STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of **GLACIER MEADOWS SOLAR, LLC** for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.	)	Case No. U-22044

QUALIFICATIONS AND DIRECT TESTIMONY OF

SARAH A. MULLKOFF

MICHIGAN PUBLIC SERVICE COMMISSION

July 20, 2026

QUALIFICATIONS OF SARAH A. MULLKOFF
CASE NUMBER U-22044
PART I

Q. Please state your name and business address for the record.

A. My name is Sarah A Mullkoff. My business address is 7109 West Saginaw Highway, Lansing Michigan 48917.

Q. By whom are you employed and in what capacity?

A. I am employed by the Michigan Public Service Commission (MPSC or Commission) as manager of the Renewable Energy and Storage Siting Section of the Energy Operations Division.

Q. What are your current responsibilities?

A. As manager of the Renewable Energy and Storage Siting Section, I oversee the responsibilities of the section including the work of staff and consultants retained by the Commission. The section is responsible for the implementation of Public Act 233 of 2023. As part of this responsibility, the section evaluates applications for certificates for renewable energy and storage siting, for which I also provide expert witness testimony on various topic areas. The section also provides support in developing educational materials for interested affected local units and members of the public that have requested information on the State's new siting process, coordinates pre-application meetings and provides responses to applicants' discovery requests, and supports coordination of consultants' review of application materials and development of witness testimony on other active PA 233 cases.

Q. Would you please outline your educational background?

A. I earned a Bachelor of Arts in International Relations with a Specialization in Science, Technology, Environment, and Public Policy from the James Madison College at Michigan State University (MSU) in 2009. I earned a Master's of Energy Regulation and Law degree from the Vermont Law School[1] in 2019. My graduate research was concentrated on electric reliability and resilience, and I co-authored a paper which was published in the Florida Law Journal on Puerto Rico's grid resilience challenges following Hurricane Maria.

Q. Have you completed any trainings during your time at the Commission?

A. Yes. I have attended training programs sponsored by the National Association of Regulatory Utility Commissioners (NARUC) and Michigan State University, including the Annual Regulatory Studies Program (August 2017 and 2019), Grid School (April 2018), and select sessions of the Institute of Public Utilities' Advanced Studies Program (October 2018). In 2019, I attended Active Communications International's 6th National Conference on Next Generation Demand Response in Boston, MA.

In addition, I have taken the following trainings related to renewable energy siting:

- Planning and Zoning Essentials; American Planning Association, Michigan Chapter, December 2024;
- Site Plan Review Training; American Planning Association, Michigan Chapter; December, 2024;
- Renewable Energy Zoning and Permitting Essential Principles; EUCI (Formerly Electric Utility Consultants, Inc); December 2024;
- Michigan Citizen Planner; Michigan State University Extension, February 2025;
- Michigan Pollinator Habitat Planning Scorecard for Solar Site Certification Program; Michigan State University Extension; March 2025

[1] On July 1,2022, the Vermont Law School officially changed its name to the *Vermont Law and Graduate School* as part of strategic restructuring.

QUALIFICATIONS OF SARAH A. MULLKOFF
CASE NUMBER U-22044
PART I

Q. What is your professional experience?

A. In 2008, I began working as a Student Assistant in the State Energy Office, within the Michigan Department of Labor and Economic Growth. I maintained energy data, created presentations and materials, maintained the website, and performed other tasks as assigned. Upon graduation, from 2009-2016 I held jobs with three separate Michigan-based environmental non-profit organizations, where my work included development and implementation of energy efficiency and renewable energy policies and programs, as well as coalition management.

In 2017, I returned to employment with the State of Michigan and accepted a position as a Departmental Analyst in the Michigan Energy Office at the Michigan Agency for Energy. My primary responsibility was grant management for the community energy management program, which assisted Michigan cities with tools and resources for reducing energy consumption. In addition, I served as project lead for developing a pilot program that combined weatherization with community solar to assist economically disadvantaged households in becoming energy self-sufficient.

In February of 2018, I accepted a position as a Departmental Analyst in the Generation and Certificate of Need section now known as the Resource Optimization and Certification Section of the MPSC. My responsibilities in this role entailed participating in a cross-functional group responsible for evaluating the regulated utilities' integrated resource plans (IRPs) along with evaluating demand response programs. I also served as a case coordinator for IRP cases, handled internal project management of discovery and audit logs, supported evaluation of planning criteria, and served as a MPSC Staff (Staff) witness in numerous cases.

In 2021, I accepted a role as a Commissioner Advisor. In this capacity, I reviewed complex case records and prepared the commissioners for deliberations on various policy positions and regulatory matters pertaining to electric, natural gas, and telecommunications policy. During this time, I also supported the Commission's activities around engagement and coordination in pursuit of federal grants through the Infrastructure Investment and Jobs Act and the Inflation Reduction Act and provided support to numerous Staff work groups and technical engagements through MI Power Grid and associated "Commission's own motion" cases.

In 2024, I became involved in the implementation of Public Act 233 of 2023 (PA 233) for renewable energy and storage siting application cases, co-leading the workgroup efforts and providing support in developing recommendations for application filing instructions and guidance under MPSC Case No. U-21547. In August 2024, I accepted my current role as the manager of the Renewable Energy and Storage Siting Section. In this capacity, I lead the Staff team in this Section, including Commission-retained third-party consultants, on review and analysis of PA 233 cases. The RESS Section received its first case in June of 2025; I have been involved in each PA 233 case since that time.

Q. Have you previously presented testimony before the Commission?

A. Yes, I have provided testimony in the following MPSC cases:

U-20165	Consumers Energy Company, IRP Case
U-20350	Upper Peninsula Power Company, IRP Case
U-20471	DTE Electric Company, IRP Case
U-20599	Northern States Power Company, IRP Case

U-20591	Indiana Michigan Power Company, IRP Case
U-20563	Consumers Energy 2018, Demand Response Reconciliation Case
U-20697	Consumers Energy 2020, Electric Rate Case
U-20766	Consumers Energy 2019, Demand Response Reconciliation Case
U-21932	Acceleration Solar, LLC, PA 233, Siting Certificate Case
U-21962	Washtenaw Solar, LLC, PA 233, Siting Certificate Case
U-21956	Otisville Solar PV I, LLC, PA 233, Siting Certification Case
U-22003	Rouget Road Solar Farm, LLC, PA 233, Siting Certification Case
U-22004	Headland Solar, LLC, PA 233 Siting Certification Case

In addition, I have assisted with the development of testimony for Demand Response (DR) cases, including Consumers Energy 2017 DR reconciliation, Case No. U-20164.

DIRECT TESTIMONY OF SARAH A. MULLKOFF
CASE NUMBER U-22044
PART II

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present Commission Staff's (Staff) position on certain issues and recommendations in the matter of the Glacier Meadows Solar, LLC's (Applicant or Company) request for a certificate under Public Act 233 of 2023 (PA 233), MCL 460.1221, *et seq.*, for the Glacier Meadows Solar Project, which will be referred to as "the project". The project is proposed for development by Orsted Onshore North America, LLC (Orsted). I refer to this request as "the Application", which includes all direct testimony and associated exhibits submitted to the docket by the Company in support of that request.

In this testimony I will: (1) Discuss the general approach taken by Staff in review of the Application; (2) Introduce Staff's witnesses and describe the general organization of Staff's testimony; (3) Describe the Application and Project Descriptions; (4) Present general discussion of the procedural filing requirements; (5) Present and discuss Staff's Fee Exhibit; (6) Discuss Staff's review of and positions on the Applicant's local government outreach, local engagement, agency consultations, and Tribal consultation; (7) Discuss Staff's review of the Complaint Resolution Process; and (8) Present select conditions Staff recommends the Commission impose if a certificate is issued.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring the following exhibits:

- Exhibit S-1: Fee Exhibit
- Exhibit S-2.1: Staff Proposed Conditions – redlined
- Exhibit S-2.2: Staff Proposed Conditions – clean
- Exhibit S-2.3: Staff's Ninth Discovery Request and Company's Response

Q. Were these exhibits prepared by you or under your supervision?

A. Yes.

Introduction of Staff Witnesses

Q. Please describe the topics covered by each of the Staff witnesses' direct testimony.

A. Including myself, there are nine Staff witnesses who present direct testimony in this case. Staff testimony addresses the following topics:

- Staff witness Gustavo Cordero, Public Utilities Engineer, discusses public health and safety;
- Staff witness Greg Frer, Consultant for Weston, LLC, discusses the Decommissioning Cost Estimate;
- Staff witness Dr. Austin Glass, Public Utilities Engineer, discusses land use, project impacts, and farmland preservation;
- Staff witness Jonathan Kroeker, Consultant for Weston, LLC, discusses the Decommissioning Plan, Agreement, and decommissioning compliance matters;
- Staff witness Katherine Krupp, Departmental Analyst, discusses environmental compliance and permits review;
- Staff witness Joseph Lobodzinski, Departmental Analyst, discusses public benefits;
- Staff witness Houtan Moaveni, Vice President of Grid Strategies, LLC, discusses the sound monitoring protocol; and,
- Staff witness Travis Warner, Public Utilities Engineer, discusses emergency and fire response plans.

Staff Approach to Application Review

Q. What approach did Staff use in conducting its review of the Application?

A. Staff conducted a detailed review of the Application and related documents pursuant to the specific requirements of PA 233. Staff issued discovery requests and follow-up requests for supplemental information related to the Application. Staff conferred with external state and county agencies through interagency coordination regarding aspects of the Application. And, throughout its work, Staff relied on Commission guidance, including the October 10, 2024, Order in MPSC Case No. U-21547, which adopted the Application Filing Instructions and Procedures (AFIP) for renewable energy and energy storage siting cases, including an application checklist.

Q. What are the criteria for a Renewable Energy or Storage Facility certificate to be granted by the MPSC?

A. The main criteria for approval are detailed in Sections 226(6) through 226(8) of PA 233 (MCL 460.1226(6)-(8)). The Commission must grant a certificate if the listed criteria are met. At a high level, these criteria include, but are not limited to:

(a.) The public benefits of the proposed facility justify its construction. MCL 460.1226(7)(a) includes a non-exhaustive list of items considered "public benefits."

(b.) The facility meets the standards in MCL 324.1705(2), and that the applicant has considered and addressed environmental and natural resources impacts, including those listed in MCL 460.1226(7)(c).

(c.) The applicant has entered into host community agreements or community benefits agreements consistent with the standards of MCL 460.1227.

(d.) The project meets the required labor standards, including compliance with prevailing wage requirements, use of apprenticeship programs, and use of a project labor agreement or collective bargaining agreement compliant with MCL 460.1221(u).

(e.) The project will not unreasonably diminish farmland.

(f.) The project does not present an unreasonable threat to public health or safety, accomplished by meeting the setbacks, noise restrictions, and other standards of MCL 4601.1226(8).

(g.) The Commission has considered feasible alternative developed locations, as applicable, and the impact of the facility on local land use.

<u>Application and Description</u>

Q. Briefly describe the procedural history of the instant case.

A. The Company filed its initial application with the MPSC on February 27, 2026, in MPSC Case No. U-22044. A prehearing conference was held on May 7, 2026. On May 12, 2026, the Company held a Technical Conference[2] with participation from Staff and the intervening parties.

Q. Please briefly describe the Application and associated project.

A. The project is an approximately 200 MW ground-mounted photovoltaic (PV) solar facility proposed in Blissfield and Deerfield Townships, Lenawee County, Michigan.[3] Glacier Meadows is a wholly owned subsidiary of Orsted Onshore North America, LLC.

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[2] The Technical Conference, described in the AFIP Section C-5, is an informational conference among all parties in the case to view and discuss the site plan and other topics of interest.

[3] Direct Testimony of Kate Brennan, p. 3.

The project area includes approximately 2,213 acres, of which 1,090 acres is described as being fenced-in and containing infrastructure including solar panels.[4] The fenced-in portion of the project is considered the "project footprint." Approximately 20.6% of the project is located in Blissfield Township, and approximately 79.4% in Deerfield Township, located approximately equidistant between the villages of Blissfield and Deerfield.[5] The project area is described as active agricultural lands predominantly used for row crop activities.[6]

Q. Does the project comply with MCL 460.222(1), regarding minimum threshold size?

A. Yes. The minimum size for a PA 233 certificate for a solar facility is 50 MW, and this project is proposed to include a nameplate capacity of approximately 200 MW.

Q. Did the Company's application comply with the Application requirements of the AFIP and PA 233 pertaining to a description of the project?

A. Yes. The Company's application provided a Project Description that contained the complete name, address, and phone number of the applicant for the application;[7] a general description of size, purpose, and location;[8] a general description of where the facility will be located; [9] the percentage of land within the township, city or village and county dedicated to energy generation;[10] and the expected use.[11] Based on the project description presented in Exhibit A-2 page 2-3 and described in Company witness Marla

[4] Direct Testimony of Marla Korpar, p. 21.
[5] *Id* at p. 22
[6] *Id* at p. 22.
[7] Exhibit A-2, p. 2
[8] *Id.*
[9] *Id*.
[10] *Id* at p. 3.
[11] *Id*.

Korpar's direct testimony, the Application contains all of the required information listed in Section 6.3.2 of the AFIP, as well as that necessary to meet the requirements of PA 233.

<u>Fee Exhibit</u>

Q. How are fees discussed in PA 233 and in the AFIP?

A. Section 226(4) of PA 233 states, "the commission may assess reasonable fees to the applicant to cover the commission's administrative costs in processing the Application, including costs for consultants to assist the commission in evaluating issues raised by the Application." MCL 460.1226(4). Further, Section 5 of the AFIP discusses application fees and lays out a proposed structure for assessing fees, stating: "the applicant is required to pay . . .the costs for retaining consultants on specialty issues. . . ." It also provides direction for filing a "Fee Exhibit."

Q. Has the Commission issued any subsequent guidance on the applicability of fees in PA 233 cases?

A. Yes. The July 10, 2025 Commission Order in MPSC Case No. U-21547 waives the collection of certain fees allowed pursuant to PA 233 and the AFIP including the base application fee, while explicitly retaining fees associated with consultant expert testimony among other potential applications.[12]

Q. Has Staff provided an estimate of fees associated with this case?

A. Yes, following the prehearing conference, Staff's Exhibit S-1, Fee Exhibit, was submitted to the docket in the instant case on May 20, 2026, which provided an estimate of total

[12] MPSC Case No. U-21547, 7/10/25 Order, p 5.

hours and cost for the use of consultants, and is also sponsored as Exhibit S-1 included with this testimony.

Pre-Application Requirements

Q. What are the basic pre-application requirements under PA 233?

A. PA 233 provides that "[b]efore beginning construction of an energy facility, an electric provider or IPP [Independent Power Producer] may, pursuant to this part, obtain a certificate for that energy facility from the Commission." MCL 460.1222(2). "To obtain a certificate for an energy facility, an electric provider or IPP must comply with the requirements of [S]ections 223 and 224, and then submit to the commission an application as described in [S]ection 225." MCL 460.1222(2).

Under certain circumstances, Section 223 (specifically MCL 460.1223(1)) requires the electric provider or IPP to hold a meeting in each affected local unit (ALU). But "[a]t least 60 days before a public meeting held under subsection (1), the electric provider or [(IPP)] planning to construct an energy facility shall offer in writing to meet with the chief elected official [CEO] of each [ALU], or the [CEO's] designee, to discuss the site plan." MCL 460.1223(2).

Section 223(3) of PA 233 further provides that "[i]f within 30 days following [such a meeting], the [CEO] of each [ALU] notifies the electric provider . . . that the local unit has a compatible renewable energy ordinance [CREO], then the electric provider or [IPP] shall file for local approval. . . " MCL 460.1223(3).

Local Government Outreach

Q. Did the Company offer in writing to meet with the CEO of each ALU to discuss the site plan?

A. Yes, as described below, pursuant to AFIP Section 6.3.4(1).1 the Company described the efforts to meet with each of the two townships as well as with the County. Pursuant to the May 7, 2026 Opinion of the Court of Appeals in Case No. 373259, Staff considers Blissfield Township, Deerfield Township, and Lenawee County to be ALUs.

Q. Did the Company provide documentation of its efforts to communicate with each ALU, including whether meetings took place, who participated, and what matters were discussed?

A. Yes. Each of these are described with supporting evidence in Exhibit A-4.1 and the Direct Testimony of Marla Korpar at pp. 14-15.

<u>1. Outreach to ALU 1: Blissfield Township</u>

In Table 1 provided on pages 4-6 of Exhibit A-4.1, the Company describes all correspondence with the CEO of Blissfield Township. Exhibit A-4.1, page 4 shows that on February 14, 2025, the Company sent an offer to meet with the Blissfield Township Supervisor to discuss the site plan.[13] Blissfield Township responded to the Company's official request stating that it has a CREO.[14] Blissfield Township also offered three meeting dates and times,[15] however the Company notes that those were the Blissfield Township Board's regularly-scheduled public meeting dates[16].

Having received a response to its request regarding a CREO, the Company apparently did not attend the Board meetings "but confirmed in writing that it remained open to meeting with the Blissfield Township Supervisor under PA 233 to discuss the

[13] Exhibit A-4.1, p 17.
[14] Exhibit A-4.1 pp. 2-3, 28.
[15] *Id*. pp. 27-28.
[16] *Id*.. at p. 29.

project."[17] The Company also provided evidence of correspondence in March 2025 requesting information on filing logistics. On May 27, 2025, the Company submitted the project application locally, along with stating its intention to submit to the MPSC after the 120-day review period has expired, and a note that no response had been received to date on its offer to meet with the CEO.[18]

Eventually, the Company was invited to speak at a Blissfield Township Planning Commission special meeting on August 26, 2025, to review the project.[19] The Company describes that 8 of its subject matter experts attended and were prepared to answer questions, though were allotted only 15 minutes for their presentation, and there was no opportunity for the CEO or other members of the public to hear from the team members.[20] The Company expressed a willingness to present at future Planning Commission meetings.[21]

In its application, the Company also provides copies of correspondence including responses to questions on the project ranging from materials of the solar panels, the complaint resolution process, road use agreement development, solar energy facility exemption and tax revenue analysis, topsoil disturbance, noise limits, safety, and other topics.[22]

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[17] *Id.*
[18] *Id*. at p. 38.
[19] *Id*. at p. 48.
[20] *Id*. at p. 52.
[21] *Id*.
[22] *Id*. at pp. 53-56.

On October 7, 2025, the Blissfield Township CEO provided notice to the Company representing that its local application had been approved; the related resolution with Special Land Use Permit conditions was attached.[23]

2. Outreach to ALU 2: Deerfield Township - In Table 2, provided on pages 9-13 of Exhibit A-4.1, the Company describes all correspondence with the CEO of Deerfield Township. Exhibit A-4.1, page 8 shows the Company, on October 11, 2024, sent a request for an informal meeting with Deerfield Township, along with follow-up on October 31, 2024, and yet another attempt on January 21, 2025. However, Deerfield Township does not appear to have responded directly to those meeting requests.[24]

From that point, the facts in Deerfield Township largely mirror those of Blissfield Township. The Company sent a formal offer by Certified U.S. Mail and Email to meet with the Deerfield Township CEO to discuss the project.[25] The Township responded with three dates and times to discuss the Site Plan (corresponding with Board regularly-scheduled meeting dates), and also noted that Deerfield Township has a CREO pursuant to PA 233.[26] The Company clarified that its invitation to meet was directed specifically to the CEO and/or Deerfield Township Supervisor, rather than as participation in the general public board meeting.[27] The Company does not appear to have attended the Deerfield Township Board meetings, but remained open to meeting with the Deerfield Township Supervisor under PA 233 to discuss the project.[28]

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[23] *Id*. at pp. 97- 132.
[24] Exhibit A-4.1, p 225, 224
[25] Exhibit A-4.1, p. 222; p. 227.
[26] Exhibit A-4.1, p. 232.
[27] Exhibit A-4.1, p. 232.
[28] Exhibit A-4.1, p. 238.

As with Blissfield Township, the Company provided information in its application relating to requests for information on local filing logistics. On May 27, 2025, it submitted the application locally. Again, the Company stated its intention to submit to the MPSC after the 120-day review period had expired, under the assumption that the project could not be approved under the local ordinance as written.[29] The Application also shows correspondence between the Company and the Township between June 2025 through September 2026 requesting site plan documents and information pertaining to the project, as well as inquiries about escrow fees.

Deerfield Township emailed an executed version of a resolution passed by the Board on October 2, 2025, representing the project was approved. The Company notes that this resolution did not include a full accounting of the escrow fees pertaining to the application.[30]

3. Outreach to ALU 3: Lenawee County. The Company describes that it sent an offer to meet via certified U.S. Mail and Email to the County Chairperson, Mr. Van Doren, to discuss the project on February 14, 2025.[31] The County indicated that it had not adopted a CREO consistent with PA 233 and that the County does not exercise zoning jurisdiction over either Deerfield or Blissfield Township.[32] Furthermore, the response letter indicates "it is therefore impossible for Lenawee County to have an applicable CREO if Deerfield and/or Blissfield Township have enacted a CREO".[33] The County Chairman, in his letter, also considers a potential concern over solar glint and potential hazardous impact on the

[29] Exhibit A-4.1, p. 252.
[30] Exhibit A-4.1 p. 327.
[31] Exhibit A-4.1 p. 452.and p. 455
[32] Exhibit A-4.1 p. 459.
[33] Exhibit A-4.1pp. 461-462

Lenawee County Airport.[34] The County followed up with subsequent email on March 7, 2025, reinforcing the statement that Lenawee County is not required to have a CREO and that the project should refer any requests for status of applicable CREOs to Deerfield and/or Blissfield Townships.[35]

Q. In Staff's opinion, did the Applicant comply with its pre-application responsibility to offer in writing to meet with each ALU?

A. Yes. The Applicant conducted appropriate outreach to Blissfield Township,[36] Deerfield Township,[37] and Lenawee County.[38]

Public Meeting

Q. What is the requirement related to hosting a Public Meeting?

A. Under PA 233 Sec. 223(1), "[a]n electric provider or [IPP] that . . . proposes to obtain a certificate for . . . an energy facility shall hold a public meeting in each affected local unit."

Q. Did the Company fulfill its public meeting obligations under PA 233?

A. Yes. The Company provided extensive evidence of community outreach and education efforts conducted in both Blissfield and Deerfield Townships, which are each in Lenawee County. Such evidence includes descriptions of multiple public meetings including those of Blissfield Township Board of Trustees, Deerfield Township Board of Trustees, Special Permit Hearing Blissfield Township Planning Commission, and Special Permit Hearing Deerfield Township Planning Commission. Copies of the community and educational

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34 Id.
35 Id at p. 559
36 Exhibit A-4.1, pp 3-6
37 Exhibit A-4.1. pp.8-13
38 Exhibit A-4.1, pp 13-15

activities, including the date, time, venue, meeting length, number of attendees, and number of public commenters at each meeting is included within Exhibit A-4.2.[39]

In response to Staff discovery, the Company also stated, that "pursuant to subsection 460.1223(3)(d), "an electric provider or IPP that submits an application to the commission pursuant to this subsection [i.e., subsection (3)] is not required to comply with subsection (1), and thus Glacier Meadows was exempt from the public meeting requirements set forth in MCL 460.1223(1)."[40] Staff agrees.

Notice of Opportunity to Comment

Q. What is the requirement for providing Public Notice of the Opportunity to Comment on the Application?

A. The statute requires "upon filing […] the applicant shall provide notice of the opportunity to comment on the Application in a form and manner prescribed by the Commission." MCL 460.1226(2). It also prescribes specific language for the notice to be published in a newspaper of general circulation within each ALU, written in plain non-technical language.

Q. After filing its application with the MPSC, did the Applicant provide a Notice of the Opportunity to Comment on the Application, in the form and manner presented by the Commission?

A. Yes. The Applicant provided evidence that it executed the required notice of opportunity to comment both via the required mailing and publication in a newspaper of general circulation, shown in the direct filings in the instant docket. These include a publication

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[39] Exhibit A-4.2 pages 3- 9 -223
[40] S-2.3

to The Daily Telegram, a daily newspaper of general circulation published in Adrian, Lenawee County, Michigan for the issue published on April 22, 2026.[41] Additionally, the Applicant provided a mailing to a total of 305 addresses; these include the Blissfield Township Clerk, Blissfield Township Supervisor, Deerfield Township Clerk, Deerfield Township Supervisor, Lenawee County Board of Commissioners Attn: James Van Doren, Chair, and Lenawee County Clerk Attn: Roxann Holloway, as well a mailing to 12 Federally recognized Tribes.[42]

Local and Community Outreach

Q. Please describe what the Company provided as part of Exhibit A-4.2, Local Outreach, per the AFIP Section 6.3.4(2) and Section 225(1)(j) of PA 233.

A. The AFIP states that Exhibit A-4.2 should contain a summary of community outreach and education efforts, including copies of all presentation or education materials, number of attendees for any public meetings, meeting length, number of commenters, and topics discussed during meetings. The AFIP suggests, but does not require, that outreach conducted to locally impacted community groups, environmental organizations, and labor union representatives should also be included.

Q. Has the Company conducted community and local outreach?

A. Yes. The Company describes the good-faith efforts it took to work closely with community groups, environmental organizations, and other community members. The Company provided a summary of community outreach efforts and all public meeting and presentations as part of Exhibit A-4.2.[43] The Company provides a summary of all

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[41] U-22044-0036.
[42] U-22044-0037
[43] Direct testimony of Company witness Korpar, at pp.14-. 15.

community outreach and education events including summaries of ten public meetings before the Blissfield Board of Trustees, the Blissfield Township Planning Commission, the Deerfield Board of Trustees, and the Deerfield Township Planning Commission starting in December 2024.[44] The Company provides summaries of meetings with elected officials, including State Senator Joe Bellino[45] and Riga Township, with attendees including the township supervisor, trustee members, and clerk.[46] The Company describes its efforts to locally impacted groups and community members including the Lenawee County Fair and 4H, Lenawee County Chamber of Commerce, and Blissfield Main Street Downtown Development Association.[47] The Company has not yet conducted outreach with environmental organizations or with labor union representatives, though states that it anticipates conducting outreach in Q4 2026 as the project advances in detailed design and vegetative management planning, in coordination with its Engineering, Procurement, and Construction (EPC) contractor.[48]

<u>Changes or Accommodations</u>

Q. Did the Company provide a list of all accommodations, changes, and commitments made by the Company due to public comments and feedback received as required by the AFIP, section A-4.3?

A. Yes, the Company provided Exhibit A-4.3, which includes public hearing transcripts containing public comments received by the Company during the local permitting

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[44] Direct testimony of Company witness Korpar, p. 15.
[45] Exhibit A-4.2, p. 10.
[46] Id pp. 10-11.
[47] Id pp. 11-15.
[48] Id at pp. 15-16.

process prior to submission of the Application.[49] The Company provides a summary of, and its response to, 15 specific requests from community members and its commitments to accommodate.

Q. Has the Applicant implemented any accommodations or changes to the project design to address the public comments received?

A. Yes. The Applicant committed to and incorporated a variety of changes to the proposed project based on community members, Township officials, and landowner feedback. This feedback was obtained through local public meetings, adjacent landowner outreach, and written statements, as well as the direct testimony provided by Company witness Marla Korpar.[5]

While no overarching trends were identified, the Applicant demonstrated transparency in responding to the fourteen listed concerns, including voluntary vegetative screening for adjacent non-participating property owners, minimizing noise concerns by increasing the setback from non-participating property lines from the 50 foot requirement to 150 feet, utilizing parcels with no prime farmland soils, limiting topsoil disturbance during Project construction to less than 5% of the total Project footprint, and expanded the non-participating property line setback from the required 50 feet to 150 feet.[50]

Additionally, the Company accommodated the request of the James W. Strahan Trust to keep collection lines 200 feet away from the northern edge of their property line (parcel DE0-225-4650-00) to avoid impacts to underground drainage tiles.[51]

Q. What does Staff recommend with regard to accommodations?

[49] Exhibit A-4.3 pp. 2-10.
[50] Exhibit A-4.3, pp 1-4.
[5151] Id. p. 4.

A. Staff recommends the Commission find that the Applicant has implemented accommodations or changes to the project design to address the public comments received.

