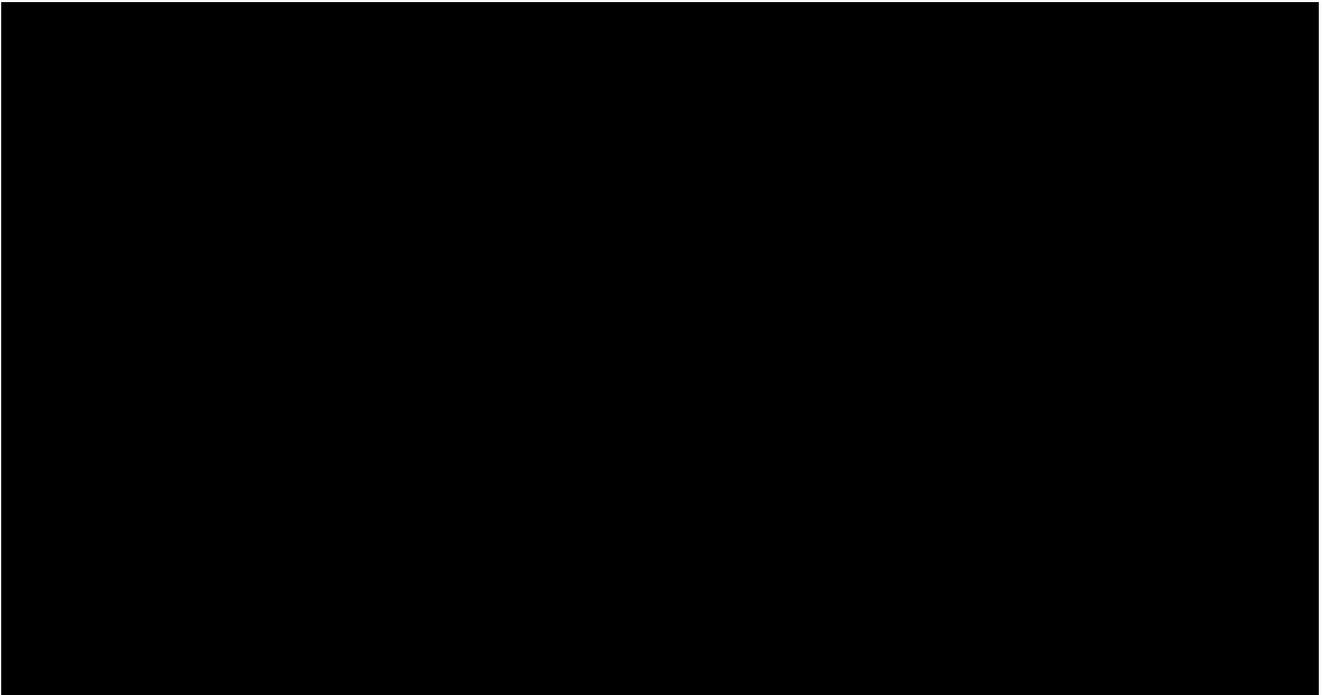
**Table 2. GHG Emissions Summary (CO<sub>2</sub>e in short tons per year)**

Scope	Source	GHG Annual Emissions (ton/yr of CO <sub>2</sub> e)	Total Project Emissions (tons CO <sub>2</sub> e)
<b>Direct Emissions</b>			
Scope 1	Construction – Solar Project	604	705
Scope 1	Operations	9.6	288
Scope 1	Decommissioning	471	471
<b>Total</b>		-	<b>1,464</b>
<b>Indirect Emissions</b>			
Scope 2	Operations – Renewable Electricity Offset	-147,975	-4,439,259
<b>Net Emissions Change</b>		-	<b>-4,437,796</b>

Project construction emissions are insignificant compared to emissions within the state and region and will be mitigated through reducing idling time for construction equipment, where practicable. Operation of the Project is anticipated to have positive impacts on GHG emissions. Potential emissions of SF<sub>6</sub> will be avoided and mitigated through thermographic scans and inspections.

**Castle Rock NHIS data**

There are four records within 1-mile, nothing within the project boundary. The table is attached.



**In the Matter of the Application of Castle Rock  
Solar LLC for a Site Permit for the up to 150  
MW Castle Rock Solar Project in Dakota  
County, Minnesota**

**MPUC Docket No.: IP-7137/GS-24-267**

**CERTIFICATE OF SERVICE**

Breann L. Jurek certifies that on the 21<sup>st</sup> day of February, 2025, she e-filed a true and correct copy of the following documents on behalf of Castle Rock Solar LLC via eDockets (www.edockets.state.mn.us).

- Castle Rock Solar, LLC's Completeness Reply Comments;
- Public Attachments A and B; and
- Non-Public Attachment B.

Said documents were also served as designated on the Official Service List on file with the Minnesota Public Utilities Commission and as attached hereto.

Executed on: February 21, 2025

*Signed: /s/ Breann L. Jurek*

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Fredrikson & Byron, P.A.

60 South Sixth Street

Suite 1500

Minneapolis, MN 55402

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
1	Ron	Boyd	ron.boyd@solarstonepartners.com	SolarStone Development LLC		1681 Villa Ct. Marco Island FL, 34145 United States	Electronic Service		No	24-267GS-24-267
2	Generic	Commerce Attorneys	commerce.attorneys@ag.state.mn.us		Office of the Attorney General - Department of Commerce	445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States	Electronic Service		Yes	24-267GS-24-267
3	Jeremy	Duehr	jduehr@fredlaw.com	Fredrikson & Byron, P.A.		60 S Sixth St Ste 1500 Minneapolis MN, 55402-4400 United States	Electronic Service		No	24-267GS-24-267
4	Sharon	Ferguson	sharon.ferguson@state.mn.us		Department of Commerce	85 7th Place E Ste 280 Saint Paul MN, 55101-2198 United States	Electronic Service		No	24-267GS-24-267
5	Derek	Hasek	derek.hasek@solarstonepartners.com			3316 Highland Ave Wayzata MN, 55391 United States	Electronic Service		No	24-267GS-24-267
6	Breann	Jurek	bjurek@fredlaw.com	Fredrikson & Byron PA		60 S Sixth St Ste 1500 Minneapolis MN, 55402 United States	Electronic Service		No	24-267GS-24-267
7	Jennifer	Kamm	jennifer.kamm@stantec.com	Stantec		One Carlson Parkway, Suite 100 Plymouth MN, 55447 United States	Electronic Service		No	24-267GS-24-267
8	Molly	Leisen	mleisen@fredlaw.com	Fredrikson & Byron P.A.		60 South Sixth Street Suite 1500 Minneapolis MN, 55402 United States	Electronic Service		No	24-267GS-24-267
9	Ryan	MacWilliams	rmacwilliams@matrixrenewables.com	Matrix Renewables USA LLC		800 Brickell Ave, Suite 901 Miami FL, 33131 United States	Electronic Service		No	24-267GS-24-267
10	Shantal	Pai	spai@fredlaw.com	Fredrikson and Byron, P.A.		60 South Sixth Street Suite 1500 Minneapolis MN, 55402 United States	Electronic Service		No	24-267GS-24-267
11	Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States	Electronic Service		Yes	24-267GS-24-267
12	Will	Seuffert	will.seuffert@state.mn.us		Public Utilities Commission	121 7th PI E Ste 350 Saint Paul MN, 55101 United States	Electronic Service		Yes	24-267GS-24-267