Tribal Outreach

Q. Please describe what is required to be provided as part of Exhibit A-4.5, Summary of Tribal Engagement, per the AFIP?

A. The AFIP states that local outreach documentation should include: "[a] summary of tribal engagement, including at a minimum, the communication and outreach conducted with each tribe, the date and time, who participated and a summary of tribal input and outcomes if applicable."

Q. Has the Applicant offered proof that it conducted outreach to Tribal governments as required by the AFIP?

A. Yes. The Company provided evidence that it sent consultation letters to all 12 federally recognized tribes in the state of Michigan.[52] In Exhibits A-4.5, Appendix 2 describes detailed summary of engagement efforts with Tribal governments, including communications, date, and time of meetings, participants involved, and summary of the tribal input received.[53] Nearly all of the statements regarding "Tribal Input & Outcomes" is the same, and summarized in the exhibit and its attachments,[54] indicating that the Company has not received feedback from that tribe on the Project, though intends to send the final version of the Unanticipated Discoveries Plan (UDP) following the project

[52] Direct Testimony of Witness Brennan. p. 10.
[53] Exhibit A-4.5 pp. 2-76.
[54] Id pp. 2-10.

approval, unless the Company receives future correspondence asking not to be included in future notifications for the project.[55]

There were three instances of responses. In the first, Ms. Lakota Hobia, Tribal Historic Preservation Officer (THPO) of the Match-E-Be-Nash-She-Wish Band of Pottawatomi (Gun Lake Tribe), responded with a letter stating the tribe has identified the presence of a historic property near the Project's Area of Potential Effects (APE); however, no direct, indirect, and/or cumulative effects to the identified historic property were identified.[56] Ms. Hobia requested the use of a UDP that outlines protocols and asked to be added as a contact to the project's UDP, which the Company agreed to.[57]

In the second, Mr. Matthew J.N. Bussler, THPO, responded with a letter stating the project would have no adverse effect on any historic, religious, or culturally significant resources to the Pokagon Band of Potawatomi Indians, and requested that the project stop all work and contact the tribe should any cultural or archeological resources be uncovered during project construction.[58]

Third, Ms. Marcella Hadded, THPO of the Saginaw Chippewa Indian Tribe, responded with a letter stating that there are no recorded resources in the Project's APE, the project will have no effect on cultural resources, and recommended an inadvertent discovery plan be created and implemented. The Company added Ms. Hadden as a contact to the project's UDP and committed to sending the final version following project approval.[59]

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[55] Id at pp. 3
[56] Id at p. 7
[57] Id.
[58] Id at p. 8.
[59] Id at p. 9.

Q. Did MPSC Staff reach out to the twelve federally recognized tribes in Michigan?

A. Yes, the MPSC Tribal Liaison provided a formal offer of consultation to all of Michigan's federally recognized Tribes, including a summary of the Company's application, an offer of formal Consultation, notices of the prehearing date and a weblink to the case details available on the MPSC's e-docket filing system, as well as an offer to meet with MPSC Staff prior to the prehearing conference.[60]

Q. Did Staff receive any requests for consultation on this instant case?

A. No, they did not.

Complaint Resolution Process

Q. Please describe the scope of your review related to the Complaint Resolution Process.

A. I reviewed the Company's discussion of its proposed Complaint Resolution Process within the application, primarily in Exhibit A-1.16 and the associated direct testimony of Company witness Marla Korpar.[2] I compared these materials against the requirements laid out in the AFIP, primarily AFIP section 7.16(a), and with respect to PMC 5.

Q. Did the Company discuss the proposed procedures and other logistical details for its Complaint Resolution Process?

A. Yes, partially. The Company discussed materials required by the AFIP in Company witness Korpar's direct testimony and in Exhibit A-1.16. The Company's plan included instructions and details about the Applicant's planned complaint review process, including the required contact information (name of designated applicant representative, phone number, email address, website, and procedures for each complaint

[60] Guide for Involvement by Tribal Governments in Infrastructure Siting Cases at the Michigan Public Service Commission, Updated May 2025. https://www.michigan.gov/mpsc/-/media/Project/Websites/mpsc/consumer/MPSC_Tribal_Involvement_Guide.pdf.

and resolution). The Company noted that the designated representative is subject to change as the Project progresses through stages of development, construction, and operation.[3]

The Applicant notes that the procedures in place for periodic reporting and subsequent resolutions will be filed into the docket on at least a quarterly during the construction phase and on at least an annual basis during the operational and decommissioning phases.[4]

Upon review of the evidence presented by the Company, Staff's understanding is that the plan is designed to address prospective complaints that either arise during the construction or operational phase of the project. The designated representative will provide initial response, either verbally or in writing as appropriate, with the goal of a 48-hour response time to confirm receipt of the complaint and obtain additional information, as needed. The decommissioning phase was not addressed.

Q. Does Staff take a position regarding the Complaint Resolution Process?

A. Yes. Consistent with the AFIP, Staff supports applying a condition to the project with respect to the Complaint Resolution Process. The condition proposed by the Company in Exhibit A-14 is similar to the AFIP's proposed minimum condition (PMC), modified by Staff as follows:

> PMC No. 5: The Applicant is required to implement its complaint resolution process provided in Exhibit A-1.16. The Applicant is required to keep up to date the following information: the name of a designated developer/operator representative provided with the authority to resolve local complaints, a dedicated phone number for complaints, an email address for complaints, and website information instructing the public on the complaint resolution process.

Staff recommends the Commission approve the preliminary Complaint Resolution Process and associated procedures as described in the application, and therefore supports the Company's proposed condition, with edits to ensure clarity in applicability and enforceability to ensure that minimum standards are met.

Staff Recommended Conditions of Approval

Q. What authority does Staff understand PA 233 grants to the Commission in regard to conditions of approval?

A. Staff's understanding is that PA 233 expressly authorizes the Commission to "condition its grant of the Application on the applicant taking additional reasonable action related to the impacts of the proposed energy facility" and provides a non-exhaustive list of conditions that the Commission may include in a certificate based on the plain language of the statute. MCL 460.1226(6).

Q. How are Proposed Minimum Conditions (PMCs) described in the AFIP?

A. Attachment F of the AFIP provides a list of 21 PMCs, and introduces them as follows:

> The applicant shall include proposals to meet the proposed minimum conditions when filing an application or provide an explanation justifying why any of the proposed minimum conditions should not be applied to the facilities. Those participating in the case are encouraged to evaluate the efficacy of the proposed conditions made by the applicant in the Application and to propose modifications or additions to proposed conditions in contested cases filed pursuant to PA 233. [61]

These initial PMCs were a product of the MPSC-led workgroup efforts conducted throughout 2024 during development of the AFIP recommendations, which

[61] *See,* MPSC Application Filing Instructions and Procedures Errata Order, 10/24/25, MPSC Case. No. U-21547, p. 79.

encompassed a variety of stakeholders' perspectives. Each of these PMCs requests certain commitments pertaining to compliance aspects of a project that broadly correlate to sections of PA 233. Staff's understanding is that these were intended to serve as a standardized set of PMCs, while allowing and encouraging additional and edited conditions to be included based on case-specific circumstances.

Q. Has the Commission applied conditions of approval in other types of infrastructure siting cases?

A. Yes. As part of a separate statutory mechanism for intrastate transmission line cases requesting an Act 30 certificate, the Commission must determine that, "[t]he applicant has accepted the conditions contained in a conditional grant." MCL 460.568(5)(d). In the combined MPSC Case Nos. U-21471 and U-21472, the Commission granted conditional approval to require consideration of minor route modifications, to communicate with landowners regarding complaint resolution contact information, and to require investigation of noise complaints.[14] It is also common for the Commission to grant conditional approval of natural gas and crude oil pipeline cases, including Act 9 and Act 16 cases, with conditions such as making certain accommodations for landowners or committing to bury pipes at a below-agriculture grade to allow continuous farming operations.

Q. Did the Company offer any evidence with regard to the AFIP PMCs?

A. Yes, the Company offered evidence through the testimony of Company witness Korpar and through Exhibit A-14, which the Company describes as adhering to the various commitments, agreements, established processes, and contingencies.[62,63] It is Staff's understanding that the Company has agreed to meet, or exceed, all applicable minimum conditions as evidenced by the information provided in Exhibit A-14. The Company described its understanding of, and commitment to, each of the Conditions in Exhibit A-14 pages 1-7, noting that PMC numbers 12 and 13 are not applicable, since the project is not a wind project. Exhibit A-14 provides evidence that the Company provides agreements including location and project-specific information to comply with the proposed minimum conditions.

Q. What is Staff's assessment of the Company's proposed conditions and its recommendations?

A. Staff agrees that most of the PMCs are applicable to the project in this case and generally recommends adoption of those conditions which Glacier Meadows agrees to. Staff offers amended language for some conditions, informed by the evidence analyzed in this case.

Q. Is Staff sponsoring an exhibit that collects Staff's recommended amendments to the conditions?

A. Yes. Staff's amended conditions are collected in Exhibit S-2.1, "Staff Proposed Conditions- redlined." Additionally, Exhibit S-2.1 provides a red-lined version of the conditions from Attachment F to the AFIP, with more precise and nuanced language pertinent to the contemplated project, as well as additional condition language

[62] Direct testimony of Witness Korpar at p. 22.
[63] Exhibit A-14 pp. 2-7

where applicable. Staff reserves the opportunity to adjust its condition recommendations based on subsequent evidence in the instant case.

Q. What is Staff's recommendation with regard to proposed conditions?

A. If the Commission grants conditional approval of the certificate, Staff recommends that the certificate include Staff's proposed conditions as a binding set of conditions.

Q. Does Staff have any additional recommendations regarding conditional approval?

A. Yes. In an effort to organize types of reports, timing, and cadence, Staff structured several of the sub-reporting items under single topics, to propose logical grouping of items that should take place during similar timeframes. One example is PMC No. 2, which asks for several subsequent reports and specifies the timing at which these are to be filed to the MPSC.

Finally, while my testimony provides additional discussion on a select number of certain conditions, this is not meant to be exhaustive of Staff's proposed amendments on conditions. Additional Staff witnesses address the remainder of amendments to proposed conditions in direct testimony.

Discussion of Certain Conditions

PMC 1

Q. What evidence has the Company provided regarding PMC No. 1, regarding an agreement to either obtain and comply with construction or building permits from the ALU or to enter into Third Party Independent Monitor (TPIM) agreement?

A. The Company states that it agrees to this condition, and states its plan to enter into a TPIM agreement funded by the Company consistent with the requirements of this minimum condition.[64]

Q. Does Staff have any recommendations that pertain to PMC 1, agreement to obtain building or construction permits?

A. Yes. Staff supports the language provided in PMC 1, while adding language to clarify the expectations of filing reports to Staff. Staff's proposed edit to PMC 1 is stated as:

> 1. The Applicant is required to enter into a Third-Party Independent Monitor Agreement (TPIM), funded by the Applicant, selected in consultation with MPSC Staff, to be onsite during periods when construction is taking place on a weekly basis to monitor the construction activities. The TPIM would be granted authority to resolve complaints and request immediate cessation of activities that the monitor can document are in breach of any plan, permit, or agreement, pertaining to the construction of the facility.
>
> The Applicant's TPIM is required to provide reports to Staff and the ALUs on the progress of construction every month starting from the start of construction and continuing through the first 3 months of commercial operation.

Staff recommends the adoption of PMC 1, though points out that under Section 231(5), certain local permits and licenses will still be required to be received under state law. Staff does not understand adoption of PMC 1 to obviate requirements to otherwise obtain necessary local permits. Additionally, Staff recommends that the Company competitively solicit bids for qualified engineering firms that are eligible to perform TPIM responsibilities via a request for proposals (RFP) and that the Company coordinate

[64] Exhibit A-14 p. 2.

with Staff on the RFP and final selection of the TPIM, which should be hired and paid for by the Company, as it agreed to.

PMC 2

Q. What evidence has the Company provided in regards to PMC No. 2, "Preconstruction Meeting"?

A. The Company has offered evidence that it has agreed to participate in a preconstruction meeting with MPSC Staff and either the ALU who has issued a construction or building permit or a third-party independent monitor (TPIM), to ensure Staff has the most recent info and final documentation prior to construction.[65] The Company also agrees to file final drawings, plans, and permits received in the docket prior to the start of construction.[66]

Q. Does the AFIP provide additional guidance on activities that must occur prior to reaching commercial operations?

A. Yes. In Section 8.1 of the AFIP, it is required that, prior to commencing commercial operations, the Company file a completion report in the applicable case docket certifying compliance with the statute as well as any conditions associated with an approved certificate. The completion report must contain: (1) Finalized site plans, finalized schematics, and dimensioned drawings; (2) Descriptions of compliance with Section 226(8) for the relevant technologies included within the facility; (3) A list of all permits received including the permitting agency, the date the permit was received, and any conditions attached to each permit; and (4) a Postconstruction Sound Monitoring Report.

[65] *Id.*
[66] *Id.*

The completion report must also contain information on the Decommissioning Plan and Financial Assurance.

Q. Does Staff have an opinion about whether it is more effective to provide certain information prior to construction as opposed to prior to the commercial operation date (COD)?

A. Yes. In Staff's opinion it is prudent to include subitems 1-3 under AFIP Section 8.1(a) prior to commencing construction both to comply with requirements of the AFIP and for Staff and other parties to have a common understanding of the final site plan and associated documents. It is crucial for all parties involved with construction, compliance, and monitoring to be using the same finalized site plan maps and dimensioned drawings to ensure the project is constructed according to the project approval and specifications received in its certificate from the MPSC, if granted. Staff underscores the language in AFIP PMC No. 2 that the pre-construction meeting is intended "to ensure Staff has access to the most recent information and final documentation prior to construction".[67]

Q. Does Staff have a recommendation to amend PMC 2?

A. Yes. Staff recommends PMC 2 be amended to include requiring all of the items in 8.1(a) be included as part of the documentation at the preconstruction meeting along with additional final reports, plans, etc. Language effecting this is included below, within Condition 2(a). Staff generally supports the inclusion of the Company's PMC, but recommends the following additional language be substituted, based on my testimony

[67] AFIP, Attachment F, p. 79.

and the testimony of Staff witnesses Cordero, Glass, Frer, Kroeker, Krupp, Lobodzinski, Moaveni, and Warner.

2. The Applicant is required to participate in a pre-construction meeting with the Staff and the ALUs. The Applicant must extend invitations to attend the pre-construction meeting to each ALU, however, their attendance would not be required. Prior to the pre-construction meeting, the Applicant is required to:

a. File final drawings, plans, compliance and permits received into the docket for Case No. U-22044 consistent with AFIP Section 8.1(a)(1-3).

b. Provide final versions of the Emergency Response Plan (A-1.9) and Fire Response Plan (A-1.10).

c. Provide the final version of the Unanticipated Discoveries Plan (A-1.14), and materials resulting from the State Historic Preservation Office's (SHPO) review of the project, including evidence that any identified impacts to cultural resources have been addressed according to SHPO's recommendations in the final site plan.

d. File an updated decommissioning cost estimate, and a demonstration of financial assurance acquired to date. Such materials must reflect the planned facility layout, equipment quantitates, disturbed acreage, and participating parcels; must follow the requirements of AFIP Exhibit A-13 and Section 8 and be cross-consistent in commitments, plans, and financial estimates; and must account for the land enrolled in the Michigan Farmland Open Space Preservation Program (commonly referred to as PA 116), consistent with the requirements of other conditions of this certificate. The decommissioning plan shall also include the following:
    i. Address how damage from extreme weather events or damage from human causes will be addressed, and/or how they might lead to applicant-initiated decommissioning.
    ii. Include additional soil sampling at a rate of no less than one (1) sample per 40 acres for the following:
        1. Phosphorus, potassium, calcium, magnesium, sodium, sulfur, manganese, copper, and zinc; pH and acidity; soil organic matter content, cation exchange capacity, and topsoil depth.
        2. Any hazardous substances contained in equipment which is introduced to the site by the Company.
    iii. Include "the reasoning and agreement with [each] property owner" for all project related facilities and equipment intended to be kept in place, including specific locations of affected property owners.
    iv. Include procedures to address the issues of dust, noise, and traffic in accordance with 6.3.13(a)1 of the AFIP.

v. Include removal methods and site clearance activities for the project substation, O&M building, gen-tie line, and points where underground collection lines enter or exit the ground at a depth less than four feet.

vi. Include the locations of the inverters, substation, and collection line entrance and exit points as part of the 100% design set anticipated immediately prior to commencement of construction consistent with the Company's response to discovery request GM-6-7 and 8 of Exhibit S-6.1.

vii. Include a list of all hazardous substances including those in facility equipment (including, but not limited to solar panels and switchgears), and all information as provided in response to discovery request GM-6-11 of Exhibit S-6.1, as well as any updated information as applicable.

viii. Include the following commitments and information in its final decommissioning plan and agreement, as well as a description of how it will meet such commitments:

A. A commitment to repeat its pre-application soil sampling, in a manner consistent with the baseline soil health survey plan, at decommissioning

B. A commitment to restoration of the project area, including soils, to a useful condition similar to what existed before construction.

C. Perform remediation of any hazardous substances introduced by project activities through a release, as defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 42 U.S.C. Section 9601(14) and (22).

D. Utilize, at minimum, the Generic Residential Cleanup Criteria in R 299.46 under Part 201 of the Natural Resources and Environmental Protection Act (NREPA) as necessary to ensure the soil restoration standard in PA 233 is met with regard to the identified hazardous substances of concern.

E. Comply with any applicable federal environmental laws or environmental laws of this state regarding remediation which are more stringent than the criteria set forth in R 299.46.

F. Describe how required soil decompaction and grading will be identified and performed as provided in response to question 17 of Exhibit S-6.1.

ix. Regarding commitments and agreements with property owners, the Company is required to replace the language in Section 6.b. of Exhibit A-13.1 with "the restoration measures agreed to by individual landowners will conform to the terms of each written landowner agreement. The land will be returned to its pre-construction condition leaving any desirable infrastructure as requested by the subsequent landowner.

x. The Company is required to update the language of Section 6.c. of Exhibit A-13.1, by either removing the phrase, "to the extent possible" entirely, or, use language that might apply to specific situations where planning and coordinating with landowners is not possible. In addition, the Company is required to include a plan, per AFIP section 6.3.13(A)(5.iii, including the method of how landowners, ALUs, and local governments will be coordinated with and timelines and methods of communication.

e. At least 60 days prior to the pre-construction meeting, the Applicant is required to file the following:

   i. Final Noise Modeling Report – a final noise modeling report demonstrating compliance using the final facility layout and final make and model of all operational sound sources, including inverter and transformer cooling systems and any auxiliary equipment, consistent with the AFIP Attachment D requirements. The final report must include the final source sound-power data and associated source-data uncertainty or a conservative uncertainty allowance, and the final substation sound-barrier design information, including height, length, location, material, transmission loss or insertion loss, absorptive treatment, and any openings or penetrations, with confirmation that the final barrier design is acoustically equivalent to, or more protective than, the modeled design. The final report must also resolve the apparent duplicate inverter entries in Exhibit A-1.7, Attachment A, Table A-1, and disclose must also include a complete and internally consistent final source inventory and coordinate table confirming all modeled operational sound sources, and disclose unrounded modeled results and source-category contributions at the controlling receptor and any receptor modeled at 53 dBA or higher. The final report must either retain the +5 dB tonal penalty for the inverters or substantiate its removal consistent with AFIP Table 1, including underlying one-third-octave-band or narrowband source data, receptor-level tonal-prominence calculations, and measured background sound (lowest hourly L90). If the Applicant seeks to remove the inverter tonal penalty, the final report must also include a sensitivity run retaining the penalty.

   ii. Baseline Sound Monitoring Report – a baseline sound monitoring report, consistent with AFIP Attachment D pre-construction monitoring requirements.

   iii. Construction Noise Control Plan – a plan describing major construction noise; major construction activities/equipment; standard work hours; exceptions/notice procedures; equipment maintenance/mufflers; idling limits; and specific controls for any high-noise activities, if applicable. When a complaint reasonably indicates material construction noise impacts, the Applicant must promptly investigate and implement corrective actions consistent with the construction noise control plan. If effective corrective actions cannot be implemented promptly, the Applicant is required to implement reasonable interim controls and adjust operations as necessary to address the complained-of impacts until controls are implemented.

f. Provide the signed and executed project labor agreement or collective bargaining agreement consistent with Condition 20.

g. Provide any plans required under the National Environmental Protection Act (NREPA), upon completion by the Applicant. This includes Spill Prevention Control, and Countermeasure Plan (SPCC), Pollution Incident Prevention Plan (PIPP), Soil Erosion and Sedimentation Control (SESC) plans, and Stormwater Pollution and Prevention Plans (SWPPP), as applicable, as well as any other applicable plan.

h. Provide the final version of the Michigan State University Pollinator Scorecard for Solar Sites, the final vegetation and soil management plan.

i. If the Applicant is unable to execute host community agreement(s) after good-faith negotiations with an ALU or ALUs, it must provide a plan identifying one or more community-based organizations providing benefits within or serving the residents of the applicable ALU(s), with which the Applicant may execute a community benefits agreement. The Applicant must thoroughly explain how the community benefits agreement executed with the community-based organization(s) will prioritize benefits to the communities in which the energy facility is to be located.

j. The following costs are required to be included as line items in the decommissioning cost estimates:

    i. Costs associated with insurance (bond and commercial liability, property, workman's compensation and environmental).
    ii. Costs associated with soil assessment and remediation.
    iii. Costs associated with decommissioning of the substation, gen-tie lines, O&M Building and access roads.

k. To address deer entrapment, the Applicant must develop a facility-specific fencing and entrapment plan prior to the start of operations, including the following:

    i. Regular inspections of fences for damage that could allow deer to enter over or under the fence.
    ii. Frequent inspections for entrapped deer.
    iii. Protocols that minimize the time that gates to the facility are left open.
    iv. Contingency plans for removing deer that have become entrapped.
    v. Contact numbers for the local Department of Natural Resources Wildlife Division Office.

l. The Applicant is required to submit the decommissioning cost estimate model input parameters with the revised decommission cost estimate required by Proposed Minimum Condition No.2.j

Q. Does Staff have an opinion regarding as-built surveys?

A. Yes, regarding as-built surveys, Section 8.2 of the AFIP requires that, within 90 days of achieving commercial operation date, the Company must submit a letter in the case docket confirming that an ALTA/ACSM (American Land Title Association/American Congress on Surveying and Mapping) as-built survey was submitted to the ALUs. Staff proposes as a new condition that the as-built survey also be filed to the docket in the instant case in order to establish a complete record of the project. Accordingly, an amended Condition No. 22 is proposed as follows:

22. Within 90 days of achieving the project Commercial Operation Date (COD), the Applicant must submit an ALTA/ACSM (American Land Title Association/American Congress on Surveying and Mapping) as-built survey in the case docket, as well as a letter in the case docket that confirms the same as-built survey was submitted to the Affected Local Unit(s).

<u>PMC 5</u>

Q. What evidence has the Company provided in regards to PMC No. 5, Complaint Resolution Process?

A. The Company has agreed to implement its Complaint Resolution Process or such other complaint resolution process approved by the Commission as a condition of certificate approval.[68]

Q. Does Staff have any recommendations regarding PMC No. 5, Complaint Resolution Process?

[68] Exhibit A-14, p 3.

A. Yes. This matter is addressed above in the Complaint Resolution Process section within my testimony. Staff's proposed amended language is as follows:

5. The Applicant is required to implement its complaint resolution process provided in Exhibit A-1.16. The Applicant is required to keep up to date the following information: the name of a designated developer/operator representative with the authority to resolve local complaints, a dedicated phone number for complaints, an email address for complaints, and website information instructing the public on the complaint resolution process.

PMC 17

Q. Does the Company address PMC No. 17, agreements to applicable (non-zoning) ordinances?

A. Yes, the Company addresses and indicates its agreement to comply with all other applicable (non-zoning) ordinances throughout the operational life of the facility that are in effect at the time the MPSC certificate is issued to the extent that such non-zoning ordinances do not conflict with or impose regulations on the project that are more restrictive than the requirements defined in Section 226(8) of Act 233.[69]

Q. Does Staff have any recommendations regarding PMC No. 17, "Ordinance Compliance"?

A. Yes. The Company agreed to certain language, stating "Applicant agrees to comply with all other applicable (non-zoning) ordinances throughout the operational life of the project in effect at the time the MPSC certificate for the project is issued."[70] While Staff supports the intent of compliance with other applicable non-zoning ordinances, Staff recommends removal of this condition, which is stricken from Staff Exhibit S-2.1, Staff Proposed

[69] Id at p. 6.
[70] Exhibit A-14.

Conditions – redlined. At the time of filing, the quantity and content of all potentially applicable non-zoning ordinances of the ALU are unknown. A comprehensive list of applicable ordinances has not been provided in the record to date. The language in this proposed condition is also duplicative of language contained in Section 231(3) of PA 233, thus Staff does not deem it necessary or practical to condition the certificate's approval upon inclusion of this language.

PMC 18 and 19

Q. What evidence has the Company provided to address PMC No. 18, agreement to comply with periodic reports, and PMC No .19, Annual Maintenance Plans?

A. The Company indicates its agreement to each of these PMCs using near verbatim language to that contained in the AFIP.[71]

Q. Does Staff have any recommendations on PMC No. 18, "Periodic Reports" and PMC No. 19 "Annual Maintenance Plans"?

A. Yes. Staff supports the Company's commitments to each of these sample minimum conditions. Staff recommends a standardized format with a prescribed cadence to help maintain consistent reporting expectations annually, throughout the life of the project. First, Staff proposes replacing "periodic" reports with "annual" reports. Second, Staff proposes combining this annual reporting requirement with the item contained in PMC No. 19, "Annual Maintenance Plans and Inspections." Maintenance plans, inspections, and periodic/annual reports should be contained in one comprehensive annual filing. To that end, Staff proposes the following amended language:

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[71] Id at p. 6

18. The Applicant is required to file an Annual Report to the docket in Case No. U-22044, with the first report due at the end of the calendar year in which the project reaches commercial operations. The Annual Report shall contain the following:

a. A report showing the average amount of electricity produced for the project per parcel;

b. A summary of complaints received during the time period as well as the resolution and/or plans for mitigation;

c. A report outlining the operating condition and performance of the facilities on the site;

d. A report listing any equipment or structural failures that took place during the period, as well as repairs planned or underway;

e. A report listing any improvements to the site or changes to site facilities, as well as those planned or underway;

f. Annual Maintenance Plans, including the Applicant's lighting maintenance records. (Note, this item was originally listed independently as PMC No. 19, however, Staff suggests efficiency by providing the plan as part of this Annual Report.);

g. Annual Inspection Results (Note, originally part of PMC No. 19.); and

h. Proof that the financial assurance remains in effect and sufficient, consistent with the terms of the Decommissioning Agreement, as well as any required updates, including to the decommissioning plan, cost estimates, and assurance."

Q. Are you sponsoring any additional exhibits related to this section?

A. Yes, Staff sponsors Exhibit S-2.2, "Staff Proposed Conditions – clean." This serves as a "clean" version of Staff's Proposed Conditions, which it recommends be applied to the certificate if the Commission grants approval of this project.

<u>Recommendations and Conclusion</u>

Q. Has the Company complied with the Application requirements set in law as well as with the Commission's AFIP?

A. Yes, Staff's opinion is that the Company has complied with the Application requirements in PA 233 and those outlined in the AFIP.

Q. Does Staff have a recommendation regarding certificate approval?

A. Yes. Staff recommends the Commission grant conditional approval of the Company's application for a certificate to site and construct an up to 200 MW solar facility in Blissfield and Deerfield Townships, Lenawee County, contingent on the conditions delineated in Exhibit S-2.2, Staff Proposed Conditions – clean, and as further detailed by Staff witnesses.

Q. Does that conclude your direct testimony?

A. Yes.

S T A T E O F M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of	)	
GLACIER MEADOWS SOLAR, LLC for	)	
a Renewable Energy or Storage Siting	)	Case No. U-22044
Certificate to construct a solar energy	)	
facility.	)	

QUALIFICATIONS AND DIRECT TESTIMONY OF

GUSTAVO D. CORDERO

MICHIGAN PUBLIC SERVICE COMMISSION

July 20, 2026

QUALIFICATIONS OF GUSTAVO D. CORDERO
CASE NUMBER U-22044
PART I

Q. Please state your name and business address for the record.

A. My name is Gustavo D. Cordero (he/him). My business address is 7109 West Saginaw Highway, Lansing Michigan 48917.

Q. By whom are you employed and in what capacity?

A. I am employed by the Michigan Public Service Commission (MPSC or Commission) as a Public Utilities Engineer within the Renewable Energy and Storage Siting Section of the Energy Operations Division.

Q. What are your current responsibilities?

A. My current responsibilities entail serving as an engineer reviewing and analyzing applications for renewable energy and energy storage facility siting pursuant to Public Act 233 of 2023 (PA 233). I provide expert witness testimony on technical matters in siting cases as directed. My primary technical focus area pertains to Site Plan and Engineering Design, Public Health and Safety, Sound, and Signal Impacts. In addition, I have also provided support in developing educational materials for interested townships that have requested information on the MPSCs renewable energy and storage siting certification process and support coordination of consultant's review of application materials and development of witness testimony in other active PA 233 cases.

Q. Would you please outline your educational background?

A. I earned a B.S.E. in Mechanical Engineering with a concentration in Energy from the College of Engineering at the University of Michigan in 2020. In 2023, I earned a M.S. in Environment and Sustainability with a specialization in Sustainable Systems from the School of Environment and Sustainability at the University of Michigan.

Q. Would you please outline your professional experience?

A. In 2020, I worked as a Project Manager for a solar installation and repair company known as Sumpter Solar Services. During my time at Sumpter Solar Services, I was responsible for providing preliminary quotes and preliminary designs for residential rooftop solar, field work roof measurements and shade studies, engineering drawings for final designs, product and material inventory, supporting the field crew with system installations, system inspections prior to commissioning, client relations communications, and system troubleshooting and repair.

From June 2022 through to November 2024, I worked for a national non-profit organization known as Elevate Energy. My time at Elevate Energy focused on program support and implementation of technical assistance programs offered by the U.S. Department of Energy (DOE) and administered by the National Renewable Energy Laboratory (NREL).[1] I oversaw and managed the delivery of deliverables in-part or full for the following programs:

- Communities Local Energy Action Program (C-LEAP)
- Energy to Communities Program: Expert Match (E2C)
- Buildings Upgrades Prize (Buildings UP)
- Energy Efficiency and Conservation Block Grant Cohorts

In addition to the programs above, I provided smaller project support to various Michigan-focused initiatives tied to buildings decarbonizations and climate strategies such as the Detroit Climate Strategy Plan, published in November of 2023, Ann Arbor's A²ZERO Home Energy Advisor (HEA) Program Pilot, and Elevate Energy's national

[1] On December 1, 2025 the U.S. Department of Energy renamed the National Renewable Energy Laboratory (NREL) the National Laboratory of the Rockies (NLR).

Justice40 Accelerator Cohort Program. I started with Elevate Energy as a Consulting Intern and then later advanced to the role of Senior Project Manager.

Q. Have you completed any trainings during your time at the Commission?

A. Yes, these include:

- INCE-USA Noise Control Engineering Course I – June 2026
- The Role of the Utility Regulator; National Association Regulatory Utility Commissioners (NARUC) – May 2025
- Photovoltaic and Energy Storage Systems Online Learning Series; National Fire Protection Association (NFPA) – March 2025
- Citizen Planner Online; Michigan State University Extension – February 2025
- Planning and Zoning Essentials; American Planning Association Michigan Chapter – December 2024
- Site Plan Review Training; American Planning Association Michigan Chapter – December 2024
- EGLE Renewable Energy Academy (REA) Hands-On Renewable Energy Siting Training – December 2024
- Renewable Energy Zoning & Permitting Essentials; EUCI – January 2025
- IPU Annual Regulatory Studies Program Fundamentals Course 2025; Institute of Public Utilities; Michigan State University – August 2025

Q. Have you assisted with other cases before the Commission?

A. Yes, I have provided testimony for the following MPSC cases:

U-21932 Acceleration Solar, LLC, PA 233 Certificate Case

U-21962 Washtenaw Solar, LLC, PA 233 Certificate Case

U-21956	Otisville PV I, LLC, PA 233 Certificate Case
U-22003	Rouget Road Solar Farm, LLC, PA 233 Certificate Case
U-22004	Headland Solar, LLC, PA 233 Certificate Case

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present Commission Staff's (Staff) positions on certain issues in the matter of Glacier Meadows Solar, LLC's (Applicant or Company) request for a certificate under PA 233, MCL 460.1221, *et seq.* I will refer to this request as "the application", which includes all exhibits, testimony, and other materials submitted by the Applicant to the instant docket in support of its initial request. The application requests a certificate for Glacier Meadows, which I will refer to as "the project" or "the facility" within my testimony. My testimony will primarily cover issues related to Site Plan and Engineering and Public Health and Safety. Specifically, my testimony addresses the required findings under MCL 460.1224(1), MCL 460.1225(1)(b)-(c), MCL 460.1225(1)(g), MCL 406.1225(1)(o), MCL 460.1226(8)(a)(i)-(iii)(v) which involved Staff's review of the following application exhibits and related direct testimony:

- Company Exhibit A-1.1, Planned Facilities, sponsored by Company witnesses Marla Korpar and August Christensen;
- Company Exhibit A-1.2, Area Land Use Information, sponsored by Company witness Korpar;
- Company Exhibit A-1.4, Construction Information, sponsored by Company witness Korpar;
- Company Exhibit A-3, Project Schedule, sponsored by Company witness Allyson Porta;
- Company Exhibit A-4.4, Summary of Agency Consultation, sponsored by Company witness Korpar;

- Company Exhibit A-7, Signal Mitigation Plan, sponsored by Company witness Kate Brennan;
- Company Exhibit A-10, Public Health and Safety, sponsored by Company witness Marla Korpar;
- Company Exhibit A-11, Dark Skies, sponsored by Company witness Brennan;
- Company Exhibit A-12, Transmission and Interconnection Agreements, sponsored by Company witness Korpar.
- Company Exhibit A-14, Conditions, sponsored by Company witness Korpar.

The subjects of my testimony, primarily those relating to public health and safety, are also addressed by Staff witness Travis Warner and Staff witness Houtan Moaveni. Staff witness Warner will testify to the Applicant's Fire Response Plan, Exhibit A-1.10, and Emergency Response Plan, Exhibit A-1.9, and witness Moaveni provides testimony relating to Exhibit A-1.7.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring the following exhibits:

- Staff Exhibit S-3.1, Company response to facility's level of engineering design
- Staff Exhibit S-3.2, Company response to implementing DarkSky's Five Friendly Lighting Principles during construction
- Staff Exhibit S-3.3, Company response to use of lighting during construction

Application Materials and Site Plan

Q. What is the standard under PA 233 related to submission of a site plan?

A. PA 233, Sec. 224(1) states that "[a] site plan required under section 223 or 225 shall meet application filing requirements established by commission rule or order to maintain consistency between applications."

Q. Has the Commission established application filing requirements that pertain to the Applicant's site plan?

A. Yes. The Commission's Application Filing Instructions and Procedures (AFIP) Section 7 requires the Applicant to provide Exhibits A-1.1 through Exhibit A-1.16, which includes a series of maps, detailed land use and explanatory information, construction information, descriptions of alternatives, changes, participating properties, complaint resolution and a series of technical reports. All these exhibits pertain to the site plan of the facility.

Q. Did the Company submit Exhibits A-1.1 through A-1.16 as a part of its application?

A. Yes. The Applicant submitted Exhibits A-1.1. through A-1.16 as a part of its application.

Q. In Staff's opinion, has the Applicant complied with the requirements for application materials pertaining to the site plan as stated by PA 233 Sec. 224(1)?

A. Yes, Staff's opinion is that, for items pertaining to the site plan, the Company submitted the exhibits that satisfy the AFIP requirements.

Q. What is Staff's understanding of the maturity of engineering design of the site plan?

A. In response to Staff's Seventh Discovery request, the Company indicates that the site plan, Exhibit A-1.1, reflects a conceptual 10% level design.[2] The Company further states that the site plan was not prepared by the project's engineering, procurement, and

[2] Staff Exhibit S-3.1

construction contractor since the project has not contracted one at the time of application filing. Because of this, the Company states its design is “considered “conceptual””. [3]

Q. Does the submitted site plan contain a description of the energy facility, consistent with the requirement of MCL 460.1225(c)?

A. Yes. Exhibit A-1.1 sheet C.001, C.002, and C.100 contain visual depictions of the facility with an overview of the facility boundary in relation to the County line and Township boundaries.[4,5,6] Exhibit A-1.2 Figure 1 visually depicts the facility in relation to Deerfield and Blissfield Townships.[7] Company witness Korpar provides additional description on the proposed nameplate capacity of the facility, land area usage, a percentage breakdown of the project footprint located within Blissfield and Deerfield Townships, and other details pertaining to the facility.[8]

Q. Did the Applicant submit material pertaining to the start of construction and the expected duration of construction consistent with MCL 460.1225(g)?

A. Yes. The Company discusses the development and construction schedule for the facility in Exhibit A-3. The Company provides a table with milestone project activity covering expected milestones from the execution of an Engineering Procurement and Construction (EPC) contract through to commercial operations.[9] The Company estimates that “[c]onstruction is anticipated to begin in the Quarter 2 (Q2 2027) and is anticipated to be

[3] Staff Exhibit S-3.1
[4] Company Exhibit A-1.1, Sheet C.001
[5] *Id.,* at Sheet C.002
[6] *Id.,* at Sheet C.100
[7] Company Exhibit A-1.2, p 4.
[8] Direct Testimony of Company witness Korpar, pp 5 - 10.
[9] Company Exhibit A-3, pp 1 – 2.

completed within 18 months."[10] Per the project schedule table in Exhibit A-3, the Company estimates the facility's commercial operation date (COD) occurring in Q3 2028.[11] Staff verified consistency with the anticipated COD listed in Exhibit A-3 with Exhibit A-12, the Transmission and Interconnection Agreement for the facility.

The Company details that the facility's Generator Interconnection Agreement (GIA) was set to lapse on December 31st, 2027, which positioned the Company to submit a Request for a Limited Waiver with the Federal Energy Regulatory Commission (FERC) for an extension of the facility's COD by up to an additional 24 months.[12,13] FERC granted the Company's request on May 22, 2025, allowing an extension from December 31st, 2027 to December 31st, 2029.[14] The anticipated COD presented by the Company in Exhibit A-3 is roughly a year-and-a-half sooner than the latest date the facility must achieve commercial operations by. With respect to the facility's GIA and COD, Company witness Korpar affirms FERC granted the above-discussed extension to the COD.[15]

Q. Did the Company provide details within the site plan exhibits on planned haul routes for equipment and materials for the construction of the facility?

A. Yes. Exhibit A-1.1, Sheet C.200 visually depicts the planned haul route for equipment and materials.[16] Company witness Korpar confirms that "heavy equipment routes" are shown in Exhibit A-1.4, which references Exhibit A-1.1, Sheet C.200 for the visual

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[10] Company Exhibit A-3, p 1.
[11] *Id.*
[12] Company Exhibit A-12, p 1.
[13] *Id.*
[14] *Id.,* at pp 143-145.
[15] Direct Testimony of Company witness Korpar, pp 19 - 20.
[16] Company Exhibit A-1.1, Sheet C.200.

details. Staff notes that Exhibit A-1.1 lacked any notes regarding whether coordination or guidance from the Lenawee County Road Commission (LCRC) is or would be incorporated into the presented planned haul routes. Company witness Korpar references Exhibit A-4.4 for details regarding consultations "carried out with federal, state, and local agencies, as well as owners of major facilities with existing infrastructure that overlap the Project Area".[17]

Q. Does Exhibit A-4.4 details on consultation with LCRC?

A. Yes. Upon review, consultation between the Company and the Lenawee County Road Commission has been in motion since March 24th, 2025.[18] Per the consultation, a Road Use Agreement with the Lenawee County Road Commission will be required for the facility.[19] The draft Road Use Agreement provides that "such Plans are not final and shall be revised so as to finalize them and take into account any need for changes as the Plans are finalized and conditions of the Designated Roads and Developer's construction plans change or become better known."[20] Based on review of the draft Road Use Agreement, Staff reasonably assumes that any final adoption of a planned haul route will be coordinated and reviewed by LCRC prior to the commencement of construction activities.

Q. Are there any conditions that Staff recommends the Commission adopt that pertain to public road use for the facility's construction?

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[17] Direct Testimony of Company witness Korpar, p 16.
[18] Company Exhibit A-4.4, p 22.
[19] *Id.*
[20] *Id.* at p 1744.

A. Yes, consistent with other active PA 233 cases, and in alignment with consultation from LCRC, Staff recommends that should the Commission chose to approve the certificate, that it also adopt amended language to Proposed Minimum Condition 21, which reads as follows:

> 21. The Applicant is required to enter into an agreement with the Lenawee County Road Commission regarding reimbursement for the repair and restoration of County roads modified or damaged during the construction process. If the Lenawee County Road Commission determines that such an agreement is not necessary, the Applicant must provide a letter to the docket in Case No. U-22044 signed by a representative of the County to verify this determination.

Q. Did the Company provide details within the site plan exhibits on underground infrastructure?

A. Yes. Exhibit A-1.4 details the facility's proposed construction and installation methods. For equipment buried below grade, the Company indicates that "[t]he [p]roject's preferred method for installing underground collection lines will utilize plowing to a depth of 4 feet."[21] The Company further specifies that "horizontal directional drilling (HDD) or other trenchless installation methods will be utilized to install underground collection lines when crossing existing utilities, roadways, and water resources to avoid surface disturbance."[22] For visual depiction of the underground collection lines, the Company refers to Exhibit A-1.1, site plan sheets C.301 – C.334.[23] The Company notes that depths for utility crossings under county roads and county drains will be determined through further consultation with the Lenawee County Road Commission and Lenawee County Drain Commission Office.[24]

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[21] Company Exhibit A-1.4, p 2.
[22] *Id.*
[23] Company Exhibit A-1.1, Sheet C.301 – C.334.
[24] Company Exhibit A-1.4, p 2.

Q. Are there any conditions that Staff recommends the Commission adopt that pertain to underground infrastructure?

A. Yes, consistent with other PA 233 cases, Staff recommends that, should the Commission choose to approve the siting certificate, it also adopt amended language to Proposed Minimum Condition 9, which reads as follows:

> 9. The Applicant is required to bury underground infrastructure to a minimum depth of 4 feet or as approved by the Commission as a condition to the siting certificate.

Staff notes that the Company, in Exhibit A-14, agrees to the proposed minimum condition number 9, agreeing to bury underground infrastructure to a minimum depth of 4 feet or as approved by the Commission as a condition to the siting certificate.[25]

Q. Does the Company address Proposed Minimum Condition No. 4, regarding mechanical completion reports?

A. Yes, the Company states its agreement to filing mechanical completion certificates for the facilities in the instant docket.[26]

Q. Does Staff have any recommendations regarding Proposed Minimum Condition No. 4, Mechanical Completion Report?

A. Yes. Should the Commission choose to grant the siting certificate, Staff recommends inclusion of the following amended condition language:

> 4. The Applicant is required to file a mechanical completion certificate for the facilities in the MPSC docket for Case No. U-22044.

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[25] Company Exhibit A-14, p 3.
[26] *Id.,* at p 2.

Q. Did the Applicant submit material pertaining to the effects of the proposed energy facility on public health and safety consistent with MCL 460.1225(1)(g)?

A. Yes. The submitted Exhibit A-1.7 (signal mitigation), Exhibit A-10 (public health and safety), and Exhibit A-11 (dark skies) all pertain to matters regarding public health and safety associated with the facility.

Signal Mitigation Plan

Q. What are the requirements for signal mitigation?

A. Section 6.3.7 of the AFIP and Section 225(1)(o) of PA 233 require that, "[i]f the energy facility is reasonably expected to have an impact on television signals, agricultural global positions systems, military defense radar, radio reception, or weather and doppler radio, a plan to minimize and mitigate that impact" must be a part of an application filed to the Commission.[27]

Q. Did the Company perform an analysis to determine whether the facility is reasonably expected to have an impact on television signals, microwave signals, agricultural global positioning systems (GPS), military defense radar, radio reception, or weather and doppler radio?

A. Yes, the Company performed a Signal Mitigation Analysis to understand potential impacts from the facility.[28] The analysis provided investigates the proximity of communication and broadcast towers and radar and navigational aids near the facility and investigates the potential impacts of signals resulting from the facility. The analysis demonstrates that there are no communication systems within 150 feet from the facility

[27] MCL 460.1225(1)(o)
[28] Company Exhibit A-7, pp 3 – 15.

fenceline, no broadcast signals reflection is expected due to the lack of TV or radio receivers located near the facility, radar and navigational aids were found beyond 2.5 miles from the facility site, and the height of communication towers are significantly greater than the height of the facility thus reducing the risk of signal obstruction.[29]

Q. Is the Applicant required to provide a plan to minimize and mitigate the impact from signals, consistent with the requirements under MCL 460.1225(1)(o)?

A. No. In Staff's opinion, given that the analysis provided in Exhibit A-7 demonstrates that the facility is not anticipated to impact television signals, microwave signals, agricultural global positioning systems, military defense radar, radio reception, or weather and doppler radio, the material and supporting testimony leaves Staff confident that the facility does not require a signal mitigation plan.

Public Health and Safety

Q. Please describe the scope of your review related to public health and safety.

A. I reviewed the Applicant's discussion of matters relating to effects on public health and safety related to the facility. The information relating to public health and safety is predominantly found in Exhibits A-1.1, A-7, A-10, A-11, and corresponding direct testimony of Company witness Schenk. I also reviewed the Company's responses to Staff's discovery requests relevant to these topics. I reviewed the submitted application materials against the requirements found within the Commission's AFIP, specifically AFIP sections 6.3.10(a)(1)(i)-(iii), 6.3.10(a)(2)-(3), and the standard set forth within MCL 460.1226(8).

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[29] *Id.*

Q. What is the standard under the law related to public health and safety?

A. PA 233, Sec. 226(7)(g) states that, to approve a siting application, the Commission must find that "[t]he proposed energy facility does not present an unreasonable threat to public health or safety." According to PA 233, Sec. 226(8), a facility complies with that requirement if it meets the detailed requirements of that section, which address setbacks, fencing, height limits, dark sky friendly solutions, and sound limits. For a solar energy facility, the applicable standards are found in PA 233, Sec. 226(8)(a)(i)-(v). I will discuss each of these requirements, except for noise, within the scope of my testimony below.

Setbacks

Q. What is the minimum setback distance for a solar facility under PA 233?

A. The applicable minimum setback distances for a solar facility are provided in MCL 460.1226(8)(a)(i). The descriptions and corresponding minimum distance requirements are presented in Table 1 below.

Table 1: Minimum Solar Facility Setback Distance Requirements

Setback Description	Setback Distance
Occupied community buildings and dwellings on nonparticipating properties	300 feet from the nearest point on the outer wall
Public road right-of-way	50 feet measured from the nearest edge of a public road right-of-way
Nonparticipating parties	50 feet measured from the nearest shared property line

Q. Has the Applicant demonstrated that the facility meets the minimum setback distance requirements?

A. Yes. Exhibit A-10 contains brief descriptions of the setback distances that facility complies with. For the perimeter fencing to the nearest point of the outer wall of occupied community buildings and dwellings on nonparticipating properties, the Company describes that a minimum 300-foot setback is applied.[30] For the perimeter fencing to public road right of way, the Company describes that a minimum 50-foot setback is applied.[31] For the perimeter fencing to the nearest shared property line, the Company asserts that the facility exceeds the minimum requirement of 50-foot setback by voluntarily applying a 150-foot setback from the perimeter fencing to the nearest shared property line.[32] The Company provides Exhibit A-1.1 for specific visual depictions of the required setbacks, along with visual depictions of voluntary setbacks specific to wetlands, streams, and the River Raisin.[33]

Q. Did Staff verify setback distances between occupied community buildings and dwellings, public road right-of-way, and nearest shared property lines of non-participating parties as shown in the Exhibit A-1.1, Planned Facilities?

A. Yes. Exhibit A-1.1, Sheets C.301 through C.334 provide visual information regarding the proposed conditions of the facility layout, including all the applied setbacks. These site plan sheets showcase key elements necessary to verify setback distance markers for shared property lines between participating parcels and non-participating parcels, the facility's perimeter fencing line, public road right-of-way, and clear distinctions of occupied structures and non-occupied structures.[34]

To validate compliance with the standards set forth in the filing requirements, Staff performed a separate analysis of setbacks by using the scale shown on Sheets C.301

[30] Company Exhibit A-10, p 1.
[31] *Id.*
[32] *Id.*
[33] *Id.*
[34] Company Exhibit A-1.1 Sheet C.301 – C.334.

through C.334, then using Adobe Acrobat's "Measuring tool" feature and inputting the corresponding scale reference provided. Staff verified once more that setback distances (occupied community buildings and dwellings, public road right-of-way, and nearest shared property lines of non-participating parties) are each in compliance with MPSC and statutory requirements as is presently shown in Exhibit A-1.1. Staff also confirms that the setback distance from the perimeter fencing to the nearest shared non-participating property line is well above the minimum 50-foot requirement. Staff observed mostly consistent application of the 150-foot voluntary setback to nonparticipating properties as described by the Company.

Staff notes that final compliance with statutory requirements pertaining to setbacks is to be demonstrated via the Applicant's Completion Report, in accordance with Section 8.1 of the AFIP. Based on what's provided for in AFIP section 8.1, the Completion Report is required to be submitted to the Commission in the instant docket prior to commencement of operations for the facility.

Q. Does Staff have an opinion regarding as-built surveys?

A. Yes, regarding as-built surveys, Section 8.2 of the AFIP requires that, within 90 days of achieving commercial operation date, the Company must submit a letter in the instant case docket confirming that an ALTA/ACSM (American Land Title Association/American Congress on Surveying and Mapping) as-built survey was submitted to the ALUs. Staff proposes as a new condition that the as-built survey also be filed to the MPSC docket in the instant case in order to establish a complete record of the project. Accordingly, Condition No. 22 is proposed as follows:

22. Within 90 days of achieving the project Commercial Operation Date (COD), the Applicant must submit an ALTA/ACSM (American Land Title Association/American Congress on Surveying and Mapping) as-built survey to the docket in Case No. U-22044, as well as a letter in the same docket that confirms the same as-built survey was submitted to the Affected Local Unit(s).

Fencing

Q. What are the fencing requirements for a solar energy facility per PA 233, Section 226(8)(a)(ii)?

A. According to Section 226(8)(a)(ii) of PA 233, fencing must comply with the latest version of the National Electric Code (NEC) or any applicable successor standard approved by the Commission as reasonable and consistent with the purpose of this subsection.[35]

Q. Has the Applicant demonstrated that the facility meets fencing requirements?

A. Yes. Staff reviewed Exhibit A-1.1 for the referenced details pertaining to fencing. These details are found on Sheet C.502 and C.505 and are consistent with what the Company describes in Exhibit A-10.[36]

In Exhibit A-10, the Company describes that the facility has been designed to meet the requirements of the National Electric Code (NEC).[37] Specifically, the Company states that fencing design adheres to NEC Article 691.11 and Article 691.6.[38] For details regarding grounding, the Company states "the [p]roject will conduct a grounding study to ensure the Project meets the criteria set forth in NEC Article 250.190. The grounding study will evaluate equipment specifications, onsite soil conditions, and expected

[35] MCL 460.1226(8)(a)(ii).
[36] Company Exhibit A-1.1, Sheet C.502.
[37] Company Exhibit A-10, pp 1-2.
[38] *Id.*

operating parameters (i.e., voltage). The [p]roject will be designed with selective grounding conductor materials and sizes based on the results of the grounding study."[39]

Staff's understanding of what the Company has provided for the facility regarding fencing requirements is that it is in accordance with the NEC; therefore, Staff's opinion is that the project fencing as presented in the site plan and other application materials are in compliance with PA 233 statutory requirements.

Height Limits

Q. What are the height requirements for a solar energy facility per Section 226(8)(a)(iii) of PA 233 Section 226(8)(a)(iii)?

A. Section 226(8)(a)(iii) requires that solar panel components do not exceed a maximum height of 25 feet above ground when the arrays are at full tilt.[40]

Q. Has the Applicant demonstrated that the facility meets the statutory height limits?

A. In Staff's opinion, yes. Exhibit A-10 provides details that solar panels are "The maximum height of the Project's solar array at full tilt will not exceed 25 feet above ground."[41] The Company refers to Exhibit A-1.1 for more design details regarding planned height of the solar panels at full tilt. These details are found on Sheet C.503 of Exhibit A-1.1, where the Company provides a side-facing view of the solar array height. Key details contained here include the maximum height of the array at full tilt as 12 feet, which is well below the statutory limit of 25 feet.[42] With the material provided and shown in Exhibit A-10 and

[39] *Id.*
[40] MCL 460.1226(8)(a)(iii)
[41] Company Exhibit A-10, p 2.
[42] Company Exhibit A-1.1, Sheet C.503.

Exhibit A-1.1, Sheet C.503, Staff's opinion is that the application demonstrates statutory height compliance.

<u>Dark Skies</u>

Q. Has the Applicant provided a plan to comply with dark sky-friendly lighting solutions for the facility?

A. Yes. In Exhibit A-11, the Company states "The Project will minimize glare and light trespass by adhering to DarkSky International's Five Principles for Responsible Outdoor Lighting to the extent practicable."[43] The principles, as presented by the Company, are as follows:

1. Useful lighting
2. Targeted Lighting
3. Lighting Level
4. Controlled Lighting
5. Warm Colored Lighting[44]

Q. Did Staff ask the Company any questions regarding its lighting plan?

A. Yes. Although Company witness Brennan states that the facility's lighting use is "designed to avoid unnecessary lighting of non-essential areas during construction and operation,"[45] Staff notes that the submitted Exhibit A-11 Dark Skies plan lacked meaningful discussion regarding lighting use during the construction phase of the facility. To seek further understanding, Staff asked the Company to provide details regarding the applicability of the Five Principles for Responsible Outdoor Lighting during the Project's

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[43] Company Exhibit A-11, p 1.
[44] *Id*.
[45] Direct Testimony of Company witness Brennan, p 13.

construction phase. In response to Staff's Seventh Discovery Request, the Company states that it "will implement DarkSky International's five dark sky friendly principles during the construction phase of the facility."[46] Further, when asked about the use of lighting during construction, the Company responded that temporary lighting is expected for the "early morning and late afternoon hours and mainly around the Project's site office and laydown areas".[47]

Q. Has the Applicant demonstrated that the facility meets the requirements pertaining to Dark Skies Plans?

A. In Staff's opinion, yes. With the material present in Exhibit A-11, and the additional information pertaining to the use and implementation of dark sky friendly lighting solutions during the construction of the facility, Staff's opinion is that the statutory requirements for lighting are met by the Company.

<u>Overall Conclusions and Final Recommendation</u>

Q. Please summarize your overall conclusions and recommendations to the Commission.

A. Staff recommends the Commission make the following determinations.

- The Applicant has demonstrated compliance with the statutory requirements on anticipated impacts to signals and signal mitigation (MCL 460.1225(1)(o)).
- The Applicant has demonstrated compliance with the minimum setback requirements in accordance with MCL 460.1226(8)(a)(i).

[46] Staff Exhibit S-3.2
[47] Staff Exhibit S-3.3

- The Applicant will submit an ALTA/ACSM (American Land Title Association/American Congress on Surveying and Mapping) as-built survey in the instant case docket, as well as a letter in the same docket that confirms the same as-built survey was submitted to the Affected Local Unit(s).
- The Applicant has demonstrated compliance with fencing requirements (MCL 460.1226(8)(a)(ii)).
- The Applicant has demonstrated compliance with height limit requirements (MCL 460.1226(8)(a)(iii)).
- The Applicant has demonstrated compliance with dark sky requirements (MCL 460.1226(8)(a)(v)).

Q. What is Staff's recommendation on the topics addressed in this testimony?

A. For the reasons discussed in this testimony, Staff recommends that, if the Commission grants the application and issues a certificate under PA 233, it do so with the additional conditions pertaining to the areas covered in this testimony, as recommended.

Q. Does this conclude your direct testimony?

A. Yes.

S T A T E O F M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of	)	
Glacier Meadows Solar, LLC	)	
for a Renewable Energy or Storage	)	Case No. U-22044
Siting Certificate to construct a solar	)	
energy facility.	)	

QUALIFICATIONS AND DIRECT TESTIMONY OF

GREG FRER

ON BEHALF OF

MICHIGAN PUBLIC SERVICE COMMISSION STAFF

July 20, 2026

QUALIFICATIONS OF GREG FRER
CASE NUMBER U- 22044
PART I

Q. Please state your name and business address for the record.

A. My name is Greg Frer and my business address is 1400 Weston Way, West Chester, PA 19380.

Q. By whom are you employed and in what capacity?

A. I am employed by Weston Solutions, Inc (Weston) as a cost estimator.

Q. Would you please outline your educational background?

A. I have certifications in Occupational Safety and Health Administration 30, EM 385-1-1, various one day OSHA certifications, and Army Corps of Engineer's Construction Quality Management (CQM) certification.

Q. Would you please outline your professional experience?

A. I began as an electrician at Seymour Johnson Air Force Base (AFB) as a contractor in 2001. In 2002, I was employed by a national general contractor that performs JOC (Job or Contracting) for military installations where I held positions as Project Manager, Construction Estimator, Safety Officer, and Quality Control Specialist in the Washington, DC area for seven years. Between 2009 and 2023, I performed the same duties with various firms in Florida. Upon joining Weston in 2023, I became an estimator for all phases of design with a specialty in industrial, environmental and wastewater projects. I have experience with all phases of cost estimation for new construction, repair, maintenance, and service in residential, commercial, and industrial sectors.

Q. How are you associated with the matter of the application of Glacier Meadows Solar, LLC for a Renewable Energy Siting Certificate, Michigan Public Service Commission (the MPSC or Commission) Case No. U-22044?

A. Weston Solutions, Inc. was selected by the MPSC as a vendor to provide subject matter expertise related to decommissioning for Case No. U-22044. Based on my qualifications, Weston selected me to support the cost estimation component of decommissioning.

Q. Have you previously presented testimony before the Commission or assisted with other cases before the Commission?

A. Yes. I provided testimony related to decommissioning for the case of Washtenaw Solar LLC, Case No. U-21962.

Q. Please define any terms you use in this testimony.

A. In this testimony:

(1) "AFIP" means the Commission's Application Filing Instructions and Procedures

(2) "Applicant" and "Company" mean Glacier Meadows Solar, LLC.

(3) "MDARD" means Michigan Department of Agriculture & Rural Development

(4) "PA 166" refers to the Michigan Farmland and Open Space Preservation Program

(5) "PA 230" Refers to Senate Bill 277 of 2023

(6) "PA 233" means Public Act 233 of 2023

(7) "Project" or "Facility" means the Glacier Meadow Solar energy facility proposed under PA 233.

(8) "Record" means the application and attachments including Exhibits A-13.1 through A.13.3, any amendments, as well as responses to Staff discovery (Exhibit S-4.1), and other materials filed in this docket to the extent referenced.

(9) "DDCE" means Detailed Decommissioning Cost Estimate

Q. Please identify the exhibits that fall under your testimonial purview.

A. My testimony addresses matters related to Applicant's Exhibit A.13.2, Detailed Decommissioning Estimated Costs (DDCE) in the matter of Glacier Meadows Solar, LLC's application for a solar energy facility certificate.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes, I am sponsoring standalone Exhibit S-4.1, which includes Company responses to Staff's ninth discovery request pertaining to Exhibit A-13.2.

Q. What is the purpose of your testimony regarding Exhibits A-13.2 DDCE?

A. The purpose of my testimony is to (1) summarize my review of the Applicant's DDCE (2) describe the governing PA 233 standards and the Commission's AFIP requirements, and (3) recommend certificate conditions to ensure the Commission holds drawable financial assurance adequate to complete decommissioning and site restoration.

Q. Please describe your review of the Exhibit A-13.2, DDCE.

A. I reviewed the Company's submission of the DDCE, drafted discovery questions and reviewed Company's responses, specifically within Staff's ninth discovery request to the Applicant, Exhibit S-4.1. I reviewed these materials against the requirements laid out in the Commission's Application Filing Instructions and Procedures (AFIP), primarily AFIP Section 6.3.13 A-13.2 (iii).

Q. Did the Company provide an explanation of how insurance costs were accounted for in the cost estimate or explain why such costs should not be included?

A. The DDCE did not provide a line-item for insurance costs. In the Company's response to Staff's ninth discovery request, item 15, the Company states insurance costs are accounted for in the line item "soft costs"[1] and the total of all soft costs are included in Table 3. The Company also states that soft costs are combined with mobilization costs and presented as a line item in Table 1.[2] However, the AFIP requires "[d]etailed cost estimates for… liability insurance."[3] Consequently, I have proposed a new subitem to proposed minimum condition (PMC) No. 2, introduced later in this testimony, which addresses this requirement.

Q. Did the Company provide project quantities associated with each unit rate in the DDCE?

A. The Company did not include project quantities for each unit rate. In its response to Staff's ninth discovery request, item 16, the Company states it provided, in Table 4, labor cost assumptions, transportation rates, and rates for scrap prices, recycling prices and landfill prices in $/ton and states the project quantities used as the inputs to the decommissioning calculations are correlated to the project quantities identified in Exhibit A-1.1.[4]

There is no mechanism by which to correlate the unit rates for the items in Table 4 (i.e., labor rates, landfill prices) with the project quantities identified in Exhibit A-1.1 Sheet C.005 (i.e., tree clearing and access road quantities). The Company did not provide the decommissioning cost estimate model input parameters as requested. Given that there was insufficient information provided in Exhibit A-1.1 to validate the costs provided in the Tables, including, but not limited to, the weights, masses and volumes used for cost estimation, I have recommended a new subitem (l) to PMC No. 2, introduced later in this testimony, which would require decommissioning costs model inputs.

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[1] Exhibit S-4.1, pp 2.
[2] *Id*.
[3] AFIP, p 23.
[4] Exhibit S-4.1, pp 3.

Q. Are costs included to address potential remediation of constituents of concern in the event panels are damaged in the course of commissioning, use, or decommissioning and cause soil to not be returned to its original useful condition?

A. The Company did not include costs associated with soil assessment or potential remediation that may be necessary to return soil to its original condition in the DDCE. I believe the potential for contamination could be present depending on the panel manufacturer, panel conditions during their operational life, and the length of time broken panels remain on-site. Given the potential expenses involved with remediation, I believe it is prudent that soil assessment and decontamination be conducted as outlined in the testimony of Staff witness Jonathan Kroeker and the corresponding Proposed Condition subitem PMC No. 2.d.viii. See PMC No. 2.j later in my testimony for the requirement to include the associated soil assessment and decontamination costs in the decommissioning costs.

Q. Did the Company include costs for decommissioning of the electrical project substation, gen-tie lines, the Operation and Maintenance (O&M) Building or access roads?

A. No, the decommissioning plan states that the applicant expects that the access roads, substation, gen-tie lines, and O&M Building, will remain "if the property owner or utility owner has identified and approved a plan for in place re-use". However, this expectation is predicated on landowner or utility owner acceptance and these agreements, and plans for in place re-use have not yet been finalized as described in Staff witness Kroeker's testimony. As a result, the decommissioning costs at this time should include the costs associated with decommissioning the substation, O&M Building and access roads. See PMC No. 2.j later in my testimony.

Q. Did the Company adjust the decommissioning cost estimate by subtracting the salvage value as allowed by PA 233?

A. Yes, the decommissioning cost estimate subtracted the estimated salvage value from the project. However, as described in the testimony of Staff witness Kroeker, the majority of the project is located on PA 116 land. For facilities on such land, salvage value must not be used to lower the amount of required financial assurance. Consequently, either two separate financial assurances would be required (one to satisfy PA 116/PA 230 and one to satisfy PA 233), or the decommissioning cost estimate could be revised to remove the salvage credit for those facilities, so that one financial assurance could be submitted to satisfy both MDARD and MPSC standards.[5] Proposed Condition No. 29 from Staff witness Kroeker addresses this issue, inclusive of updates to the decommission cost estimate and financial assurance.

Q. Within its proposed conditions, has the applicant agreed to execute the decommissioning agreement and required financial assurance as described by PMC 16 within the AFIP?

A. Yes, in Exhibit A-14, the Company provides a commitment to each of these requirements.[6]

Q. Do you have recommendations relating to your review?

A. I recommend the following Proposed Conditions to address the findings from my review. Note that all of the items are provided in Staff Exhibit S-2.1 and S-2.2, and the Proposed Condition 2 items are also reiterated by Staff witness Sarah Mullkoff.

1. Modified PMC No. 16 - The Applicant is required to execute the decommissioning agreement approved by the Commission. The Applicant is required to demonstrate that

[5] Per AFIP 8.3.2, "Applicants with facilities which include PA 116 farmland may, in consultation with MDARD, provide financial assurance pursuant to PA 233 which satisfies the requirements of both PA 116 and PA 233."
[6] Company Exhibit A-14, pp 4-5.

financial assurance has been acquired and will be maintained throughout the operational life of the facilities, as outlined in the decommissioning agreement.

2. PMC 2.j – The following costs are required to be included as line items in the decommissioning cost estimates:

i. Costs associated with insurance (bond and commercial liability, property, workman's compensation and environmental).
ii. Costs associated with soil assessment and remediation.
iii. Costs associated with decommissioning of the substation, gen-tie lines, O&M Building and access roads.

3. PMC No. 2.l – The Applicant is required to submit the decommissioning cost estimate model input parameters with the revised decommission cost estimate required by Proposed Minimum Condition No.2.j.

Q. Does this conclude your direct testimony?

A. Yes.

S T A T E   O F   M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of GLACIER MEADOWS SOLAR, LLC for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.	))))))	Case No. U-22044

QUALIFICATIONS AND DIRECT TESTIMONY OF

AUSTIN N. GLASS, PH.D.

MICHIGAN PUBLIC SERVICE COMMISSION

July 20, 2026

QUALIFICATIONS OF AUSTIN N. GLASS, PH.D.
CASE NUMBER U- 22044
PART I

Q. Please state your full name and business address for the record.

A. My name is Dr. Austin N. Glass, and my business address is 7109 West Saginaw Highway, Lansing, Michigan 48917.

Q. By whom are you employed and in what capacity?

A. I am employed by the Michigan Public Service Commission (MPSC, or Commission) as a Senior Public Utilities Engineer in the Renewable Energy and Storage Siting (RESS) Section of the Energy Operations Division.

Q. Please describe your educational background.

A. I hold a Doctor of Philosophy degree in Climate and Space Sciences and Engineering from the University of Michigan – Ann Arbor, with a Certificate in Science, Technology, and Public Policy. I also earned a Bachelor of Science in Engineering and a Master of Science degree from the University of Michigan – Ann Arbor.

Q. Please describe your professional experience.

A. Prior to my time at the MPSC, I worked at the Public Service Commission of Wisconsin (PSCW), first as a Clean Energy Innovator Fellow of the U.S. Department of Energy, and then as a Senior Engineer in the Division of Energy Regulation and Analysis.

As a Fellow, I conducted multiple research projects and supported creation of the Wisconsin 2024-2030 Strategic Energy Assessment through expansion planning modeling in the Electric Generation Expansion Analysis System software under carbon-constrained future scenarios. I also actively monitored developments in regional markets, by analyzing the impacts of changing resource accreditation methodologies by the Midcontinent Independent System Operator (MISO) on the capacity positions of Wisconsin's major utilities. To do so, I used historical Generator Availability Data

System data from Wisconsin units to calculate their new expected seasonal accreditation under the Direct Loss of Load methodology.

As a Senior Engineer at the PSCW, I worked as case coordinator and/or engineer on a myriad of dockets in which applicants were seeking siting and construction authorization, including through Certificates of Public Convenience and Necessity, for large-scale electric construction projects. My portfolio included both generation and transmission projects. The generation projects I worked on included over 2 GW of large-scale solar and battery installations, non-battery energy storage, and traditional fossil generation including reciprocal internal combustion engine (RICE) and combustion turbine (CT) gas facilities. The transmission projects I worked on included over $3 billion of projects proposed and actively under construction, primarily at 138 kilovolts (kV) and 345 kV.

I began work in my current position in November of 2024. Throughout the early part of my tenure on the team, I participated in training and preparation to receive applications for renewable energy or storage certificates. The RESS Section received its first case in June of 2025; I have been involved in every case before the RESS Section since that time. The primary focus of my work is project impacts, including farmland and land use impacts.

Q. Have you previously testified before the Commission?

A. Yes, I have previously provided testimony in the following MPSC Cases, for the following projects:

- U-21932 (Acceleration Solar)
- U-21962 (Washtenaw Solar)

- U-21956 (Otisville Solar)
- U-22003 (Rouget Road Solar)
- U-22004 (Headland Solar)

I have also filed testimony in docket 137-CE-208, the Silver Maple Solar Interconnection Project, before the PSCW.

Q. Have you completed any trainings during your time at the Commission?

A. I have, including:

- Fundamentals of Utility Law; National Association of Regulatory Utility Commissioners (NARUC) / Regulatory Training Institute (RTI); November 2024
- EGLE Renewable Energy Academy (REA) Hands-On Renewable Energy Siting Training; Department of Environment, Great Lakes, and Energy (EGLE) REA; December 2024
- Planning and Zoning Essentials; American Planning Association, Michigan chapter; December 2024
- Renewable Energy Zoning and Permitting Essential Principles; EUCI (formerly Electric Utility Consultants, Inc.); December 2024
- Site Plan Review Training; American Planning Association, Michigan chapter; December 2024
- MI Citizen Planner; Michigan State University Extension; February 2025
- Michigan Pollinator Habitat Planning Scorecard for Solar Sites Certification Program; Michigan State University Extension; March 2025

- Solar on Brownfields and Underutilized Lands Webinar Series; International City/County Management Association & American Planning Association; March 2025
- Photovoltaic and Energy Storage Systems Online Learning Series; National Fire Protection Association (NFPA); March 2025
- Project Management Essentials for the Unofficial Project Manager; State of Michigan Civil Service Commission; April 2025
- Land Lease Agreements for Renewable Energy Projects; EUCI; May 2025

Purpose

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present Commission Staff's (Staff) positions on certain issues in the matter of the request of Glacier Meadows Solar, LLC (Applicant or Company) for a certificate under Public Act 233 of 2023 (PA 233), MCL 460.1221, *et seq.* I refer to this request as "the application", which includes all direct testimony and associated exhibits submitted to the docket by the Company in support of that request on February 27, 2026. The application requests a certificate for the proposed Glacier Meadows Solar project in Blissfield and Deerfield Township, Lenawee County, as further described by Staff witness Sarah Mullkoff, which I refer to as "the project."

In my direct testimony, I primarily cover topics related to project impacts, including land use and farmland. I specifically address the required findings under MCL 460.1226(6) in part and MCL 460.1226(7)(f), as well as Staff's review of certain application exhibits, including the associated application narrative, direct testimony, and the Company's responses to discovery, regarding the following:

- Exhibit A-1.3, Explanatory Information, sponsored by Company witnesses Kate Brennan and Marla Korpar;
- Exhibit A-1.5, Alternatives, sponsored by Company witness Korpar;
- Exhibit A-1.6, Changes, sponsored by Company witness Korpar;
- Exhibit A-9, Farmland, sponsored by Company witness Korpar;
- Exhibit A-14, Conditions, sponsored by Company witness Korpar, with respect to Proposed Minimum Conditions (PMCs) 2 in part, 7, and 8.

Q. Are you sponsoring any exhibits as part of your testimony?

A. Yes, I am sponsoring the following exhibits:

- Exhibit S-5.1: Staff's Second Discovery Request to Company and Responses, including Supplemental Responses and Attachment, Items 1 and 2
- Exhibit S-5.2: Staff's Third Discovery Request to Company and Responses, including Attachment, Items 1 through 16
- Exhibit S-5.3: Staff's Fourth Discovery Request to Company and Responses, Items 1 through 4
- Exhibit S-5.4: Staff's Seventh Discovery Request to Company and Responses, Items 1 through 6
- Exhibit S-5.5: Staff Farmland and Land Use Calculations
- Exhibit S-5.6: "The potential land requirements and related land use change emissions of solar energy," *Scientific Reports*, 2021.

Land Use Impacts

Q. Please describe the scope of your review related to land use impacts.

A. I reviewed the Company's discussion of the impacts of the project on land use within the application, primarily in Exhibit A-1.3, Explanatory Information, A-1.5, Alternatives, associated direct testimony, and the Company's responses to Staff discovery. I reviewed these materials against the standard established by the first sentence of MCL 460.1226(6), which requires that the Commission consider "the impact of the proposed facility on local land use, including the percentage of land within the local unit of government dedicated to energy generation" and "feasible alternative developed locations." I also reviewed the materials against the requirements laid out in the

Commission's Application Filing Instructions and Procedures (AFIP), primarily AFIP Sections 7.3 and 7.5.

Q. Please summarize Staff's approach to analyzing the project's impacts on local land use.

A. The entirety of the project area is zoned for Agricultural use in both Blissfield and Deerfield Townships.[1] Staff's opinion is that the use of agricultural areas is appropriate for a solar project if the following are established, as required by statute: (1) that the impacts of the project on adjacent and nearby uses are minimized and mitigated; (2) that developed alternatives have been considered and found infeasible; (3) that the project impacts are reasonable considering the percentage of land within the local units of government dedicated to energy generation; and (4) that the project does not unreasonably diminish farmland, including by having appropriate decommissioning procedures. I will address each of these subjects within my testimony.

Impacts on Adjacent and Nearby Land Uses

Q. What are the existing land uses adjacent to and nearby the project?

A. The maps submitted in Exhibit A-1.2 depict nearby land uses, which are predominantly agricultural, residential, and industrial uses.[2] The Company specified in Exhibit A-1.3 that there are no schools, civic facilities, recreational facilities, or commercial areas within 1,000 feet of the project.[3] Therefore, regarding impacts on adjacent and nearby land uses, it only remains to analyze the Company's discussion of the prospective impacts of the project on residential uses.

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[1] Exhibit A-1.2, p 12.
[2] *Id.* at pp 9-11.
[3] Exhibit A-1.3, p 7.

Q. What is Staff's position on the Company's efforts to minimize the prospective impacts of the project on residential land uses?

A. The Company discussed several potential impacts of the project on residential land uses. Regarding glare, traffic, solid waste impacts, and fencing (with respect to land use impacts), the Company's discussion of why the project's prospective impacts are minimal is reasonable, and its proposed steps to mitigate these impacts are appropriate without amendment or additional conditions. Additionally, the Company has proposed setbacks from non-participating properties that are 150 feet from the property line, three times the PA 233 required setback of 50 feet. This setback distance improves the outlook of the project's impacts on adjacent residential properties from the outset. Impacts from project sound will be discussed by Staff witness Houtan Moaveni. Impacts on stormwater will be discussed by Staff witness Katherine Krupp. I will discuss the project's visual impacts in the context of land use impacts.

<u>Project Impacts – Visual Impacts, Screening</u>

Q. How did Staff approach its review of the Company's proposed screening?

A. The Company's proposed screening for its project is described primarily in its application,[4] which Staff reviewed to determine the extent of the Company's efforts to minimize impacts on local land uses, especially adjacent land uses.

Q. What is Staff's high-level review of the Company's planned screening?

A. The Company's discussion of its planned screening includes its proposed screening layout and locations.[5] In addition to vegetative screening, the Company proposes

[4] Exhibit A-1.3, pp 7-8.
[5] Exhibit A-1.1, Sheet nos. C.202, C.309, C.317, C.323, C.506.

allowing neighboring non-participating residences to instead receive a one-time payment in lieu of screening.[6]

Q. Are the Company's plans for screening consistent with Staff's expectations?

A. In general, the Company's proposed screening layout, and its payment in lieu of screening option, are consistent with Staff's understanding of typical practice in utility-scale solar projects. However, the Company's screening plans deviate from Staff's expectations in two significant ways. Firstly, to Staff's understanding, the Company proposes vegetative screening in only two locations across its entire project area. And secondly, the Company's comparison of its planned screening requirements with local ordinance screening standards is limited at best.

Q. In what two locations does the Company propose screening?

A. The Company proposes vegetative screening near its substation, as portrayed in Exhibit A-1.1, Sheet numbers C.317 and C.323, and near one adjacent non-participating property owner who specifically requested screening, as portrayed in Exhibit A-1.1, Sheet number 309 and as discussed in Exhibit A-4.3, page 2.

Q. Is this level of screening typical for large-scale solar facilities in Michigan?

A. No, it is far less screening than is typically used for facilities of this type in Michigan.

Q. What screening methodology is typical for facilities of this type?

A. Researchers at the Graham Sustainability Institute at the University of Michigan have created a database that lists all the local ordinances in Michigan under which renewable energy projects were successfully permitted between 2018 and 2024.[7] The database also

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[6] Exhibit A-1.3, p 6.

[7] University of Michigan Graham Sustainability Institute local ordinance catalog, including sample screening ordinance language

includes template screening ordinance language.[8] Many of the examples, and the template itself, require screening between participating property and every non-participating property that has project equipment within view.[9] In my experience, this is also consistent with screening typically proposed at state-level siting processes, including those in Michigan.

Q. How does the Company's approach for the project in the instant case differ from that standard?

A. The Company's approach for the project starts without any planned screening whatsoever, except around the project substation. From there, the Company offers to "attempt to work on vegetative screening plans with [adjacent non-participating landowners] who express interest."[10]

Q. Aside from variations in professional methodology, what other reasons might there be for the lack of proposed screening for the project?

A. The Company notes in its application that an official from Deerfield Township, one of the ALUs for this project, expressed concerns about screening during a meeting of the Township's Planning Commission.[11] This apparently informed the Company's hesitation to propose significant screening for the project.[12] Staff reviewed the Company's provided recording for the planning commission meeting, but disagrees with the Company's characterization that "the Project received feedback from the Chair of the Deerfield Township Planning commission indicating that screening was not deemed as effective as

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[8] *Ibid.*
[9] *Ibid.*
[10] Exhibit A-1.3, p 4.
[11] *Id.*, at p 5.
[12] *Ibid.*

proper mowing and weed control."[13] Staff fails to see why the need for good vegetation management procedures implies reduced importance of screening. Staff understands that these issues may have been previously conflated, however, Staff views these matters – vegetation management and vegetative screening – as being related, but each individually important.

Q. What is the current status of the Company's proposed vegetation management procedures?

A. In response to Staff discovery, the Company provided draft vegetation maintenance plans.[14] The plans address maintenance, including through mowing and weed control, and the Company specifically notes that "intensive maintenance is anticipated during the first three to five years until sitewide vegetation has been sufficiently established."[15] In Staff's view, the Company's plans appear to be reasonable for this stage of project development. The Company should continue to develop the plans consistent with the direction indicated by its draft; I will present recommended condition language below that would require submission of the final plan to the docket in the instant case.

Q. Do those vegetation management plans obviate the importance of vegetative screening?

A. No. Groundcover management and vegetative screening are both key mechanisms through which the developer reduces the visual impact of the facility on adjacent and nearby local land uses and on farmland. These mechanisms work in tandem, neither obviating the other, because they work to address different visual and farmland impacts of the project. Groundcover management is important for reasons including preservation

[13] *See* recording linked in Exhibit A-4.2, p 5; segment begins at time stamp 1:09:11.
[14] Exhibit S-5.1, pp 4-29.
[15] *Id*. at p 2.

of topsoil; drainage management; and continuity of green spaces, enhancing views of the project *area*. Vegetative screening, on the other hand, acts to disrupt views of the project *facilities*, which may otherwise be seen by adjacent non-participating landowners as an unwanted disruption of their rural vista. Even the Company's limited proposed screening plans recognize this purpose, through its (otherwise unprompted) proposal of screening for the project substation.

Q. Considering its opt-in approach to screening, does the Company propose to proactively engage with landowners to gauge their interest in screening other portions of the project facilities?

A. No, it does not. In response to Staff discovery, the Company indicated that it has no plans to proactively conduct further outreach to adjacent landowners to determine their interest in screening.[16] The Company suggests that the Notice of Hearing, which provided general contact information for the Company and awareness of the start of the Commission's process, should have given community members sufficient awareness of the project to afford them the agency to opt in to planned screening. Failing this, the Company also indicates that adjacent landowners "are welcome to come discuss additional vegetative screening needs" with their project representative at a local office for the project, to be established by the Company at a later date.[17]

Q. Does Staff think this outreach strategy is satisfactory?

A. No. The Company's screening approach, requiring community members to proactively contact the Company in order to have visual impacts minimized, is not aligned with

[16] Exhibit S-5.2, pp 4-5.
[17] *Id.*, at p 5.

Staff's understanding of the requirements of PA 233 or with common and appropriate industry practice. Staff does note, however, that the Company "is willing to consider reasonable additional conditions regarding the method and timing for outreach to adjacent non-participating landowners with respect to screening if necessary for issuance of a certificate for the project."[18]

Q. In Staff's view, is such a condition necessary for issuance of a certificate for the project?

A. Yes. Staff accepts the Company was attempting to be responsive to local input, however Staff does not agree that local hesitation regarding screening justifies the Company's proposed "opt-in" approach to screening. If the Company is going to implement such an approach, in Staff's view, the Company should be required to conduct at least one round of proactive outreach prior to the commencement of construction to make adjacent non-participating landowners specifically aware of their screening options. Such outreach would be more limited in scope than the Notice of Hearing, which contained no information specific to screening, and should ensure that community members have the information they need about this topic to get in contact with the project. I will describe Staff's specific proposed language to that effect below.

Q. Please describe the Company's comparison of its planned screening requirements with local ordinance screening standards.

A. Having started with the baseline of minimal screening, based on what it interpreted as tepid feedback from Deerfield Township, the Company's comparison of its screening plans with local ordinance language is understandably limited. However, consistent with

[18] *Ibid.*

Staff's discussion of the importance of screening above, Staff also undertakes a more detailed comparison with local standards.

Q. Are local ordinances preempted by a certificate under PA 233?

A. Possibly, yes. MCL 460.1231(3) states that "[i]f a certificate is issued, the certificate and this part preempt a local policy, practice, regulation, rule, or other ordinance that prohibits, regulated, or imposes additional or more restrictive requirements than those specified in the commission's certificate."

Q, Why did Staff conduct a detailed review for consistency with local ordinance screening requirements?

A. Staff understands that a local ordinance's requirements, particularly those related to screening, express a certain degree of local preference. Staff's goal is alignment with local preferences whenever reasonable, to support the minimization of impacts on adjacent and nearby local land uses.

Q. Which local ordinance standards are relevant to the planned screening for the proposed project?

A. The Company's application contains a copy of the Deerfield Township ordinance related to utility-scale solar facilities, which specifies standards for screening.[19] In response to Staff discovery, the Company provided the Blissfield Township ordinance related to screening for a project of this type.[20] Lenawee County does not have zoning authority within the project area.[21] In relevant part, the Townships' Ordinances contain the following requirements for projects of this type:

[19] Exhibit A-15, p 62.
[20] Exhibit S-5.2, p 22.
[21] Exhibit A-4.1, p 14.

1. That "the perimeter of [the project] shall be screened and buffered by installed evergreen or native vegetative plantings whenever existing vegetation does not otherwise reasonably obscure the [project] from any public street and/or adjacent agricultural residential structures" (Blissfield);[22] and that "[the project] shall be screened from any adjacent property that is residentially zoned or used for residential purposes… consist[ing] of shrubbery, trees, or other non-invasive plant species which provide[] a visual screen" (Deerfield).[23]
2. That "at least 50% of plants must be evergreen trees, which shall not be less than 6 feet tall at the time of planting" (Deerfield).[24]
3. That "all unhealthy foliage ([40%] dead or greater[] of a tree or individual planting) shall be replaced by the applicant/owner/operator within… 6 months of the date of identification, or the next appropriate planting period, whichever comes first" (Blissfield).[25]

Q. What is the current state of the Company's alignment with item 1, related to general screening requirements, and Staff's assessment of the same?

A. The consistency of the Company's plans with item 1 is discussed in large part above. By default, both Townships require (notionally opt-out) screening, of the sort described by Staff above as typical for a project of this type. Staff recognizes that project-specific circumstances have informed the Company's current proposed screening choice for an opt-in screening model, which Staff suggests should be further modified as described

[22] *Ibid.*
[23] Exhibit A-15, p 62
[24] *Ibid.*
[25] Exhibit S-5.2, p 22.

above and below. Staff notes that its recommendations are based on an understanding of one township's preference, as elucidated in a recorded planning commission meeting from September of 2025; to the extent the Townships express and justify a different preference in the course of the instant case, Staff may adjust its recommended condition language to ensure its recommendations remain consistent with local preferences and the standards described above.

Q. What is the current state of the Company's alignment with item 2, related to tree type and height at planting, and Staff's assessment of the same?

A. The Company's proposed screening plan is not consistent with item 2. According to the application, the Company proposes a screen that is majority evergreen trees (three of every five), but that identifies no evergreen shrubs for its understory.[26] In Staff's view, the requirement to utilize 50% evergreen species is reasonable. As discussed above, there is a database put together by researchers at the Graham Sustainability Institute at the University of Michigan which lists all of the local ordinances in Michigan under which renewable energy projects were successfully permitted between 2018 and 2024, as well as sample template screening language informed by those ordinances.[27] Many of the examples, and the template itself, require 100% evergreen species, at an even greater density than the Company proposes for the project.[28] In Staff's opinion, the Company should be required to align its vegetation screening with the local standard of at least 50% evergreen plantings for its shrubs in addition to its trees, to minimize visual impacts on

[26] Exhibit A-1.1, Sheet no. C.506.
[27] University of Michigan Graham Sustainability Institute local ordinance catalog, including sample screening ordinance language
[28] *Ibid*.

adjacent and nearby local land uses. I will discuss Staff's recommended language for a condition requiring such below.

Also included in item 2 is the requirement that evergreen trees be at least 6 feet (ft) in height at the time of planting.[29] Based on experience in the assessment of similar projects, Staff's perspective is that there is a "goldilocks zone" for the planting height of evergreen trees. When planted too short/immature, the trees lack the nutrient reserves to weather shock and disease, and fail to provide a sufficient screen. When planted too tall/mature, the trees may not re-establish themselves in time to face those same factors, and are significantly more expensive. In Staff's experience and understanding, the sweet spot is in the ballpark of 5 feet in height at the time of planting, tapering off significantly at smaller heights, and with a longer tail of reasonableness toward larger heights.

In Staff's assessment, Deerfield Township's proposal of 6ft tall plantings is on the high end of the goldilocks zone and may be slightly taller than necessary. The Company's proposed height at planting, determined through Staff discovery to be 2 feet, is too short for successful longevity, in Staff's opinion. For the reasons described above, Staff's recommendation is that the Company be required to plant evergreen trees with a height of 5 to 6 feet at the time of planting. Although a slightly shorter height than the local ordinance requirement, it is a suitable middle ground from that to the Company's position, balancing cost and considering arboricultural best practices. I discuss accordant condition language below.

[29] Exhibit A-15, p 62.

Q. What is the current state of the Company's compliance with item 3, related to replanting of unhealthy foliage, and Staff's assessment of the same?

A. The third local ordinance standard would require that all unhealthy foliage be replaced by the Company within 6 months or in the next appropriate growing season, whichever comes first. In Staff's view, requiring the replacement of dead or dying foliage outside the appropriate growing season (which the local ordinance would require, if the appropriate growing season were more than 6 months away) is contrary to the purpose of replacing the foliage – namely, ensuring the long-term health and continuity of the screen. Staff's opinion, therefore, is that this standard is not reasonable as written. Staff instead, and in the same spirit as the local ordinance, recommends the Commission simply require the Company to replace dead or dying foliage in the next appropriate growing season.

Q. Finally, please describe Staff's review of the Company's proposed plans for one-time payments in lieu of screening.

A. As described by the Company, in addition to the ability to indicate a preference for screening, neighboring landowners would also be provided the option to select a one-time payment in lieu of screening. This payment is designed to "reasonably compensate the landowner to install vegetative screening on their own property," per the Company.[30] In response to Staff discovery, the Company indicated that the amount of such payment would be equal to the avoided cost of the screening material that would otherwise have

[30] Exhibit A-1.3, p 4.

been planted.[31] Staff's review of the Company's plan is favorable, and Staff supports its implementation.

Q. What is Staff's recommended condition language with respect to screening, considering all of the above discussion?

A. Staff recommends the Commission condition any certificate granted in the instant case on the following version of Proposed Minimum Condition 7, in consideration of all of the above:

7. The Applicant is required to implement vegetative screening as described in its application and responses to Staff discovery, presented in Exhibits S-5.1 and S-5.2, and amended as follows:
    a. The Applicant is required to plant evergreen shrubs as at least 50% of the plantings in its understory, as identified in Exhibit A-1.1, Sheet no. C.506;
    b. The Applicant is required to plant evergreen trees that are between 5ft and 6ft in height at the time of planting;
    c. The Applicant is required to replace all dead and dying vegetation within the next appropriate growing season; and,
    d. The Applicant is required to solicit the screening preferences of adjacent non-participating residences among the screening described here, the "no screening" option with payment in lieu of screening, and a "no screening" option with no payment; and the Applicant is required to implement screening for each such residence consistent with its expressed preference. If no preference is indicated by a residence, the Applicant may choose whether to implement screening for that residence.

I will discuss recommended condition language requiring submission of the final vegetation management plan in the course of my discussion of pollinator habitat, further below.

<u>Alternatives – Developed</u>

Q. Did the Company provide a description of feasible alternative developed locations for the project, and an explanation of why they were not chosen?

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[31] Exhibit S-5.3, pp 2-3.

A. Yes. The Company's provided maps indicate that the closest brownfield parcel is around 13 miles away from the project.[32] In Staff's opinion, spanning such distance is not practical. Further, Staff opines that attempting to include that parcel in the project would significantly impact project efficiency, and create new and additional impacts, including new land use impacts. The Company also provides that all of the brownfield sites in Lenawee County total only 82 acres, and that the sites therefore did not meet the criteria for inclusion in the project.[33]

Q. Does Staff take a position regarding the consideration of feasible alternative developed locations, including vacant industrial property and brownfields?

A. Yes. Staff recommends the Commission find that feasible alternative developed locations for the project have been satisfactorily considered.

Alternatives – Undeveloped Land and Overlay Districts

Q. Did the Company provide information related to undeveloped alternatives?

A. Yes. The Company provided discussion of undeveloped alternatives in Exhibit A-1.5, primarily through discussion of the criteria and constraints for parcel selection.[34] The Company also discussed the overlay districts of Blissfield and Deerfield Townships.[35] Specifically, the Company states that the overlay district in Blissfield Township – which confines solar facilities to Section 16 of that Township – is restrictive, and smaller than the land area needed for a utility-scale solar development. Similarly, in Deerfield Township, the Company notes that utility-scale solar development is limited to some

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[32] Exhibit A-1.5, p 14.
[33] *Id.* at p 7.
[34] *Id.* at pp 2-3.
[35] Exhibit A-15, pp 1, 338-339

parcels within 1,250 feet of a transmission line, as depicted in the application.[36] This limitation restricts such development to the very southern portion of the Township; the Company proposes to use some land within this overlay district and some other land area south of its northern edge.[37]

Q. What is Staff's general opinion on compliance with local overlay districts?

A. Historically, some local governments in Michigan have imposed overlay districts that, because of size or location, effectively prohibit the development of renewable energy projects. Such obstacles are contrary to the demands of climate change[38] and the state's renewable portfolio standards. PA 233's passage specifically alleviates the undesirable outcomes of such obstacles. On the other hand, much like local requirements for project screening, a local ordinance's requirements for project location, including through an overlay district, may express a certain degree of local preference; Staff's goal is alignment with local preferences whenever reasonable.

Staff also recognizes that the Commission is empowered and entrusted with a decision regarding the land use impacts of the proposed project, under PA 233 Sec. 226(6). Staff's understanding is that local ordinances, including location limitations in local ordinances such as overlay districts, are preempted if a certificate is issued, by PA 233 Sec. 231(3) to the extent it prohibits, regulates, or imposes additional or more restrictive requirements than those specified in the commission's certificate. The Commission is not constrained by a local overlay district.

Q. What is Staff's opinion on compliance with the local overlay districts in the instant case?

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[36] *Id*., at p 339.
[37] *Ibid*.
[38] *e.g.*, https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-6/

A. In the application and its response to Staff discovery, the Company asserts that compliance with the local overlay districts is not reasonable.[39,40] The Company implies that it is cost prohibitive and infeasible to construct a utility-scale solar facility under the restrictions imposed by the overlay districts. However, it does not specifically lay out the reasons why it would be cost prohibitive or infeasible. Instead, the Company makes two broader arguments for why it should not be made to comply with the local overlay district.

First, the Company argues that it should not be made to comply with the overlay districts because doing so "would not make it possible for the Project to meet the requirements of the Generator Interconnection Agreement (GIA)."[41] However, the level of interconnection provided through the GIA was selected by the Company, and a business risk taken during the MISO interconnection queue process. The Company cannot now claim that its own past choice of project size is a neutral factor supporting its proposed project size today. To the extent the Commission's decision were to encourage or require any extent of compliance with the local overlay districts, and to the extent that it were to limit the Company's buildable project area, the Company would need to reassess its options for interconnection.

Second, the Company argues that it should not be made to comply because the overlay districts are not a limitation consistent with 226(8).[42] While that may be a reason its project *need* not abide such restriction, it is not an argument for why it *should* not do

[39] *Id*., at p 1.
[40] Exhibit S-5.2, pp 8-9.
[41] *Id*., at pp 11-12.
[42] Exhibit A-15, p 1.

so. As discussed above, Staff endeavors to ensure compliance with reasonable local standards; but, the Company does not describe its attempts to comply with the local overlay district, despite Staff's attempts to learn further through discovery.[43]

The Company's information on the reasons and timelines for establishment of the overlay districts (e.g., relative to the project's land campaign), and without information on the Company's attempts to comply with the local overlay districts (e.g., conducting desktop surveys for feasibility of inclusion, approaching landowners within the overlay districts), Staff is unable to assess the reasonableness of the local requirements, or the merits of Company's attempts to limit the size of its project according to the overlay districts.

Staff does not necessarily agree with the Company's assessment that any additional alignment with the local overlay district would be cost-prohibitive and infeasible. On the other hand, Staff does not view the Company's level of misalignment with the local overlay districts as warranting denial of the application outright because of its impacts on local land use. To the extent the record ultimately suggests good reason for further alignment with the local overlay districts, Staff is confident that such alignment could be accomplished through certificate conditions.

<u>Percentage of Land Dedicated to Energy Generation</u>

Q. Does the Company describe the percentage of land within the local units of government dedicated to energy generation?

[43] Exhibit S-5.2, pp 8-9.

A. Yes. In Exhibit A-2, the Company states that "[a]t the time of its application, Blissfield Township and Deerfield Township do not have any land dedicated to energy generation."[44] The Company does identify three projects within Lenawee County, with a combined size of approximately 135 acres, with two other projects currently in planning stages.

Q. Are there any other facilities that Staff is aware of in those jurisdictions?

A. Although not mentioned by the Application, the Rouget Road Solar project, before the Commission in Case No. U-22003, is also proposed in Lenawee County. That project is 1061 fenced acres.[45] In Staff's assessment, in part considering Staff's support for that project in its direct testimony, it is appropriate to conservatively count the Rouget Road project area toward land dedicated to energy generation in Lenawee County, for the purposes of the Glacier Meadows project.

Q. What would the project's use of land within each jurisdiction translate to, in terms of percentages?

A. According to Staff calculations, the project would use the following approximate percentage of land in each jurisdiction for energy generation:[46]

- In Blissfield Township the project would use 1.1% of the total area of the jurisdiction, resulting in 1.1% of the total area of the jurisdiction being dedicated to energy generation.

[44] Exhibit A-2, p 3.
[45] Direct Testimony of MPSC Staff in Case No. U-22003, p 95. Available at: https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/068cs00001xuFpwAAE; accessed June 28, 2026.
[46] Exhibit S-4.4, pp 1-3.

- In Deerfield Township the project would use 5.8% of the total area of the jurisdiction, resulting in 5.8% of the total area of the jurisdiction being dedicated to energy generation.
- In Lenawee County, the project would use 0.25% of the land within the jurisdiction, resulting in 0.5% of the total area of the jurisdiction being dedicated to energy generation.

In calculating these values, Staff considered only the fenced-in acres of the project area. This approach is generally appropriate because the land on the edge of solar facilities remains available for farming by the landowners, a common practice which does not "dedicate" that land area to energy generation. It is also appropriate in the instant case because there are portions of the total project area that are limited to collection line only, and such portions would also not be "dedicated" to energy generation after construction is completed.

Q. What is Staff's opinion regarding the impact of the project on local land use, in the context of the percentage of land dedicated to energy generation?

A. In Staff's opinion, the usage of these percentages of land by the project is not unreasonable or imprudent.

PA 233 does not establish a standard threshold regarding the percentage of a jurisdiction's land which can be reasonably dedicated to energy generation. And, establishing such a percentage that applied statewide and to every jurisdiction would likely be both imprudent and untenable, because (among other reasons) the appropriate percentage of a given jurisdiction dedicated to energy generation varies widely depending on the willingness of the community to host such generation, as well as the use to which the land would otherwise be put. Furthermore, not all townships in Michigan are the same size; they range from 70-acre Novi Township in Oakland County to >376,000-acre McMillan Township, in Luce County. A single state-wide percentage standard would not properly consider these underlying differences in township size and existing land use.

Nonetheless, to attempt to understand an appropriate line along this spectrum for a benchmark, Staff finds some evidence in scientific literature. For example, Staff reviewed and found to be methodologically reasonable a highly-cited study published in *Nature Scientific Reports* in 2021 on this subject.[47] That study describes anticipated land use for solar in various futures, across a range of values for solar market penetration, and it accounts for advances in technology that would allow a higher capacity per acre than is currently feasible.[48] Under those considerations, that study showed that solar will likely take up 0.5% to 2.8% of total territory in the European Union, and 1.2% to 5.2% in Japan and South Korea, by 2050, though also noting that the use of land for solar "is unequally spread within each of the regions."[49] Considerations in the United States and in Michigan differ from those places, and while caution is required when basing a quantitative judgement on a study of other economies and geographies, studies such as the one described above have informed Staff's assessment. The project's proposed land use quantities in Blissfield Township and Lenawee County fall below the approximate range of those values, and its proposed land use in Deerfield Township is at the highest end of that range.

[47] Exhibit S-5.6, p 2.
[48] *Ibid.*
[49] *Ibid.*

Staff recommends that the Commission find that the usage of land for energy generation by the project is reasonable in Blissfield Township and in Lenawee County. Staff recommends that the Commission find the same for Deerfield Township, because the ranges provided in one article for some jurisdictions should not be a hard-and-fast rule for projects in Michigan. However, the amount of land used in Deerfield Township suggests to Staff that any future projects proposed in Deerfield Township under PA 233 should be inspected with a highly rigorous lens.

Farmland Impacts

Q. Please describe the scope of your review related to the impacts of the project on farmland.

A. As I described above, Staff considers farmland impacts to be a key component of the impacts on local land use of a project proposed on agricultural land. But farmland impacts are also called out specifically by MCL 460.1226(7)(f). If a certificate is to be issued, MCL 460.1226(7)(f) requires the Commission find that the project "will not unreasonably diminish farmland, including, but not limited to, prime farmland and, to the extent that evidence of such farmland is available in the evidentiary record, farmland dedicated to the cultivation of specialty crops." I reviewed the Company's discussion related to farmland impacts of the project in this context.

Q. Please describe Staff's farmland analysis methodology.

A. In calculating the parameters outlined in the AFIP, Staff's methodology included the following:

Firstly, Staff calculated a value for the overall farmable land available in each jurisdiction by using the United States Department of Agriculture (USDA) Cropland

Collaborative Research Outcomes System (CroplandCROS) to calculate the quantity of land in each jurisdiction that is not developed. The Commission's AFIP directly reference and provide a weblink to this resource.[50]

Secondly, for its prime farmland analysis, in each jurisdiction Staff calculated the acreage of land that is considered prime farmland, according to the USDA's Soil Survey Geographic (SSURGO) Database, and the portion of that prime farmland that is also developed, according to the CroplandCROS database. Excluding the latter value from the former produces a more accurate estimate of available prime farmland in each jurisdiction than an estimate based on soil type alone.

Thirdly, Staff calculated the acreage of land used for the cultivation of specialty crops using the CroplandCROS database.

Finally, Staff calculated the farmland of each type (general, prime, specialty) used by the project based on the above methodology for the area within the project fence, using ArcGIS shapefiles for the fenced area of the project provided by the Company. As described above in relation to the percentage of land dedicated to energy generation, this is more appropriate than consideration of the entire project area.

Staff's calculations of these and other values discussed in this section are found in Exhibit S-5.5.

Q. What amounts of farmland are already occupied by energy generation in each jurisdiction?

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[50] AFIP 6.3.9(b).

A. As discussed above, there is no energy generation currently in Blissfield or Deerfield Townships. For Lenawee County, Staff was unable to calculate the exact percentage of farmland currently occupied, due to lack of availability of detailed GIS data for the energy generation facilities not at issue in the instant case. Nonetheless, as described above the total amount of land in Lenawee County dedicated to energy generation is approximately 0.25%. Even if one conservatively assumes that all of that land is farmable, it represents a very small amount of the overall farmable land in the jurisdiction, on the scale of, or smaller than, what the project in the instant case proposes to occupy. Also, to the extent that the facilities are already constructed, they may properly register in the USDA CroplandCROS's underlying National Land Cover Database as "developed." In such case, Staff already takes the diminishment of farmland by those facilities into account, because Staff subtracts the amount of developed land in its calculations of the percentage of local farmland that the project in the instant case will occupy.

As a result of the above factors, Staff's analysis of farmland diminishment in this case focuses only on the land used by the project; however, in future cases Staff may have cause to examine farmland already used by energy generation more closely, in the context of its farmland diminishment analysis.

Q. What are the amounts of farmland proposed to be used by the project, overall and with respect to farmland in each jurisdiction?

A. According to Staff calculations, the farmable area proposed to be enclosed by the project fence is approximately:

- 150.4 acres in Blissfield Township;

- 939.4 acres in Deerfield Township; and,
- 1089.8 acres in Lenawee County.

Considering these values, based on the methodology described above:

- The project would use 1.3% of the farmland in Blissfield Township;
- The project would use 6.2% of the farmland in Deerfield Township; and,
- The project would use 0.3% of the farmland in Lenawee County.

Q. What are the amounts of prime farmland proposed to be used by the project, overall and with respect to prime farmland in each jurisdiction?

A. According to Staff calculations, the project does not propose to enclose any prime farmland within its project fence. However, approximately 95.8% of the fenced project area is classified as "Prime Farmland if Drained."[51] In response to Staff discovery, the Company indicated that it "will consult with all participating landowners prior to the start of construction in Q2 2027 to identify known agricultural drain tile locations."[52] This couples with the requirement under Staff's proposed conditions for the Company to "repair or replace all public and private drainage systems, including county and intercounty drains damaged from construction or decommissioning processes."[53]

Q. Does the record reflect any evidence of land used for the production of specialty crops within the project area?

A. Yes, the Company identified that the overall project area contains approximately 40 acres of specialty cropland, of which 31.5 acres is cabbage crop area.[54] Approximately half of

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[51] Exhibit A-9, p 4.
[52] Exhibit S-5.4, p 3.
[53] Exhibit S-2.1, p 3.
[54] Exhibit 5.5, p 5.

that specialty crop area is outside of the project fence.[55] These values are small compared to the specialty cropland within the jurisdictions, amounting to less than 5% of the specialty cropland in Blissfield Township and less than 1% of the specialty cropland in Lenawee County.[56]

Q. How did Staff analyze the diminishment of these farmland types by the project?

A. At the time of preparation of this testimony, the Commission has not yet laid out a standard for how it will determine whether a project would unreasonably diminish farmland. However, in the instant case, Staff is not concerned with the quantity of farmland used by the project across any of the three categories within either jurisdiction, for substantially similar reasons to those described in the section of my testimony relating to the percentage of land dedicated to energy generation.

Q. Is Staff concerned with the quality of farmland used by the project?

A. No, Staff is not concerned with the quality of farmland used by the project. As described above, the project does not propose to enclose any area categorized unconditionally as prime farmland. Staff does not recommend the Company be required to take additional action related to the quality of farmland to be enclosed.

Q. Finally, how much of the project farmland is enrolled within Michigan's Farmland and Open Space Preservation Program, commonly known as PA 116,[57] compared to the statewide enrollment rate?

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[55] Exhibit A-1.2, p 5.
[56] Exhibit S-5.5
[57] Note that although "PA 116" is commonly used to refer to the program, Staff's understanding is that PA 116 of 1974 was repealed, and the program modified and re-codified, by Public Act 451 of 1994, the Natural Resources and Environmental Protection Act (NREPA).

A. Staff estimates that within the project, approximately 782 fenced acres, approximately 71.7% of the project's fenced area, is proposed on land enrolled in the PA 116 program.[58] Statewide, approximately 3.3 million acres[59] of Michigan's 9.4 million acres of farmland,[60] or 35% of farmland acres are enrolled in PA 116.

Q. What is Staff's framework for analyzing use of PA 116 land for solar projects?

A. Public Act 230 of 2023 (PA 230) provides a clear pathway for farmland enrolled in the PA 116 program to be used for utility-scale solar facilities. The pathway under PA 230 involves amendment and temporary deferment of PA 116 agreements during the period of use for solar. This deferment is permissible if, and only if, the developer of the solar facility meets certain commitments to ensure that the use of PA 116 land for solar is consistent with the farmland preservation goals of the program, including return of the land to suitable condition after decommissioning. These commitments related to project decommissioning are addressed by Staff witness Kroeker. Subject to the Company's compliance with the framework laid out by Staff witness Kroeker, Staff is not concerned with unreasonable diminishment of PA 116 land by the project.

Q. Does this resolve all of Staff's farmland concerns in the instant case?

A. Subject to the above, it does. Staff recommends the Commission find that the project, subject to the conditions described in Staff testimony, does not unreasonably diminish any form of farmland.

Potential Project Changes

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[58] Exhibit S-4.5, p 10.
[59] As of 2018: https://www.canr.msu.edu/news/pa-116-a-farmland-preservation-program-in-michigan-that-new-farmers-may-not-be-familiar-with.
[60] As of 2024: https://www.nass.usda.gov/Statistics_by_State/Michigan/Publications/Current_News_Release/2025/nr2511mi.pdf.

Q. Please describe the context to Staff's review of potential changes to the project discussed in the application.

A. According to MCL 460.1222(3), "If the commission has issued a certificate for an energy facility, the electric provider or IPP may make minor changes, as defined by the commission, to the site plan if the changes are within the footprint of the previously approved site plan." The AFIP provides, "A minor change is any change within the project footprint that still allows the facilities to meet all of the criteria outlined in PA 233, does not create new or additional impacts and does not require new permits…", but also that a minor change does not include any of a list of seven exceptions.[61]

If a certificate is granted, further design iteration and future permitting processes, such as those for wetland impacts, stormwater design, endangered species impacts, and others, may necessitate changes to the project. However, in certain circumstances, changes arising because of further project permitting and/or design iteration might fail one of the criteria provided by the AFIP for determining if a change is minor, but still improve the overall impacts of the project. The Commission's authority to define minor changes coupled with the Commission's authority to attach conditions to a certificate under MCL 460.1226(6) provides a pathway for granting the Company additional discretion to make such changes to the project.

In Staff's opinion, such discretion should be limited. In reviewing whether to support the Company's request for discretion to make these changes, Staff considered the following:

[61] AFIP 7.6(b)

1. What the change would be, and what circumstances would lead to the change;
2. When those circumstances would be known and the decision made;
3. Where the change would occur within the project, including scope and scale;
4. Why discretion to make the change is warranted, considering the impacts of the change; and,
5. How the Company will keep all relevant parties informed as it considers and makes the change.

Q. Please describe Staff's review of the changes identified by the Company.

A. The Company described ten potential changes in its application, providing its understanding of the posture for evaluation of those changes, and articulating some of its requested discretion for future adjustments to its project.[62]

Q. As a threshold matter, are there any aspects of the Company's description of its changes that warrants further explanation?

A. Yes. In explaining its potential future changes within Exhibit A-1.6, the Company at times interchangeably used the terms "project area", "project footprint," and "project site" to refer to the Project's leased acreage, totaling approximately 2,213 acres.

Q. Is this consistent with Staff's understanding and usage of those terms?

A. It is not, no. In Staff's understanding and analysis, the terms "project area" and "project footprint" refer to two different geographic features. "Project area" generally carries roughly the meaning consistent with the Company's usage – the collective participating parcels. On the other hand, Staff understands the "project footprint" to cover only the

[62] Exhibit A-1.6

proposed fenced perimeter for fenced facilities (often referred to as "fenced-in" portion of the project), plus the minimum necessarily limits of disturbance for installation, operation, and decommissioning of non-fenced features. Staff does not generally use the term "project site". The distinction between these terms is important because the Company's mixed usage leads to the erroneous conclusion that it has more discretion to make future changes than it has according to Staff's assessment. As noted above, PA 233 permits changes, but only "if the changes are within the footprint of the previously approved site plan." MCL 460.1222(3). Any further discretion to make changes that is warranted should be explicitly afforded within the certificate by the Commission, as described above. Staff notes that, after explanation to the Company during the case technical conference, and in response to Staff discovery, the Company ultimately established agreement with Staff's understanding, stating at the very least that its proposed Change 1 would "trigger… criteri[on] AFIP §7.6(b)(1)",[63] which defines as non-minor any "change that would expand the footprint or perimeter of the site plan."[64]

Q. Are there any changes for which additional discretion is not necessary, in Staff's view?

A. Yes. In Staff's analysis, Changes 4, 5, 7, 8, 9, and 10 all appear to be changes within the project footprint or that do not affect the project footprint.[65] Further, the Company did not represent that any of those changes, in the manner and for the reasons described, would be likely to increase impacts, impact permit requirements, or run afoul of any of the seven specific exceptions to minor changes discussed in the AFIP, Section 7.6(b), an

[63] Exhibit S-5.4, pp 4-5
[64] AFIP 7.6(b)(1).
[65] Exhibit A-1.6, pp 9-12, 15-25.

assessment with which Staff agrees.[66] Staff has already evaluated the project within its proposed footprint, and characterized appropriate conditions for such project. Staff's opinion is there is no need for the Commission to grant the Company additional discretion to make Changes 4, 5, 7, 8, 9, or 10 beyond that which is already provided under the law and the AFIP.

Furthermore, in response to Staff discovery, the Company indicated that it is no longer contemplating Change 6.[67] As a result, Staff did not further evaluate whether additional discretion was warranted with respect to that change. This leaves Changes 1, 2, and 3 for further discussion here.

Q. Please describe Change 1 presented by the Company.

A. Change 1 is divided into two related parts – "additional potential equipment locations" for photovoltaic and other non-substation equipment (signified by the red-hashed area in Exhibit A-1.6, Figure 1), and "additional potential facility locations" for the project substation, operations and maintenance (O&M) building, and gen-tie line (signified by the blue-dotted area in Exhibit A-1.6, Figure 1).

Q. What is Staff's assessment of the potential impacts of Change 1?

A. Regarding the additional potential equipment locations, the Company indicated in response to Staff discovery that "the additional locations are within the scope of the Project's evaluated study area and are consistent with the assumptions used in the applicable environmental and permitting analyses."[68] Staff evaluated the Company's

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[66] *Ibid*.
[67] Exhibit S-5.4, pp 6-7.
[68] *Id*., at p 4.

desktop study area, provided in Exhibit A-6.2, and has determined that it overlaps completely with the additional potential equipment locations.[69]

On the other hand, regarding additional potential facility locations, Staff again compared to the Company's desktop study area and determined that there is incomplete overlap between the two. Staff inquired through discovery as to whether the Company had conducted desktop/field studies regarding impacts over the entire area of additional potential facility locations, including those non-overlapping locations. Compared to the similar request above with respect to potential equipment locations, the Company provided a different response to Staff's inquiry, noting only that "desktop and field studies related to Project impacts have been completed for all parcels within the Project footprint."[70] Relevantly, the clearest non-overlapping location is on a parcel which was not considered part of the Project footprint at the time of most of the Company's environmental studies.[71]

Q. What is Staff's assessment of the Company's response?

A. The Company's answer is not fully responsive to Staff's inquiry. While that general statement is apparently accurate, it does not reassure Staff that the additional potential facility locations have been evaluated for placement of facilities (e.g., substation, O&M facilities) in the same manner as the proposed locations for those facilities in the site plan.

Q. Does Staff have further assessment of the potential impacts of Change 1?

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[69] Exhibit A-6.2, pp 56, 79, 304, 370.
[70] Exhibit S-5.4, p 5.
[71] The easternmost blue-hatched parcel in Exhibit A-1.6, p 8 is ***not*** included in the study areas displayed in Exhibit A-6.2, pp 56, 79, 304, 370.

A. Yes. Aside from being outside the project footprint, the clearest way in which Change 1 may violate the Commission's minor change criteria is by "reduc[ing] setback distances from any part of the planned facilities to occupied structures, non-participating property lines, or rights-of-way" in a way that causes "the new setbacks [to] violate any setback requirements in PA 233."[72] The Company does not discuss this potential impact of its change, except in the most general possible sense by stating that "[a]t a minimum, any changes will be in full compliance with PA 233."[73] Acceptance of this general statement, without supporting evidence or explanation, would leave Staff in the position of having to assume that additional potential facility and equipment locations do not violate the setback requirements of PA 233 in order to reach a position of support the Company's requested discretion. Staff makes no such assumptions, particularly because being wrong in the same threatens undue impacts on non-participating properties and violation of statutory limits.

Q. Did Staff receive further information regarding the potential impacts of these potential changes to equipment and facility locations from the Company?

A. In response to Staff discovery, the Company indicated that changes to inverter locations or the location of the main power transformer at the project substation could affect sound modeling results.[74] If the Company were to pursue such changes, it states that "noise impacts would be re-evaluated through an updated sound model."[75]

Q. Is this response satisfactory, in Staff's opinion?

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[72] AFIP 7.6(b)(3).
[73] Exhibit A-1.6, p 3.
[74] Exhibit S-5.4, p 4.
[75] *Ibid*.

A. It is not. Again, because Change 1 encompasses potential placement of equipment and facilities outside the footprint as laid out in the site plan, the Company is, in effect, requesting that the Commission pre-clear the Company to make the changes described. Even if the Commission grants such discretion, the Company is still responsible for ensuring that its changes do not "increase… noise impacts to non-participating structures above the 55 dB average hourly limit" set by PA 233.[76] The Company's commitments to date with respect to those changes are insufficient, in Staff's opinion, to ensure that responsibility is upheld. For example, the Company provides no assurance or explanation of the timing and methodology of its updated modeling, nor how it would use those results. And while it would be logical for the Company to conduct noise modeling prior to construction in the same manner as it conducted the modeling for inclusion in its application, then mitigating increased sound levels according to that the plan presented in its application so that it kept sound impacts below the PA 233 limit, the Company provides no such commitments or explanations.

Q. Does Change 1 pose any other potential impacts that would run afoul of the AFIP 7.6(b) minor change criteria?

A. Yes. In Staff's analysis, changes to potential facility locations could "affect[] water detention or retention or other stormwater runoff."[77] The project substation facilities and O&M facilities have associated stormwater detention or retention features, in the form of a vegetated filter strip.[78] Because changes to the location of the substation or O&M facilities would apparently require commensurate changes to the location of stormwater

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[76] AFIP 7.6(b)
[77] *Id.*, at item 4.
[78] *e.g.,* Exhibit A-1.6, p 8.

features, such changes have the possibility of affecting water detention, retention, or other stormwater runoff.

Q. Does the Company state that it will avoid such impacts, and explain how it will do so?

A. No, except for the Company's general representations with respect to PA 233 compliance noted above, which do not provide sufficient explanation for how the Company will ensure compliance with the law and AFIP. In discovery, Staff asked the Company to "specifically address [AFIP] 7.6(b)(4)" in the context of its additional potential facility locations. While the Company replied that "[use of] the additional locations would not affect water detention or retention, stormwater management, drainage patterns, or stormwater runoff," the Company provided no evidence in support of that statement.[79]

Q. What is Staff's overall evaluation of Change 1, within the framework presented above?

A. As discussed above, Staff evaluates potential changes to determine whether the evidence provided by the Company supports the Company's request for discretion to make the change, considering the impacts of the change. The Commission has discretion in deciding whether to grant the Company's request to allow equipment and facilities to be placed outside the proposed project footprint.[80] In Staff's opinion, much remains to be resolved about the Company's obligations related to the impacts of such changes, so at this time Staff does not recommend the Commission grant the Company discretion to make changes in the manner described by Change 1.

Q. Please describe Staff's review of Change 2.

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[79] Exhibit S-5.4, p 5.
[80] MCL 460.1222(3).

A. Change 2 describes potential locations where the Company may use horizontal directional drilling (HDD) to install collection lines and/or the gen-tie line, to minimize impacts on "waterbodies, cultural resources, county drains, and/or intercounty drains."[81] The Company states that "[t]he exact locations for the collection lines, gen-tie line, HDD bore pits, bore lines, and associated temporary workspaces" are still to be determined, and are subject to continued design iteration. The Company essentially describes two different circumstances that would lead to changing the location of these features – due to further "design by the Project's [engineering, procurement, and construction] contractor and/or consultation with landowners", or due to "consultation with… [the Michigan Department of Environment, Great Lakes and Energy (EGLE)], [the] State Historic Preservation Office (SHPO), and [the Lenawee County Drain Commissioner's Office (LCDCO)]."[82] In other words, the Company indicates that it wants to make such changes at its own discretion, and/or as instructed by EGLE, SHPO, and/or LCDCO.

Q. Does Staff support that requested discretion?

A. No. As with Change 1, the Company's discussion of the potential impacts of Change 2 is limited to statements regarding its intent to comply with the provisions of PA 233, and not to run afoul of the limitations for minor changes in AFIP 7.6(b) (other than the limitation for such changes to occur within the proposed footprint). For substantially similar reasons to those discussed above with respect to Change 1, without specific explanations and commitments related to such compliance, Staff cannot at this time support the Company's requested discretion to make the changes described by Change 2

[81] Exhibit A-1.6, p 5.
[82] *Ibid*.

completely at its own decision. However, Staff can support the Company's discretion to make changes when and where instructed by EGLE, SHPO, and/or LCDCO.

Q. Why is Staff's support split based on involvement of those agencies?

A. In its application, the Company claims that the final locations selected will "avoid impacts to environmental resources… to the extent practicable."[83] This reassurance does not demonstrate that the Company will comply with applicable state and federal environmental laws. PA 233 requires "statements[s] *and reasonable evidence* that the proposed energy facility will not commence commercial operation until it complies with applicable state and federal environmental laws."[84] However, to the extent that changes to these features are supported through further consultation with EGLE, SHPO, and/or the LCDCO, Staff recommends deferring to those agencies as articulated by Staff witness Krupp. Therefore, for the reasons discussed above, Staff supports the Company maintaining discretion over final locations for the features discussed in Change 2, so long as changes to those locations are made based on the guidance of EGLE, SHPO, or the LCDCO, and so long as such changes do not run afoul of any of the other items contained in AFIP 7.6(b) (e.g., reducing project setbacks in a way that violates PA 233 limits). Staff does not, however, support granting the Company discretion to make changes to those locations when such changes are not based on such guidance.

Q. Does Staff have recommended language for an accordant condition?

A. Yes; Staff suggests the Company be afforded discretion as follows:

> 26. Upon notice to the Commission within a letter uploaded to the docket in Case No. U-22044, the Applicant is authorized to make the following changes to

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[83] *Ibid*.
[84] MCL 460.1225(1)(i), emph. added.

the project, even if the changes would otherwise not fall within the discretion provided under the AFIP:

a. Changes to locations for the collection line crossings of existing infrastructure, waterbodies, cultural resources, county drains, and/or intercounty drains, including associated horizontal directional drilling bore pits, bore lines, and associated temporary workspaces, to the extent that such changes:
   i. Are within the locations described in Exhibit A-1.6, Change 2;
   ii. Would only be considered non-minor on the basis of being outside the approved project footprint; and,
   iii. Are required by the Department of Environment, Great Lakes, and Energy; the State Historic Preservation Office; and/or the Lenawee County Drain Commissioner's Office.

Q. Finally, please describe Staff's review of Change 3.

A. Change 3 covers potential design changes to the proposed gen-tie line for the project, spanning between the project substation and the utility substation. The Company erroneously claims that changes to the gen-tie line will be located within the existing project footprint.[85] Changing the gen-tie line route will change the project's limits of disturbance. In general, changes to the limits of disturbance have the potential to disrupt Staff's analysis of the project's compliance with PA 233, which is why they are analyzed in the context provided by the AFIP, 7.6(b).

In response to Staff discovery, the Company indicated that changes to the gen-tie line "will be… consistent with typical industry practices to minimize the total length of such features and therefore the total area of disturbance, except where additional length may be necessary for avoidance of specific impacts."[86] The Company "[c]onfirmed further that the final version of those features will be of similar length and location to the

[85] Both because its definition of project footprint was inconsistent with Staff's understanding at the time of filing, and because it appears the proposed gen-tie line area was not included in most of the Company's environmental study areas, as described with respect to Change 1.
[86] Exhibit S-5.4, p 6.

features as proposed in the Application, other than as changed consistent with those design principles and avoidance measures."[87] Because of scattered, and at times sparse, information provided by the Company with respect to its environmental permitting, it was difficult for Staff to determine whether the area of potential placement of the gen-tie line has been reviewed at a level commensurate with PA 233 requirements. However, as described by Staff witness Krupp, the Company does appear to have included the area in its studies related to environmental and natural resource impacts at a level satisfactory to the current project design.

In contrast to the additional potential facility locations described above, the proposed changes to the gen-tie line do not appear to impact Staff's sound or stormwater analysis. The proposed gen-tie line changes also should not impact the Company's compliance with PA 233 setback requirements. As a result, Staff is able to recommend the Commission allow discretion for the Company to move its gen-tie line route, as described in Change 3, and constrained consistent with the limitations to Staff's review, described above.

Q. Does Staff have recommended language for an accordant condition?

A. Yes; Staff suggests the Commission add an item "b" under Proposed Condition 26, described above, allowing the Company to make the following changes:

> b. Changes to the location of the generator tie-line, including length of wire and number of poles, to the extent that such changes:
>   i. Are constrained to the yellow-hatched area depicted in the application, Exhibit A-1.6, Figure 3;
>   ii. Would only be considered non-minor on the basis of being outside the approved project footprint; and,

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[87] *Ibid*.

iii. Are consistent with industry-standard design principles, and otherwise minimize the length of the feature and area of disturbance except to avoid impacts, as described in the Company's responses to Staff discovery, presented in Exhibit S-5.4.

Pollinator Habitat and Invasive Species Prevention

Q. Please describe Staff's evaluation with respect to pollinator habitat and invasive species prevention.

A. The Company's plans to establish pollinator habitat are described in its application, especially through the map showing its planned locations for its panel and buffer area seed mixes,[88] and its sample Michigan Pollinator Habitat Planning Scorecard for Solar Sites (pollinator scorecard), which provides that the Company plans to achieve above the minimum required score.[89] As noted previously, the Company has also provided vegetation management plans in response to Staff discovery.[90]

Regarding measures against the introduction of invasive species, the Company has committed that it "will cross-reference all species on seed tags for pollinators and other groundcover plantings against the [Midwest Invasive Species Information Network] database," and that "[d]uring construction, equipment will be required to arrive clean [of invasive species] and will be inspected prior to starting work onsite."[91]

Q. What is Staff's assessment of the Company's plans and representations with respect to pollinator habitat and invasive species?

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[88] Exhibit A-1.1, Sheet No. C-202.
[89] *Id.*, at Sheet No. C-507.
[90] Exhibit S-5.1, pp 4-29.
[91] Exhibit S-5.2, pp 7-8.

A. Staff's opinion is that the Company's plans to establish and maintain pollinator habitat, and to prevent introduction of invasive species, as described in its application and responses to Staff discovery, are reasonable, and are likely to result in successful compliance with the pollinator scorecard and invasive species prevention standards without amendment.

Q. Does Staff recommend condition language on these subjects?

A. Yes. PMC 8 already addresses pollinator habitat and invasive species, and Staff sees no reason to discard the language entirely. Staff's opinion is that the Commission need only modify the PMC language to ensure the Company takes the actions to which it has already committed. The recommended final version of the condition is:

> 8. The Applicant is required to implement vegetative ground cover in consideration of Michigan State University's "Michigan Pollinator Habitat Planning Scorecard for Solar Sites", and avoid invasive species in its project area, by implementing at least the steps described in its application and responses to Staff discovery in Case No. U-22044 presented in Exhibit S-5.1 and S-5.2.

Staff also recommends that a sub-item be added to Condition 2, discussed by Staff witness Mullkoff. Condition 2 addresses the pre-construction meeting between Staff, the Company, and other parties including the ALUs. Staff's addition proposed here would merely specify the timing and manner for submission of certain compliance items. The suggested addition is that, prior to the pre-construction meeting, the Company must:

> 2. […]
>
> h. Provide the final version of the Michigan State University Pollinator Scorecard for Solar Sites, and any vegetation and/or soil management plans.

<u>Conclusion</u>

Q. Does this conclude your direct testimony in this case?

A. Yes, it does.

S T A T E O F M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of Glacier Meadows Solar, LLC for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.	))))))	Case No. U-22044

QUALIFICATIONS AND DIRECT TESTIMONY OF

JONATHAN KROEKER

ON BEHALF OF

MICHIGAN PUBLIC SERVICE COMMISSION STAFF

July 20, 2026

QUALIFICATIONS OF JONATHAN KROEKER
CASE NUMBER U-22044
PART I

Q. Please state your name and business address for the record.

A. My name is Jonathan Kroeker and my business address is 1800 Sutter Street, Concord, CA 94520.

Q. By whom are you employed and in what capacity?

A. I am employed by Weston Solutions as a Senior Project Manager.

Q. Would you please outline your educational background?

A. I earned a Bachelor of Arts in Environmental Studies with a minor in Photography from San Jose State University in San Jose, California.

Q. Would you please outline your professional experience?

A. I have over 18 years of experience as an Environment, Health, Safety, and Sustainability professional with extensive experience evaluating environmental compliance obligations, hazardous materials management, greenhouse gas accounting, environmental due diligence, regulatory reporting, and site assessment activities. My work has included review of complex environmental documentation, assessment of potential environmental liabilities, evaluation of regulatory requirements, and development of technical recommendations for public and private sector projects. This background provides me with the technical expertise necessary to critically assess environmental risks, evaluate regulatory compliance considerations, and determine whether proposed decommissioning measures are protective of human health, natural resources, and the environment.

Q. How are you associated with the matter of the application of Glacier Meadows Solar LLC for a Renewable Energy Siting Certificate, in the Michigan Public Service Commission (MPSC) Case No. U-22044?

A. Weston Solutions, Inc. was selected by the MPSC as a vendor to provide subject matter expertise related to decommissioning for MPSC Case No. U-22044. Based on my qualifications, Weston selected me to support the review of the decommissioning report.

Q. Have you previously presented testimony before the Commission or assisted with other cases before the Commission?

A. No, I have not.

Q. Please define any terms you use in this testimony.

A. In this testimony:

(1) "AFIP" means the Commission's Application Filing Instructions and Procedures

(2) "The Applicant" and "The Company" mean Glacier Meadows Solar, LLC.

(3) "MDARD" refers to Michigan Department of Agriculture and Rural Development

(4) "PA 116" refers to the Michigan Farmland and Open Space Preservation Program

(5) "PA 230" refers to Public Act 230 of 2023

(6) "PA 233" means Public Act 233 of 2023

(7) "Project" or "Facility" means the Glacier Meadows Solar energy facility proposed under PA 233.

(8) "R299.46" establishes Michigan's Generic Cleanup Criteria for Residential Land Use under Part 201 of the Natural Resources and Environmental Protection Act (Act 451 of 1994). These criteria are risk-based concentrations intended to protect against unrestricted residential exposure pathways.

(9) "Record" means the application and attachments including Exhibits A-13.1 through A.13.3, any amendments, as well as responses to Staff discovery (Exhibit S-6.1), and other materials filed in this docket to the extent referenced.

Q. Please identify the exhibits that fall under your testimonial purview.

A. My testimony addresses matters primarily related to the Applicant's Exhibit A-13.1 (Decommissioning Plan) in the matter of Glacier Meadows Solar, Case No. U-22044. I also reviewed portions of Exhibits A-13.2 (Detailed Decommissioning Cost Estimate) and A-13.3 (Proposed Decommissioning Agreement).

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes, I am sponsoring Exhibit S-6.1, which includes Company responses to Staff's Sixth Discovery Request pertaining to Exhibit A-13.1.

Q. What is the purpose of your testimony regarding Exhibits A-13.1?

A. The purpose of my testimony is to (1) summarize my review of the Applicant's Decommissioning Plan (2) describe the governing PA 233 standards and the Commission's AFIP requirements, and (3) recommend certificate conditions to help ensure that participating properties are returned to a useful condition similar to that which existed before construction, and ensure the Applicant's compliance with other requirements and best practices.

Q. What statutory requirements govern the Decommissioning Plan?

A. My review of Exhibit A-13.1 (Decommissioning Plan) is guided by the Commission's AFIP requirements for decommissioning exhibits, and by the governing statutory standards in Public Act 233 of 2023 and PA 116. PA 233 requires that an applicant's decommissioning plan be consistent with agreements reached with participating landowners and that it ensures the return of participating properties to a useful condition similar to that which existed before construction, including the removal of above-surface facilities and infrastructure that have no ongoing purpose.[1] In addition, where participating parcels are enrolled in the State's farmland preservation program, PA 116's purpose of preserving land in agricultural use underscores the importance of decommissioning details that support a return to agricultural productivity, including restoration practices and protection of farm drainage features.

Q. Please describe your review of the Decommissioning Plan.

A. I reviewed the Company's Decommissioning Plan and Proposed Decommissioning Agreement, drafted discovery requests, and evaluated the Company's responses against: (1) the AFIP exhibit requirements applicable to Exhibits A-13.1; (2) the parts of Michigan PA 233 applicable to decommissioning which require "…the return of participating properties to a useful condition similar to that which existed before construction, including removal of above-surface infrastructure that have no ongoing purpose;" and (3) where applicable, PA 116's farmland preservation objective of maintaining land for agricultural use, which informs Staff's focus on restoration methods, drainage protection, and post-decommissioning agricultural usability.

Q. Were any other sections part of your review?

A. Yes, I was asked to review Section 8 from Exhibit A-13.2 of the Decommissioning Cost Estimate regarding the subtraction of salvage values from the total cost of disassembly, transport and disposal. The results of my review of Section 8 are included towards the end of this testimony. Additionally, I reviewed Exhibit A-1.4, Attachment A –

[1] MCL 460.1225(1)(r).

Geotechnical Reports; the results of the review are included with the discussion in this testimony relative to AFIP requirement 6.3.13(a)1.iv.

Q. Please summarize your overall findings regarding the Applicant's Exhibit A-13.1 decommissioning plan.

A. Exhibit A-13.1 generally follows the outline of AFIP Section 6.3.13, Exhibit A-13.1. While the Decommissioning Plan addresses all requirements, some sections contain incomplete information, non-committal language, or lack specificity relative to a particular requirement. Discovery requests were submitted to solicit information to close these gaps and where gaps remained, I recommend conditions, which are presented later in this testimony.

Q. Does the Decommissioning Plan adequately provide a description of events which would trigger applicant-initiated decommissioning per AFIP requirement 6.3.13(a)1.iii?

A. The Decommissioning Plan references several such events which are also included in Exhibit A-13.3, Section 3. However, the Decommissioning Plan does not address how damage from extreme weather events or damage from human causes might lead to applicant-initiated decommissioning. Staff issued discovery to clarify those matters.[2] The Company's response describes that damage from weather events or human causes will be addressed on a case-by-case basis, and that damaged equipment will either be replaced or repaired. However, the Company's response also states that the Company does not plan to update the Decommissioning Plan with this information. While this response helps Staff understand how the Applicant plans to address these issues, in Staff's view it is

[2] Exhibit S-6.1, pp 1-2.

important for this information to be present in the Decommissioning Plan. Accordingly, I have included subitem 2.d.i to Proposed Minimum Condition (PMC) 2 to address this gap later in my testimony.

Q. How has the Company attempted to comply with the requirement to provide "[a] physical and chemical analysis of the soil, which can be used to ensure a soil is returned to a suitable condition" (AFIP section 6.3.13(a)1.iv), and what is Staff's assessment of those efforts?

A. The Company submitted the following to respond to this requirement:

1. In Exhibit A-1.4, the Company states "geotechnical studies were completed within the Project Area between fall 2024 and spring 2025 to establish baseline soil quality." These geotechnical studies were presented confidentially in the Geotechnical Reports in Exhibit A-1.4 Attachment A.
    a. Geotechnical Report, Section 1, does not state that establishing baseline soil quality was an objective and there is nothing in the report that establishes baseline soil quality or health. Instead, the intent of the geotechnical study was to determine whether soils can support structures, roads, and equipment. The laboratory analysis includes testing related to soil corrosivity but does not include testing related to pre-construction conditions for soil health parameters or constituents in materials that might be introduced with the project.
2. In Exhibit A-13.1, page 9, Section 3 descriptions for soil preparation and grading are provided, but it does not address the need for soil testing post decommissioning or commit to any potential soil decontamination.

It is my opinion that the physical and chemical analysis of the soil performed by the Company to date are not adequate to use to ensure soil is returned to a suitable condition per requirement 6.3.13(a)1.iv of the AFIP. Staff inquired further through discovery about the Company's plans for physical or chemical analyses, but these responses also do not meet the requirement, because they do not describe the use of soil assessment techniques which determine soil health, or test for the presence of hazardous substances which might be introduced to the site due to the project. Therefore, I have included subitem PMC 2.d.ii to address these issues later in my testimony.

Q. Does the Company address soil compaction, within the context of the soil physical and chemical baseline?

A. Staff submitted discovery to request more information regarding how it will be determined if grading and soil decompaction are required, and how soil decompaction will be conducted.[3] In my opinion, Company responses, which describe areas that will be subject to compaction, and how soil decompaction will be performed, are adequate but should be included in the Decommissioning Plan. Proposed Condition 2.d.viii.F includes a requirement to update the Decommissioning Plan with the information provided in response to Staff discovery.

Q. The AFIP requires that a list of known hazardous substances at the time of development be included in the application (Section 6.3.13(a)1.v). Does the Decommissioning Plan adequately address this requirement?

[3] Exhibit S-6.1, pp 15-16.

A. Yes, a Phase I Environmental Site Assessment (ESA) was completed in November 2024 and submitted as Exhibit A-1.4, Attachment B. The Phase I ESA concluded there were no recognized environmental conditions within or adjacent to the Project Area.

Q. Does the Decommissioning Plan include "A description of facilities that will be removed and those that will be kept in place including the reasoning and agreement with the property owner" per requirement 6.3.13(a)2.ii of the AFIP?

A. The Decommissioning Plan states that "Glacier Meadows anticipates that all above ground solar facilities and subsurface components to a depth of 4 feet below grade (or to a depth as otherwise specified within landowner agreements) will be removed as part of the decommissioning process."[4] The Company then states that access roads, the project substation, the O&M building, and gen-tie line will remain "if the property owner or utility owner has identified and approved a plan for in place re-use."[5] Finally, the Company states that underground collection lines "will remain in place as they will be installed to a depth greater than 4 feet below grade."[6] With the understanding that re-use plans may not yet be in place, the Decommissioning Plan does not meet the requirement to include "reasoning and agreement with the property owners" as it does not include any such reasoning or agreements. Company responses to Staff discovery provided additional detail,[7] but updates to the Decommissioning Plan are required to formalize the Company's responses. As a result, I am recommending that the Decommissioning Plan be updated to include "the reasoning and agreement with [each] property owner" for all

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[4] Exhibit A-13.1, p 6.
[5] *Id*.
[6] *Id*.
[7] Exhibit S-6.1, pp 2-7.

project related facilities and equipment intended to be kept in place, including specific locations and affected property owners, in subitem PMC 2.d.iii later in my testimony.

Q. Does the Decommissioning Plan include a description of removal methods and site clearance activities per AFIP requirement 6.3.13(a)2.iii?

A. Yes, but the Decommissioning Plan does not include removal of the project substation, Operation and Maintenance (O&M) Building, or gen-tie lines. Given that specific landowner agreements were not included in the plan, or such agreements may not yet be in place, it should be assumed that all materials will be removed and methodology should be included with the plan for removal. The Company's response to Staff discovery assures that these facilities "are not planned to be located on PA 116 enrolled land."[8]

Staff submitted discovery to determine whether identified and approved plans are in place to reuse these items/facilities.[9] The Company's response states that "if a plan for reuse is identified and approved, then the Project substation, operations and maintenance ("O&M") building, and gen-tie line will be left in place. If no such plan is identified and approved, then those facilities will be decommissioned."[10] Given that there are no identified and approved plans to leave these items/facilities in place, subitem PMC 2.d.v is included later in my testimony to update the Decommissioning Plan to include removal methods and site clearance activities for these items/facilities.

Q. Did the Company address where underground line entry and exit points from the ground will be, and how they will be addressed during decommissioning?

A. Yes. In response to Staff discovery, the Company indicated that

[8] *Id.*, at p 5.
[9] *Id.*, at pp 3 – 5.
[10] *Id.*

> [c]ollection line entrance/exit points will be located at the inverters and the substation, as shown in Exhibit A-1.1, sheets C.301-334. These locations are subject to change pending detailed design by the Project's Engineering, Procurement, and Construction ("EPC") contractor. The exact locations of the inverters/substation and collection line entrance/exit points will be finalized as part of the 100% design set anticipated immediately prior to commencement of construction (presently estimated in Q2 2027).[11]

This information is helpful but should be included in the Decommissioning Plan. Proposed subitem 2.d.vi is included later in this testimony to require an update of the Decommissioning Plan to include the information provided in response to Staff discovery.

Q. Does the Decommissioning Plan describe how decommissioning of infrastructure that is transferred to any new or subsequent owners occurs?

A. The Decommissioning Plan does not adequately explain the responsibility of decommissioning of facilities when facilities are transferred to another owner. It is unclear how the Company plans to ensure that facilities installed as a part of the project that are transferred to another owner will still be decommissioned to the appropriate standards. As a result, I am recommending Proposed Condition No. 23 later in my testimony that requires the Company to notify the Commission regarding responsibility to decommission upon any transfer to a new owner.

Q. Does the Decommissioning Plan include a description of anticipated hazardous substances used in the facility and removal from the site based upon what is known at the time the application is filed per AFIP requirement 6.3.13(a)2.iv?

[11] Exhibit S-6.1, p 6.

A. The Company's response to this requirement includes the statement "[a]t the time the application is filed, hazardous substances used in the facility and removal from the site are anticipated to include the use of petroleum fuels, lubricants, hydraulic fluids, and insulating oil."[12] The response clearly states that these substances are "anticipated," but does not include quantities, nor does the response include a description of hazardous substances contained in equipment, such as heavy metals and per- and polyfluoroalkyl substances (PFAS) chemicals in solar panels, nor any other hazardous substances that might be contained in other equipment which will be introduced solely for the project. Staff issued discovery to obtain more information regarding all anticipated hazardous substances used in the facility, including those contained in equipment; and to obtain more information regarding how hazardous substances outside of equipment will be stored.[13] In response, the Company provided information not included in Exhibit A-13.1 regarding sulfur hexafluoride (SF6), PFAS hazardous substances associated with equipment, a statement that "[p]resently, hazardous heavy metal materials are not anticipated to occur at the Project,"[14] and hazardous material handling and storage methods. This information should be included in the Decommissioning Plan. Proposed subitem PMC 2.d.vii is included later in this testimony to ensure the Decommissioning Plan adequately addresses hazardous substances.

Q. Does the Decommissioning Plan address the potential for contamination of property from solar panel components?

[12] Exhibit A-13.1, p 7.
[13] Exhibit S-6.1, pp 7-10.
[14] *Id.* at p 9.

A. Within the application, in Exhibit A-13.1, Section 2.iv, the Company states "hazardous substances will be coordinated with the involvement of certified hazardous waste disposal companies and will comply with applicable regulations, including Part 111 of NREPA." However, the Company did not address the potential for broken panels to leach hazardous materials such as heavy metals, PFAS substances, or any other hazardous materials contained in equipment. Over time, these substances could preclude soils from being returned to their original condition without remediation. Proposed subitem 2.d.viii outlines the requirements to ensure soils are restored to their original useful condition.

Q. Does the Decommissioning Plan include "[a] description of resources, conditions, or activities potentially affected by decommissioning and mitigation measures to be employed during the decommissioning process." per AFIP requirement 6.3.13(a)2.vi?

A. The Company's response to this requirement states that site restoration will comply with PA 116, describes equipment staging, vegetation removal and/or retention, and seeding but does not address potential issues such as noise, dust control, or traffic impact. Dust migration from demolition or removal operations could damage soils and vegetation which could violate, among other requirements and standards, the PA 233 requirement to return all participating properties to a useful condition similar to that which existed before construction. Specific dust control practices are generally required through the Soil Erosion and Sedimentation Control (SESC) permit, which the Applicant intends to secure prior to decommissioning. Staff's opinion is that the SESC permit process is sufficient to address dust control measures. This permit is regulated by EGLE and administered by counties, typically through the county drain commission. Staff submitted discovery to request more information on this topic.[15] The Company response describes how dust, noise, and traffic impacts will be mitigated. The response is adequate but should be included in the Decommissioning Plan. Proposed subitem PMC 2.d.iv is included later in this testimony to require inclusion of this information in the Decommissioning Plan.

Q. Per AFIP 6.3.13(a)3., does the Company address the requirement to provide "[a] description of the site restoration plan and process including PA 116 restoration requirements, including soil to be returned to at least as good or better condition?"

A. The Decommissioning Plan does not include a reference to, nor does it commit to, any kind of post decommissioning soil sampling that could be used to demonstrate compliance with this requirement. In response to Staff discovery, the Company confirmed that it "will undertake soil sampling after decommissioning activities are complete to confirm post project conditions match the initial physical and chemical analysis if required as a condition for a certificate for the Project."[16] Proposed subitem PMC 2.d.viii would require more details on what is planned during or immediately after decommissioning. Staff expects that the Company will collect representative soil samples and analyze them for contaminants in the same manner as needs to be conducted for its Baseline Soil Health Survey Plan, per condition subitem PMC 2.d.viii.A. This includes any hazardous substances addressed by Natural Resources and Environmental Protection Act (NREPA) Part 201. The constituents examined will include hazardous

[15] Exhibit S-6.1, pp 12-13.
[16] Exhibit S-6.1, pp 14-15.

substances relevant to solar panels or any other hazardous material containing equipment introduced to the site due to the project.

Q. What restoration standard does Staff recommend, should post-decommissioning soil testing discover hazardous constituents introduced to the site due to the project?

A. Staff recommends that the Company compare the results of such surveying and testing to the baseline, as well as to environmental standards in state and federal law, such as R 299.46 generic soil cleanup criteria for the residential category - Table 2. Staff finds the unrestricted residential cleanup criteria provided in this table prudent because (1) they are the same criteria utilized to establish whether a property is regulated pursuant to Part 201 of NREPA; and (2) utilizing criteria less stringent than unrestricted residential cleanup criteria can result in restrictions on future land uses. Therefore, utilizing residential cleanup criteria preserves equal opportunity for future land uses compared to the pre-project conditions. Following lesser cleanup standards may limit future zoning, and lead to restrictions against certain land uses. These restrictions would need to be placed on the property deed(s) to ensure restrictions remain in place.[17] Should results exceed the values allowed under law or the pre-construction values, the Company should remediate such issues as part of its obligation to return the property to "a useful condition similar to that which existed before construction."[18] Soil testing and accordant action to return the soil to a useful condition, including hazardous material remediation steps as necessary, are critical to ensure project decommissioning according to the standard for the

[17] https://www.michigan.gov/-/media/Project/Websites/egle/Documents/Programs/RRD/Due-Care/Part-201-Citizens-Guide.pdf?rev=d11790e216704725a7005a8cbcfb6c21#:%7E:text=If%20you%20are%20cleaning%20up,now%20and%20in%20the%20future. June 3, 2026.

[18] PA 233 Sec. 225(1)(r).

decommissioning plan set by PA 233. If a certificate is approved for the project, I recommend a condition be applied to clearly require these steps, provided as proposed subitem PMC 2.d.viii below.

Q. AFIP section 6.3.13(a)5.ii requires an assurance statement from the Company which confirms that the Company will perform restoration "in accordance with agreements with landowners." Has the Company met this requirement?

A. The Company's response to this section states that "restoration measures agreed to by individual landowners will be respected, as described in each landowner agreement."[19] The term "respected" does not necessarily represent a firm commitment, nor does it explicitly state that the Company intends to adhere to these agreements. Furthermore, the next sentence in the response states "The land will be returned to its pre-construction condition to the extent practicable…" Using the phrase, "to the extent practicable" again does not imply firm commitment to adhere to landowner agreements. Proposed subitem PMC 2.d.ix below addresses this.

Q. AFIP section 6.3.13(a)5.iii requires "a commitment and plan and coordinate with landowners and ALUs, to the extent possible, prior to beginning decommissioning activities." Has the Company met these requirements within the Decommissioning Plan?

A. The Company's response to this requirement is that it "commits to planning and coordinating with landowners, ALUs, and local governments not exercising zoning authority in which all or part of a proposed energy facility will be located (including Lenawee County, Blissfield Township, and Deerfield Township) to the extent possible,

[19] Exhibit A-13.1, p 10.

prior to beginning decommissioning activities."[20] This response does not include a plan. The AFIP requires "[a] commitment and plan…" not a commitment "to" plan. The response again includes non-committal language by using the phrase "to the extent possible." This concern is addressed in proposed subitem PMC 2.d.x.

Q. Please summarize your findings regarding Section 8 from Exhibit A-13.2 of the Decommissioning Cost Estimate regarding the subtraction of salvage values from the total cost of disassembly, transport and disposal as it relates to the financial assurance requirements of both PA 233 and PA 116/PA 230 for solar facilities.

A. Section 8 from Exhibit A-13.2 of the Decommissioning Cost Estimate deducts the equipment and material salvage value from the total decommissioning cost as allowed by PA 233. But in Staff's understanding, this deduction is not allowed by PA 116/PA 230 land for solar facilities.

PA 230 contains requirements related to estimating the amount of decommissioning financial assurance. Unlike PA 233, no mention is made of whether salvage value may be subtracted from the cost of decommissioning when determining the level of financial assurance that is required to be provided. However, MDARD's public-facing materials covering placement of solar on PA 116 land clearly state that MDARD does not permit the subtraction of salvage value from the cost of decommissioning of solar facilities placed on PA 116 land.[21] MDARD requires financial assurance covering the cost to decommission the solar facility and return the land to agricultural use. It does

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[20] *Id.*, at p 11.

[21] https://www.michigan.gov/media/Project/Websites/mdard/documents/environment/farmland/pa_116_solar_panel_faq.pdf?rev=3ba761e4f0ba44bfab9e94c618779ee5, item 7. Accessed March 3, 2026.

not allow salvage value to be used to lower the amount of the bond or letter of credit. The decommissioning financial assurance required under PA 116/PA 230 is the cost to disassemble, remove, etc. that part of the solar facility which will be located on PA 116 land and restoration of that land to a condition which permits agricultural use.

Q. What options does the Company have to comply with the different decommissioning cost requirements regarding deduction of salvage costs on PA 116 vs. non-PA 116 land?

A. In general, the Company has two options to comply with the requirement to exclude salvage value of equipment on PA 116 land – it can provide decommissioning financial assurance to the Commission and MDARD separately, with the latter reflecting the no salvage value requirement, or it can provide financial assurance to the Commission in an amount covering both the Commission's and MDARD's requirements. Staff opines that the latter approach should generally be preferable, because it would allow the Company to avoid providing financial assurance for site restoration for PA 116 parcels to both the MPSC and to MDARD.[22]

Even under the latter approach, some decisions remain within the Company's discretion to resolve. For example, the Company could provide a single instrument of financial assurance to the Commission combining its obligations, or two separate instruments, subject to similar but distinct conditions of use in the final project Decommissioning Agreement.

Q. Do the Company's current decommissioning materials ensure that it will abide the MDARD requirement against deduction of salvage value for facilities on PA 116 land?

[22] Per AFIP 8.3.2, "Applicants with facilities which include PA 116 farmland may, in consultation with MDARD, provide financial assurance pursuant to PA 233 which satisfies the requirements of both PA 116 and PA 233."

A. If the Company chooses to bond with MDARD separately for its PA 116 land, MDARD will enforce its own requirement related to salvage value. However, if the Company chooses to bond with the Commission in a manner consistent with AFIP 8.3.2(b), the Commission should adopt MDARD's standards, to ensure sufficient financial assurance is provided.

Accordingly, Staff suggests the following condition be applied:

> 29: If the Applicant chooses to fulfill its financial assurance obligations under Public Act 230 of 2023 through provision of financial assurance to the Commission, the Applicant is prohibited from subtracting salvage value from the cost to decommission facilities on land enrolled in Michigan's Farmland and Open Space Preservation Program in all future decommissioning materials produced for the project. This includes updates to decommissioning cost estimates and decommissioning financial assurance, and within the Decommissioning Agreement.

Q. What financial assurance mechanism is proposed by the Company?

A. The Decommissioning Agreement (Section 4.2) states that a bond, parent company guarantee, or an irrevocable letter of credit may be used at the Applicant's sole discretion. However, Staff notes that under PA 116/PA 230 a parent company guarantee must not be used for financial assurance. Therefore, consistent with the above explanation, the Company may:

- Provide a separate financial assurance for PA 116 /PA 230 lands to MDARD, which must not be in the form of a parent company guarantee or deduct salvage values; or
- Provide either a bond or irrevocable letter of credit that does not subtract costs for salvage value to the Commission that meets the requirements of both PA 116/PA 230 and PA 233.

Q. Are you recommending amended conditions related to the Decommissioning Plan?

A. Yes, I have the following recommendations relating to the Decommissioning Plan, as also provided in Exhibit S-2.1:

PMC No. 2: Prior to the preconstruction meeting, the Applicant is required to:

2.d. File an updated decommissioning plan, an updated third-party decommission cost estimate, and a demonstration of financial assurance acquired to date. Such materials must reflect the planned facility layout, equipment quantities, disturbed acreage, and participating parcels; must follow the requirements of AFIP Exhibit A-13 and Section 8 and be cross-consistent in commitments, plans, and financial estimates; and must account for the land enrolled in the Michigan Farmland Open Space Preservation Program (commonly referred to as PA 116), consistent with the requirements of other conditions of this certificate. The decommissioning plan shall also include the following:

i. Address how damage from extreme weather events or damage from human causes will be addressed, and/or how they might lead to applicant-initiated decommissioning.

ii. Include additional soil sampling at a rate of no less than one (1) sample per 40 acres for the following:

A. Phosphorus, potassium, calcium, magnesium, sodium, sulfur, manganese, copper, and zinc; pH and acidity; soil organic matter content, cation exchange capacity, and topsoil depth.

B. Any hazardous substances contained in equipment which is introduced to the site by the Company.

iii. Include "the reasoning and agreement with [each] property owner" for all project related facilities and equipment intended to be kept in place, including specific locations and affected property owners.

iv. Include procedures to address issues of dust, noise, and traffic in accordance with section 6.3.13(a)1 of the AFIP.

v. Include removal methods and site clearance activities for the project substation, O&M building, gen-tie line, and points where underground collection lines enter or exit the ground at a depth less than four feet.

vi. Include the locations of the inverters, substation, and collection line entrance and exit points as part of the 100% design set anticipated immediately prior to commencement of construction consistent with the

Company's response to discovery request GM-6-7 and 8 of Exhibit S-6.1.[23]

vii. Include a list of all hazardous substances including those in facility equipment (including, but not limited to solar panels and switchgears), and all information as provided in response to discovery request GM-6-11 of Exhibit S-6.1, as well as any updated information as applicable.[24]

viii. Include the following commitments and information in its final decommissioning plan and agreement, as well as a description of how it will meet such commitments:

A. A commitment to repeat its pre-application soil sampling, in a manner consistent with the baseline soil health survey plan, at decommissioning.

B. A commitment to restoration of the project area, including soils, to a useful condition similar to that which existed before construction.

C. Perform remediation of any hazardous substances introduced by project activities through a release, as defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 42 U.S.C. § 9601(14) and (22).

D. Utilize, at minimum, the Generic Residential Cleanup Criteria in R 299.46 under Part 201 of the Natural Resources and Environmental Protection Act (NREPA) as necessary to ensure the soil restoration standard in PA 233 is met with regard to the identified hazardous substances of concern.

E. Comply with any applicable federal environmental laws or environmental laws of this State regarding remediation which are more stringent than the criteria set forth in R 299.46.

F. Describe how required soil decompaction and grading will be identified and performed as provided in response to question 17 of Exhibit S-6.1.[25]

ix. Regarding commitments and agreements with property owners, the Company is required to replace the language in Section 6.b. of Exhibit A-

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[23] Exhibit S-6.1, pp 5-6.
[24] Exhibit S-6.1, pp 7-10.
[25] *Id.*, at pp 15-16.

13.1, with "The restoration measures agreed to by individual landowners will conform to the terms of each written landowner agreement. The land will be returned to its pre-construction condition leaving any desirable infrastructure as requested by the subsequent landowner."

x. The Company is required to update the language in Section 6.c. of Exhibit A-13.1, by either removing the phrase "to the extent possible" entirely, or use language that might apply to specific situations where planning and coordinating with landowners is not possible. In addition, the Company is required to include a plan, per AFIP section 6.3.13(a)5.iii, including the method of how landowners, ALUs, and local governments will be coordinated with and timelines and methods of communication.

23. Upon any transfer in ownership of project property or facilities, the Company is required to identify the new entity responsible for decommissioning of such property or facilities, through a letter submitted to the docket in the instant case, in addition to the Applicant's commitments as provided in Exhibit A-13.1, page 4, "Change of Ownership".

Q. Does this conclude your direct testimony?

A. Yes.

S T A T E O F M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of GLACIER MEADOWS SOLAR, LLC for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.	))))))	Case No. U-22044

QUALIFICATIONS AND DIRECT TESTIMONY OF

KATHERINE KRUPP

MICHIGAN PUBLIC SERVICE COMMISSION

July 20, 2026

QUALIFICATIONS OF KATHERINE KRUPP
CASE NUMBER U-22044
PART I

Q. Please state your full name and business address.

A. My name is Katherine Krupp (she/her/hers), and my business address is 7109 West Saginaw Highway, Lansing, Michigan 48917.

Q. By whom are you employed and in what capacity?

A. I am employed by the Michigan Public Service Commission (MPSC or Commission) as a Departmental Analyst in the Renewable Energy and Storage Siting Section of the Energy Operations Division.

Q. Please describe your relevant educational background.

A. I earned a Bachelor of Science in Environmental Science from Wayne State University in December of 2014. Select areas of study included environmental systems analysis, environmental fate and transport of pollutants, and ecosystem and landscape ecology. I earned a Master of Science in Geology from Wayne State University in August of 2017. Select areas of study included groundwater, environmental geochemistry, and nuclear geology.

Q. What is your relevant professional background?

A. From March 2014 through August 2017 I was employed as a Research Assistant at Wayne State University with a focus on applied isotopic geochemistry. My undergraduate research was supported by a U.S. National Science Foundation Research Experiences for Undergraduates (NSF REU) grant and resulted in a peer-reviewed scientific publication in American Mineralogist of which I was first author. My graduate research was supported by the U.S. NSF and was conducted in coordination with U.S. GEOTRACES, a program dedicated to the study of the marine biogeochemical cycles of trace elements and their isotopes. My research resulted in a Master of Science Thesis and contributed to a peer-reviewed scientific publication that I co-authored.

From January 2017 through May 2017 I was employed as an Adjunct Professor at Wayne State University. My responsibilities included teaching an introductory geology course, formulating course schedules, composing exams and determining final grades. From August 2017 through October 2024, I was employed at a waste treatment, storage, and disposal facility, which was known as U.S. Ecology upon my date of hire but was later acquired by Republic Services, Inc. in 2022. I transitioned to different roles during my time at the company, starting as a Chemist I, then Waste Approvals Coordinator, Chemist II, Environmental Compliance Specialist, and finally, Environmental Compliance Manager. Through these roles I gained several years of experience in federal, state, and local environmental regulations and permitting requirements, including those established through the Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); Spill Prevention, Control and Countermeasure (SPCC); and Michigan's Natural Resources and Environmental Protection Act (NREPA).

Q. Have you received any work-related training since starting your employment at the MPSC?

A. Yes. The trainings I have completed so far include:

- Planning and Zoning Essentials (American Planning Association, Michigan Chapter). Certificate of Completion received December 2024.
- Site Plan Review (American Planning Association, Michigan Chapter). Certificate of Completion received December 2024.

- Renewable Energy Zoning and Permitting Essential Principles (EUCI). Certificate of Completion received January 2025. Courses conducted by EUCI (formerly Electric Utility Consultants, Inc.) are fully accredited through the International Association for Continuing Education and Training (IACET). EUCI is registered with the National Association of State Boards of Accountancy (NASBA) as a sponsor of continuing professional education on the National Registry of CPE Sponsors.
- MI Citizen Planner (Michigan State University Extension). Citizen Planner Certificate received February 2025.
- Endangered Species Act, Wetlands, and Stormwater Regulatory Compliance for Energy and Utilities (EUCI). Certificate of Completion received February 2025.
- Northern Michigan Environmental Conference and Workshops (Michigan Department of Environment, Great Lakes, and Energy). Certificate of Attendance received March 2025.
- Michigan State University Extension Michigan Pollinator Habitat Planning Scorecard for Solar Sites Certification Program (Michigan State University Extension). Certificate of Completion received March 2025.
- The Role of the Utility Regulator (National Association of Regulatory Utility Commissioners (NARUC)). Certificate of Completion received May 2025.
- Endangered Species Act Compliance for Energy Projects (EUCI). Certificate of Completion received April 2026.
- ASTM E1527 Phase I Environmental Site Assessment for Commercial Real Estate (American Society for Testing and Materials (ASTM)). Certificate of Completion received May 2026.

- ASTM E1903 Phase II Environmental Site Assessment (ASTM). Certificate of Completion received May 2026.

Q. Have you previously presented testimony before the Commission?

A. Yes. I have submitted testimony and exhibits in the following case:

Case No.	Case Description
U-21932	Acceleration Solar, LLC, PA 233 Certificate Case
U-21962	Washtenaw Solar Energy, LLC, PA 233 Certificate Case
U-21956	Otisville PV I, LLC, PA 233 Certificate Case
U-22003	Rouget Road Solar Farm, LLC, PA 233 Certificate Case
U-22004	Headland Solar, LLC, PA 233 Certificate Case

DIRECT TESTIMONY OF KATHERINE KRUPP
CASE NUMBER U-22044
PART II

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to present the MPSC Staff's (Staff) positions on certain issues in the matter of Glacier Meadows Solar, LLC's (Applicant or Company) request for a certificate under Public Act 233 (PA 233) of 2023, Michigan Compiled Laws (MCL) 460.1221, *et seq.* I will specifically address requirements pertaining to environmental and natural resource impacts and environmental compliance, based on MCL 460.1225(1)(f), 460.1225(1)(i), 460.1225(1)(k), 460.1225(1)(l), 460.1225(1)(p), 460.1226(6) in part, 460.1226(7)(b), 460.1226(7)(c), and 460.1226(8)(a)(vi), as well as Staff's review of the following exhibits:

- **Exhibit A-1.14:** Unanticipated Discoveries Plan
- **Exhibit A-4.4:** Agency Consultations
- **Exhibit A-6.1:** Soil Survey and Economic Report
- **Exhibit A-6.2:** Environmental Compliance Report
- **Exhibit A-6.3:** Permit List and Status,
- **Exhibit A-6.4**: Stormwater Management Plan, and
- **Exhibit A-14:** Conditions, with respect to PMC No. 3 and 15

Q. Describe the sources used to assist you in preparing this testimony.

A. The sources used to assist in preparing this testimony include the "application" which refers to all direct testimony and exhibits submitted to the docket by the Applicant in support of its initial request for siting certification of the proposed Glacier Meadows Solar Project, which will be referred to as the "project". The project includes approximately 1,090 acres of fenced-in areas; the "project area" refers to approximately 2,213 acres of privately-owned participating land.[1]

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I am sponsoring the following exhibits:

- **Exhibit S-7.1:** Staff's Seventh Discovery Request, Items 16 through 21, and Company Response
- **Exhibit S-7.2:** Bald Eagle Management Guidelines
- **Exhibit S-7.3:** *Protecting Michigan's Wetlands: A Guide for Local Governments*
- **Exhibit S-7.4 PUBLIC:** Staff's Fifth Discovery Request and Company Response
- **Exhibit S-7.4 CONFIDENTIAL:** Staff's Fifth Discovery Request and Company Response
- **Exhibit S-7.5:** Resilient Connected Networks
- **Exhibit S-7.6:** Midwest Conservation Blueprint
- **Exhibit S-7.7:** Staff's Third Discovery Request, Items 18, 19, and Company Response
- **Exhibit S-7.8:** Staff's Ninth Discovery Request, Items 1 through 6, and Company Response
- **Exhibit S-7.9:** Company's First Supplemental Response to Staff's Seventh Discovery Request, Items 19 and 21

Q. Where these exhibits prepared by you or under your supervision?

A. Yes.

Q. How is your testimony organized?

[1] Direct testimony of Company witness Marla Korpar, p 5.

A. First, I address environmental and natural resource impacts. This topic has three subsections: expected direct impacts, the unanticipated discoveries plan, and the stormwater management plan. Next, I discuss environmental compliance, including soil and economic survey reporting, agency consultations, state and federal environmental regulations and permitting, and the Michigan Environmental Protection Act (MEPA). Last, I discuss two proposed minimum conditions (PMC), No. 3 and 15.

Environmental and Natural Resource Impact

A. Expected Direct Impacts

Q. What is the scope of your review regarding the expected direct impact of the project on the environment and natural resources?

A. I reviewed the expected direct impacts of the project on the environment and natural resources, as described in the Environmental Compliance Report (ECR) provided in Exhibit A-6.2, sponsored by Company witness Kate Brennan. I also reviewed the relevant portions of the direct testimony of Company witness Brennan, and the Applicant's responses to Staff discovery requests, specifically those included as Exhibits S-7.1 through S-7.9, relevant to this topic. I reviewed these materials for compliance with the requirements set forth in section 6.3.6(a)(2)(i) of the Commission's Application Filing Instructions and Procedures (AFIP) and the standards established by MCL 460.1225(1)(f) and MCL 460.1226(7)(c).

Q. What requirements do MCL 460.1225(1)(f), MCL 460.1226(7)(c), and section 6.3.6(a)(2)(i) of the AFIP establish for the approval of siting certification by the Commission?

A. MCL 460.1225(1)(f) requires that an application for a certificate submitted to the Commission under section 222(2) contain "[t]he expected direct impacts of the proposed energy facility on the environment and natural resources and how the applicant intends to address and mitigate these impacts." This requirement is also described in section 6.3.6(a)(2)(i) of the AFIP.

MCL 460.1226(7)(c) states that the Commission shall grant the application and issue a certificate if it determines, in part, that "[t]he applicant has considered and addressed impacts to the environment and natural resources, including, but not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species."

Q. Does the Applicant provide a description of the expected direct impacts of the proposed energy facility on the environment and natural resources, including, but not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species?

A. Yes. The ECR identifies environmental impacts in five areas: protected aquatic resources, protected species and habitats, cultural resources, protected lands, and waste and pollution prevention.[2] Regarding the environment and natural resources as listed in the above question and identified in MCL 460.1226(7)(c): sensitive waterways, wetlands, and floodplains are addressed in the protected and aquatic resources section; sensitive habitats and threatened or endangered species are addressed in the protected species and habitats section; wildlife corridors and parks are addressed in the

[2] Exhibit A-6.2, p 1.

protected lands section; and historic and cultural sites are addressed in the cultural resources section.[3] These topics are supplemented with information from other exhibits and discovery, as referenced throughout this testimony.

Q. Does the ECR provide a description of how expected direct impacts will be addressed and mitigated?

A. Staff's understanding at this time is that, yes, the ECR provides a description of expected direct impacts and how they will be addressed and mitigated, but notes that this understanding is based on clarifying evidence that the application does not readily provide. In order for Staff to make its determination regarding compliance with MCL 460.1226(7)(c), sufficient evidence must be provided, including a complete ECR for the entire proposed project footprint. The survey reports attached to the ECR for at least the wetland delineation report, habitat assessment report, and vegetation community assessment report showed study areas excluding a parcel on which the project proposes construction of a generation tie line to the point of interconnection – parcel number DEA-225-4800-00.[4] Staff offered a side-by-side reference of the project area with proposed facilities next to this study area for ease of reference in its seventh discovery request for the Applicant to explain this apparent discrepancy.[5] In its response, the Applicant clarified that wetland and habitat assessments were conducted for this parcel but not included in the 2025 version of the study area.[6] In support of this assertion, the Applicant provided figures of a habitat assessment study area delineated in 2022 and a wetland

[3] *Id.*
[4] Exhibit A-6.2, Attachment A, Figure 1; Attachment C, Figure 1, Attachment D, Figure 1.
[5] Exhibit S-7.1, p 10.
[6] Exhibit S-7.9, pp 7 – 8.

assessment study area delineated in 2023 which included the parcel with proposed limits of disturbance for generation tie line construction (hereto referred to as the "gen-tie LOD"); the response did not include any associated reports or materials in addition to these study areas, but stated that "the wetland delineation and habitat assessment appropriately focused on areas within the LOD, and all areas with potential for impact have been evaluated."[7] Therefore, Staff needed to verify whether the reports provided in ECR Attachments A, C, and D incorporate data from these older referenced study areas. Staff found that the reports provided in the aforementioned attachments do reference survey work performed in 2022, 2024, and 2025.[8] Furthermore, Attachment B of the ECR includes field-delineated water resources for a study area which includes the gen-tie LOD.[9] Therefore, the following testimony discusses identified impacts and how the Applicant intends to address and mitigate impacts, as applicable, for each area of concern listed in MCL 460.1226(7)(c), with the understanding that the evidence provided in the application refers to the entire proposed project area, including the gen-tie LOD. The following testimony will address the evidence in the below order:

(1) Sensitive Habitats and Waterways

(2) Wetlands (including waterways and waterbodies) and Floodplains[10]

(3) Wildlife Corridors

(4) Parks and Historic and Cultural Sites

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[7] *Id.*, at pp 3 – 9.
[8] Exhibit A-6.2, pp 22, 297, and 357.
[9] *Id.*, at pp 4 and 292.
[10] This differentiation of waterways is to account for "sensitive waterways," interpreted by Staff as specific waterways protected by environmental regulations including those discussed within area (1) as listed above, and other waterways, to be discussed along with wetlands, waterbodies and floodplains, in order to succinctly discuss water resources.

(5) Threatened or Endangered Species (TES)

Following these areas, (6) Other Environmental Considerations discusses additional relevant topics addressed in the ECR.

<u>(1) Sensitive Habitats and Waterways</u>

Q. Did the Applicant identify whether sensitive habitats and waterways exist within the project area?

A. Yes. To address sensitive habitats, the Applicant provided an assessment of project impact to species of concern and/or their habitats.[11] This is further discussed below, as it pertains to TES. The ECR confirms that no critical habitat was identified for the study area.[12] Furthermore, there are no Coastal Zone Management Areas, Great Lakes, or Critical Dune Areas within the project area.[13] Regarding sensitive waterways, the ECR indicates that no wild and scenic rivers or state designated rivers were identified within the project area, based on data retrieved from publicly-available national and state database resources, respectively.[14]

Q. Were additional evaluations made related to project impact on other potentially sensitive habitats?

A. Yes. The ECR also provides assessments on bald and golden eagle and migratory bird habitats. Based on habitat suitability models, bald eagles, golden eagles and 7 other migratory birds could potentially occur in the study area.[15] Results of the field habitat assessments found potentially suitable habitat for migratory birds to utilize during the

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[11] Exhibit A-6.2, p 6.
[12] *Id.*
[13] *Id.*, at p 5.
[14] *Id.*, at p 3.
[15] *Id.*, at p 301.

nesting season or migration.[16] Specifically, suitable habitat was identified in forested areas, though agricultural areas could provide suitable habitat during the breeding season.[17]

Q. Please describe the Applicant's expected direct impacts on bald and golden eagles, migratory birds, and how the Applicant intends to address and mitigate these impacts.

A. The ECR reports that impact is not expected to result in impacts to bald eagles, golden eagles, or migratory birds with the implementation of avoidance and minimization measures.[18] These measures include limiting tree clearing to a planned approximate 0.5-acres, practicing tree clearing outside of migratory bird season and peak nesting season in Michigan (with clearing occurring August 16 – March 31), and following Avian Power Line Interaction Committee suggested practices to reduce the risk of bird collisions and electrocution.[19]

Q. Does Staff have a position regarding the Applicant's approach to bald eagle and migratory bird impact mitigation strategies?

A. Yes. Staff supports the use of the proposed best management practices (BMPs) for impact avoidance and minimization during the proposed project activities. Additionally, Staff requested whether the Applicant would implement further measures in the event that an eagle nest was observed during construction activities, specifically, applying a 660-ft buffer from the nest.[20] The Applicant objected based on the position that no bald eagle nests are present within 660-ft of the project area. However, it committed to

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[16] *Id.*, at p 308.
[17] *Id.*, at pp 306 – 308.
[18] *Id.*, at pp 9 – 10.
[19] *Id.*
[20] Exhibit S-7.1, p 6.

complying with required guidance and direction from the USFWS if any nests are identified, which includes the implementation of this 660-ft buffer.[21] Therefore, based on the preceding, Staff did not identify any issues with the Applicant's approach to bald eagle, golden eagle, and migratory bird impacts and mitigation.

Wetlands, Waterways, Waterbodies, and Floodplains

Q. Did the Applicant identify wetlands (including waterways and waterbodies) and floodplains within the proposed project area?

A. Yes. The ECR provides a wetland delineation report that evaluated water resources.[22] According to the report, the project area contains 23 wetlands totaling 8.8 acres (of which 20 are assumed regulated); 12 stream segments totaling 33,199.48 linear feet (all of which are assumed regulated); 5 manmade ditches (all assumed non-regulated); and 9 drains/culverts.[23] Regarding floodplains, the northwestern region of the project area includes an area of land located within a 1% annual chance floodplain (i.e. 100-year floodplain).[24] There is also a regulatory floodway outside of the project area, to the west near River Raisin.[25]

Q. Please describe the Applicant's expected direct impacts to wetlands, waterways, and floodplains, and how the Applicant intends to address and mitigate these impacts.

A. The ECR reports minimal expected direct impacts to wetlands, waterbodies, and drainage features, primarily through avoidance measures, specifically through the proposed implementation of 100-foot setbacks from wetlands, 50-foot setbacks from streams, and a

[21] Exhibit S-7.2, p 16.
[22] Exhibit A-6.2, p 4.
[23] *Id.*
[24] *Id.*, at p 57.
[25] *Id.*

300-ft setback from the top bank of the River Raisin.[26] The ECR notes that while all infrastructure and facilities, whether temporary or permanent, are currently sited to meet these setbacks, minor adjustments may occur based on final project design.[27] Michigan's NREPA does not include any required setbacks for regulated wetlands and streams, therefore the Company's proposed setbacks are considered voluntary. However, according to the guidelines published in *Protecting Michigan's Wetlands: A Guide for Local Governments*, 25-to-40-foot buffers are recommended, depending on the size of the features.[28] Furthermore, setbacks are anticipated to be applied to both regulated and non-regulated wetlands and streams.[29] The ECR proposes that impacts are limited to underground collection line installations beneath drainage features and access road entrances.[30] Collection line installation impacts will be minimized by utilizing horizontal directional drilling (HDD). A frac-out plan will also be implemented to address and minimize any backflow of drilling fluids used in HDD if needed.[31] Again, the ECR states that all project infrastructure is sited to meet voluntary setbacks at the time of application, however, access road entrances are also anticipated to impact water resources.[32] This appears to be primarily due to connecting access roads to existing roads via culverts to account for drainage features running parallel to the existing roadways.[33]

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[26] *Id.*, at p 5.
[27] *Id.*
[28] Exhibit S-7.3, p 40.
[29] Exhibit S-7.1, p 3.
[30] Exhibit A-6.2, p 5.
[31] Exhibit S-7.1, pp 3 – 4.
[32] Exhibit A-6.2, p 5.
[33] Exhibit S-7.1, p 4 and Exhibit A-1.1, Sheets C C.315 (EC-05), C.317 (EC-04), C.323 (EC-04), C.325 (EC-02), and C.329 (EC-03).

Based on the preceding, Staff did not identify any issues with the Applicant's approach to wetland and waterway impact and mitigation strategies.

Last, regarding floodplains, impacts to the identified 100-year floodplain are not anticipated by the Applicant based on the current design due to avoidance; the 100-year floodplain overlap is limited to the northwestern edge of the project footprint and does not appear to overlap with the proposed limits of disturbance or permanent infrastructure.[34] Furthermore, the project area does not contain state-regulated floodplains (i.e. drainage areas of 2 square miles or more).[35] The nearest regulatory floodway is outside the project area, near the River Raisin.[36] Based on this information, as well as stormwater considerations discussed below, Staff has not identified any issues with the Applicant's approach to floodplain impact and mitigation.

<u>Wildlife Corridors</u>

Q. Did the Applicant identify whether wildlife corridors exist within the proposed project area?

A. Yes. The ECR reports that no known wildlife corridors exist in the project area; however, species may use the area while migrating.[37] Staff conducted additional research by evaluating the project area against the Resilient Land Mapping Tool and Michigan Conservation Blueprint.[38,39] Both of these tools are recommended by the Michigan Department of Natural Resources (MDNR) for evaluating the presence of wildlife

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[34] Exhibit A-1.1, Sheet No. C.305 Rev A.
[35] Exhibit S-7.1, p 4.
[36] Exhibit S-6.2, p 57.
[37] *Id.*, at p 11.
[38] Resilient Land Mapping Tool. February 6, 2026.
[39] Midwest Conservation Blueprint Viewer and Feedback App. February 6, 2026.

corridors.[40] The Resilient Land Mapping Tool provides a layer indicating "Resilient Connected Networks." This layer represents connected networks of climate resilient sites that could contribute to protecting biodiversity if conserved.[41] Based on a review of this data, resilient connected networks are not present within the project area.[42] The Midwest Conservation Blueprint is a basemap of priority lands and waters for conservation, developed by utilizing several input data layers, including climate resiliency, wetlands, forests, and terrestrial habitat connectivity.[43] Based on Staff's review of this data, the project and the proposed limits of disturbance predominantly avoid "conservation priority" areas, with some overlap within the project boundary but outside the limits of disturbance.[44] Last, linear wetlands, streams, drainages, and hedgerows create natural corridors often used by wildlife to move around the landscape.[45] These natural features are present in and around the project area but again, predominantly outside the proposed limits of disturbance.[46] Based on the preceding information in, Staff's opinion is that the site design as proposed considers avoidance of wildlife corridors, but owing simply to the large size of the project area, it is still possible for wildlife corridors or local wildlife migration to exist within the project area, consistent with the Applicant's assessment.

Q. Please describe the Applicant's expected direct impacts to wildlife corridors and how the Applicant intends to address and mitigate these impacts.

[40] Voluntary best management practices for solar energy and wildlife in Michigan. March 17, 2026.
[41] Recognized Biodiversity Value - Overview. February 6, 2026.
[42] Exhibit S-7.5.
[43] https://mcap-fws.hub.arcgis.com/pages/midwest-conservation-blueprint. February 19, 2026.
[44] Exhibit S-7.6.
[45] Voluntary best management practices for solar energy and wildlife in Michigan. March 17, 2026.
[46] Exhibit A-1.1, Sheet C.100 Rev A.

A. The ECR reports that no direct impact is anticipated due to its lack of identifying wildlife corridors in the area, but will implement wildlife BMPs such as wildlife-friendly fencing and soil erosion and sediment control (SESC) measures to address potential impacts.[47] Staff also notes that the Applicant must comply with applicable state regulations, including applicable fencing requirements set forth in section 2.11 of the Wildlife Conservation Order, which is under the jurisdiction of the MDNR. Therefore, the Applicant should have measures in place to comply with the order, likely including prevention and response measures for entrapped or injured wildlife such as deer. Through discovery, the Applicant stated it does not believe section 2.11 of the Wildlife Conservation Order is applicable to the project, stating that fencing must comply with federal requirements governing physical security perimeters for bulk electric system facilities subject to NERC.[48] Staff agrees with the Applicant that the project is subject to these stricter fencing standards, but notes that section 2.11(6)(b) of the MDNR Wildlife Conservation Order does provide for exclusion structures that do not kill, harm, capture, trap, or collect animals as permissible if the structure is constructed to protect public safety. Furthermore, section 2.11(7) allows for permit issuance for the taking of deer, elk, bear, or moose by fence if deemed advisable for public health or safety reasons. Therefore, Staff finds that project should still comply with section 2.11 given the exemptions and permitting that appear consistent with projects subject to stricter security requirements such as NERC. Accordingly, the project should implement an entrapment plan to address the potential for harm to wildlife from fencing, including

[47] Exhibit A-6.2, pp 11 – 12.
[48] Exhibit S-7.9, p 1. "NERC" refers to the North American Electric Reliability Corporation.

measures to obtain appropriate permits in the event of wildlife entrapment. To ensure the project meets section 2.11 requirements as applicable, Staff recommends adding the following subitem to PMC No. 2 condition if the project is approved, shown as PMC No. 2.k in Exhibit S-2.1:

> 2.k: To address deer entrapment, the Applicant must develop a facility-specific fencing and entrapment plan prior to the start of operations, including the following:
>
> i. Regular inspections of fences for damage that could allow deer to enter over or under the fence.
> ii. Frequent inspections for entrapped deer.
> iii. Protocols that minimize the time that gates to the facility are left open.
> iv. Contingency plans for removing deer that have become entrapped.
> v. Contact numbers for the local Department of Natural Resources Wildlife Division Office.

<u>Parks, Historic Sites, and Cultural Sites</u>

Q. Did the Applicant identify whether parks, historic sites, and cultural sites exist within the proposed project area?

A. Yes. No parks or public lands were identified based on publicly available data.[49] Regarding historic and cultural sites, the ECR describes both desktop and field survey efforts performed to identify historic archaeological and architectural resources. Based on the results, there is 1 potential archaeological site within the project's currently proposed limits of disturbance and 28 architectural resources within the project area.[50] The Applicant is still in consultation with SHPO regarding the results of the archaeological resource study, noting that

> [t]he timing and completion of SHPO consultation is dependent upon SHPO's review of the Project's archaeological report. If SHPO concurs

[49] Exhibit A-6.2, pp 11 – 12.
[50] *Id.*

> with the results and recommendations within the archaeological report, then Glacier Meadows anticipates that SHPO consultation will be complete prior to the closure of the evidentiary record. If SHPO does not concur with the archaeological report and requires further field surveys or reporting, then SHPO consultation may continue past the closure of the evidentiary record.[51]

Q. Please describe the Applicant's expected direct impacts to historic and cultural sites, and how the Applicant intends to address and mitigate these impacts.

A. The ECR states that no direct impacts are expected on historic or cultural sites.[52] For architectural resources, the Applicant received SHPO's concurrence with its proposed recommendations as provided in the Applicant's Architectural Survey (located in Attachment F of E-6.2). Based on this report and SHPO's concurrence, no architectural resources will be adversely affected by the proposed project and no further survey or mitigation measures are required.[53] Regarding archaeological resources, while the review with SHPO is ongoing, the ECR indicates that it will comply with SHPO's recommendation to avoid impacts if needed.[54] Additionally, the Applicant will implement an Unanticipated Discoveries Plan (UDP), which includes measures to address and mitigate impacts to cultural materials or human remains discovered during project activities. Staff acknowledges the ongoing status of the cultural resource survey and coordination with SHPO at this time. Because impacts have been considered and addressed at the time of application, and avoidance, minimization, and mitigation measures will be conducted based on SHPO recommendations and the UDP, Staff's opinion is that the Applicant's approach to both architectural and archaeological historic

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[51] S-7.7, p 1.
[52] Exhibit A-6.2, p 11.
[53] *Id.*, at p 431.
[54] *Id.*, at p 11.

and cultural sites complies with MCL 460.1226(7)(c). However, to confirm the expected approach is implemented for the project, Staff recommends the inclusion of a condition requiring a finalized UDP and SHPO materials prior to construction; that condition is included later in this testimony.

Threatened and Endangered Species

Q. Did the Applicant identify whether threatened or endangered species exist within the proposed project area?

A. Yes. Based on the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) habitat suitability modeling tool as well as Michigan Natural Features Inventory (MNFI) species' occurrence records, the following species have the potential to occur:[55]

Table 1 Federal and State Listed Species Identified in Initial Project Area Evaluations

Common Name (Scientific Name)	Source	Federal Status[1]	State Status[1]	Determination of Effect
Indiana bat (*Myotis sodalis*)	IPaC / MNFI	E	E	No effect*. P/A surveys conducted at the site indicated a probable absence of Indiana bats. Further, the Project will require minimal tree clearing (<0.5 acre).
Northern long-eared bat (*Myotis septentrionalis*)	MNFI	E	T	No effect. P/A surveys conducted at the site indicated a probable absence of northern long-eared bats. Further, the Project will require minimal tree clearing (<0.5 acre).
Evening bat (*Nycticeius humeralis*)	MNFI	--	T	No effect. P/A surveys conducted at the site indicated a probable absence of evening bats. Further, the Project will require minimal tree clearing (<0.5 acre).
Eastern massasauga (*Sistrurus catenatus*)	IPaC	T	--	Not likely to adversely affect*. Unlikely to occur due to lack of suitable habitat. Further, the Project has agreed to implement conservation measures to avoid adverse effects to eastern massasauga – see Section 4.1.4.

[55] *Id*., at pp 7 – 8; Table 1 is directly copied from the Applicant's exhibit A-6.2.

Common Name (Scientific Name)	Source	Federal Status[1]	State Status[1]	Determination of Effect
Rayed bean (*Villosa fabalis*)	IPaC / MNFI	E	E	No effect*. The Project will not impact River Raisin and its riparian corridor, which provide habitat to rayed bean.
Purple wartyback (*Cyclonaias tuberculata*)	MNFI	--	T	No effect. Unlikely to occur due to lack of suitable habitat.
Northern riffleshell (*Epioblasma rangiana*)	MNFI	E	E	No effect. Unlikely to occur due to lack of suitable habitat.
Black sandshell (*Ligumia recta*)	MNFI	--	T	No effect. Unlikely to occur due to lack of suitable habitat.
Round hickorynut (*Obovaria subrotunda*)	MNFI	T	E	No effect. Unlikely to occur due to lack of suitable habitat.
Karner blue butterfly (*Lycaeides melissa samuelis*)	IPaC	E	T	No effect*. Unlikely to occur due to lack of suitable habitat.
Wild hyacinth (*Camassia scilloides*)	MNFI	--	T	No effect. Unlikely to occur due to lack of suitable habitat.
Raven's-foot sedge (*Carex crus-corvi*)	MNFI	--	E	No effect. Unlikely to occur due to lack of suitable habitat.
Smooth ruellia (*Ruellia strepens*)	MNFI	--	E	No effect. Unlikely to occur due to lack of suitable habitat.
Cup plant (*Silphium perfoliatum*)	MNFI	--	T	No effect. The Project will avoid impacts to forested wetland areas that may provide suitable habitat for cup plant.
Toadshade (*Trillium sessile*)	MNFI	--	T	No effect. The Project will avoid impacts to forested wetland areas that may provide suitable habitat for toadshade.

[1]E = Endangered; T = Threatened; EP = Experimental Population, PT = Proposed Threatened

* Indicates the determination of effect provided by the Project's USFWS Michigan Determination Key (DKey), included in **Exhibit A-4.4**, Attachment A.

The Applicant also conducted field surveys which found minimal suitable habitat for the above species listed, but did note that some of the forested areas were suitable for listed bat species during summer roosting activities.[56] Additionally, it appears that forested wetland in the study area may be suitable for toadshade, cup plant, and rayed bean.[57]

[56] *Id.*, at p 6.
[57] *Id.*, at pp 7 – 8.

Q. Please describe the Applicant's expected direct impacts to threatened or endangered species and how the Applicant intends to address and mitigate these impacts.

A. The ECR states that impacts on federal- and state- threatened and endangered species are not anticipated from project activities due to avoidance and minimization efforts.[58] Species where suitable habitat was not ruled out will be addressed through BMPs, including but not limited to: avoidance of forested wetlands suitable for the toadshade and cup plant; avoiding physical disturbances to wildlife; minimizing tree removal and practicing seasonal clearing outside of bird nesting and breeding seasons; and implementing Michigan Determination Key (DKey) measures for the eastern Massasauga rattlesnake.[59] Staff notes that seasonal clearing for roosting bats is not considered, which is typically constrained to October 1 through March 31 in Michigan; however, the Applicant's proposed window of tree clearing to avoid migratory birds is similar (August 16 – March 31). Regarding the fact of constraints related to birds allowing for clearing during August and September, whereas it does not for bats, Staff notes that tree clearing is limited to <0.5-acres, and the habitat study report indicated the probable absence of Indiana and northern long-eared bats.[60,61]

Q. Does Staff take a position regarding the Applicant's approach to threatened and endangered species impact and mitigation?

A. Staff's overall position regarding the Applicant's approach to threatened and endangered species impact and mitigation is that impacts have been considered and addressed by the

[58] *Id.*, at p 9.
[59] *Id.*
[60] *Id.*
[61] *Id.*, at p 308.

Applicant. The preceding discussion demonstrates that listed species have been identified, habitat has been assessed for suitability, and appropriate avoidance and minimization measures, developed in consultation with the proper agency and/or agency resources, will be implemented to mitigate impacts. Regarding federal-listed species, the Applicant's consultation with USFWS indicated no effect on the species identified, with the exception of the eastern Massasauga rattlesnake, which received a "NLAA" (not likely to adversely affect) determination, but is mitigated through the implementation of conservation measures.[62] Accordingly, Staff proposes a new condition, Condition No. 24, requiring the Applicant to comply with these conservation measures, as provided in Exhibit S-2.1 and introduced later in this testimony. Regarding state-listed species, Exhibit A-4.4 indicates that the MDNR reviewed the project's MNFI results and confirmed that no further consultation was required to determine "No Effects" on state-listed species.[63]

<u>Other Environment and Natural Resource Considerations</u>

Q. What additional environmental or natural resource impacts are addressed by the Applicant?

A. The ECR also contains narrative regarding the project's impacts on farmland, waste/materials management, pollution prevention, air quality, and SESC plans.

Q. Does Staff have any comments on these topics?

A. Yes. First, Staff notes that farmland impact is addressed in the direct testimony of Staff witness Austin Glass. Next, the Applicant's proposed measures to address

[62] Exhibit A-4.4, pp 39 and 45.
[63] *Id.*, at pp 107 – 108.

waste/materials management appear reasonable and consistent with state and federal environmental regulations. Furthermore, air quality impacts are not anticipated with the implementation of BMPs such as dust suppression and equipment maintenance.[64] Specific dust suppressant BMPs are anticipated to include water application to exposed soil surfaces, active work areas, and access roads as needed; covering stockpiles with tarps; stabilization of inactive disturbed areas; and applying chemical dust suppressants as determined by the engineering, procurement, and construction (EPC) contractor.[65] According to the Applicant's response, the EPC will utilize chemical dust suppressants appropriately and according to applicable environmental standards.[66] While no safety data sheet was provided for chemical dust suppressants, and no product has been selected for the project yet, the response indicates that these suppressants typically include magnesium chloride or similar.[67] The detrimental effects of fugitive dust generation at construction sites can include impacts to water resources, damage to livestock and crop yields, topsoil erosion, transport and deposition during stormwater events, and threats to human health through inhalation of small particulate matter; therefore Staff supports the utilization of appropriate suppression methods.[68,69] However, Staff encourages the Applicant to utilize products with minimal environmental impacts, such as the aforementioned deliquescent salts, or eco-friendly polymer emulsions. Furthermore, Staff's opinion is that utilizing petroleum-based binders or products with the potential to

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[64] Exhibit A-6.2, p 15.
[65] Exhibit S-7.1, pp 8 – 9.
[66] *Id.*, at p 9.
[67] *Id.*
[68] https://www.epa.gov/system/files/documents/2021-11/bmp-dust-control.pdf. July 2, 2026.
[69] https://www.michigan.gov/-/media/Project/Websites/egle/Documents/Regulatory-Assistance/Guidebooks/Fug-Dust-Man.pdf?rev=1bffa8aa79524fdabe234a7c6bdcc82e. July 2, 2026.

pollute the environment directly conflict with the requirements of MCL 460.1226(7)(c) and therefore would result in noncompliance with a siting certificate, if issued. Therefore, Staff proposes the following condition, Condition No. 30 as shown in Exhibit S-2.1:

> 30. The Applicant shall not use dust suppressant products with petroleum-based binders or hazardous constituents as defined by state and federal regulations.

Last, regarding pollution prevention, the ECR provides evidence that it will implement applicable state-regulated plans such as a Spill Prevention, Control, and Countermeasures (SPCC) Plan and Pollution Incident Prevention Plan (PIPP) to address any spills.[70] In terms of potential pollution from photovoltaic (PV) panels, the Applicant has not yet procured PV modules for the project, but provided a sample safety data sheet representative of the anticipated modules to be installed which lists cadmium compounds as 0.15% of the product composition by weight.[71] [redacted][72] The Toxic Characteristic Leaching Procedure, or TCLP, is a standard method used to determine if a waste exceeds the EPA-defined thresholds for certain toxic substances, including heavy metals such as lead, barium, silver, and cadmium.[73] For solids such as

[70] Exhibit A-6.2, p 13.
[71] Exhibit S-7.4, pp 10 – 18.
[72] Exhibit S-7.4, p 19.
[73] 40 CFR 261.24.

PV panels, the procedure analyzes the leachate from a sample that has been reduced in particle size, such as through crushing, cutting, or grinding.[74] Waste that exceeds TCLP thresholds is considered hazardous.[75] Staff notes that the Applicant is responsible for managing its waste PV panels in accordance with federal RCRA regulations, under which the above-referenced TCLP thresholds are regulated. In addition to properly handling and disposing of hazardous waste, the Applicant should also properly handle any releases or suspected releases of hazardous substances to the environment, including hazardous substances from broken panels with the potential to leach into soil and groundwater. This concern intersects with the Applicant's Decommissioning Plan, which must include a plan to return the properties to a useful condition similar to that which existed before construction.[76] Staff's opinion is that this plan should therefore include remediation of any contaminants introduced to soil and groundwater from project activities. Accordingly, Staff witness Jonathan Kroeker proposed several additional required subitems to PMC No. 2 including, in part, the requirement for the decommissioning plan to commit to performing remediation of any hazardous substances introduced by project activities through a release, at minimum, to the Generic Residential Cleanup Criteria in R 299.46 under Part 201 of the Natural Resources and Environmental Protection Act (NREPA) as necessary to ensure the soil restoration standard in PA 233 is met with regard to the identified hazardous substances of concern. It is reasonable to require the utilization of residential criteria provided in Table 2 of R 299.46, as these criteria are typically used to establish whether a property is regulated pursuant to Part 201 of

[74] https://www.epa.gov/sites/default/files/2015-12/documents/1311.pdf. February 2, 2026.
[75] 40 CFR 261.24.
[76] MCL 460.1225(1)(r).

NREPA. Furthermore, utilizing criteria less stringent than unrestricted residential cleanup criteria could result in restrictions on future land uses, leading to limits on future appropriate zoning and restrictions on property deed(s).[77] The aforementioned conditions sponsored by Staff witness Kroeker prevent the project from creating new restrictions on future land uses by utilizing residential cleanup criteria that preserves equal opportunity for future land uses compared to the pre-project conditions.

Q. Did Staff review any additional specific project activities with respect to the project's potential impacts on the environment and natural resources?

A. Yes. Based on Exhibit A-4.4 (Agency Consultations), Staff is aware that the Applicant consulted with two pipeline companies regarding potential crossings in the proposed project area. These pipelines should be avoided to prevent direct impacts which could lead to environmental or natural resource impacts, such as through the puncturing of a pipeline during construction activities. Therefore, Staff requested verification from the Applicant that it would meet additional measures to avoid, minimize, and mitigate impacts to the pipelines, to the environment, and to natural resources as a result of conducting project activities within their proximity.[78] The Applicant confirmed that, regarding Panhandle (one of the two companies), it conducted field investigations to ensure Panhandle's requirements will be met, including with respect to setbacks from pipelines in siting and underground installation methods.[79] Regarding Southern

[77] https://www.michigan.gov/-/media/Project/Websites/egle/Documents/Programs/RRD/Due-Care/Part-201-Citizens-Guide.pdf?rev=d11790e216704725a7005a8cbcfb6c21#:%7E:text=If%20you%20are%20cleaning%20up,now%20and%20in%20the%20future. June 3, 2026.
[78] Exhibit S-7.8, p 3.
[79] *Id.,* at pp 3 – 4.

Michigan (the second of the two companies), the Applicant is required to submit documentation to the company, further described later in this testimony, which will include setback requirements, crossing depths, and mitigation measures.[80] Staff, therefore, defers to the respective companies' requirements for pipeline impact avoidance and mitigation strategies, and based on the evidence provided in Exhibit A-4.4 and discovery, understands that the Applicant will adhere to all company requirements in this regard.[81]

Summary of Staff Position on Expected Direct Impacts

Q. What are Staff's conclusions regarding the project's environmental and natural resource impacts?

A. Based on the preceding, Staff's position is that the record is sufficient to demonstrate compliance with the standards established in MCL 460.1226(7)(c), which requires the Applicant to consider and address impacts to the environment and natural resources. The referenced "environment or natural resources" include, but are not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species.[82]

Furthermore, Staff understands the Applicant's mitigation strategies in several areas, including but not limited to sensitive habitats, water resources, wildlife corridors, cultural resources, threatened and endangered species, waste and pollution prevention, and air quality, are achieved through the implementation of BMPs. Staff's understanding

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[80] *Id.*, at p 4.
[81] *Id.,* at pp 3 – 4; and Exhibit A-4.4, pp 1804 – 1855.
[82] MCL 460.1226(7)(c).

is that the Applicant must follow all proposed BMPs to remain compliant with an issued siting certificate and MCL 460.1226(7)(c).

Last, Staff's understanding is that any potentially identified impact to cultural resources will be addressed according to SHPO's recommendations and evidence of such will be provided in accordance with proposed subitem (c) to PMC No. 2 as proposed later in this testimony.

Q. Are any additional conditions recommended, should the Commission choose to approve siting certification for the project?

A. Yes. Related to this portion of my testimony, Staff proposes the addition of the following subitem to the modified PMC No. 2, pertaining to plans and reports to be submitted prior to the pre-construction meeting, and one new condition, both also listed in the Staff Conditions, Exhibit S-2.1:

> 2.g: Provide any plans required under Natural Resources and Environmental Protection Act (NREPA), upon completion by the Applicant. This includes Spill Prevention Control, and Countermeasure Plan (SPCC), Pollution Incident Prevention Plan (PIPP), Soil Erosion and Sedimentation Control (SESC) plans, and Stormwater Pollution and Prevention Plans (SWPPP), as applicable.

Furthermore, Staff proposes the following new condition, Condition No. 24, as shown in Exhibit S-2.1:

> 24: The Applicant is required to comply with the conservation measures as stated in Exhibit A-4.4, p 51 and copied below:
>
> **Summary of conservation measures for your project** You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.
> **Eastern massasauga**: Materials used for erosion control and site restoration must be wildlife friendly. Do not use erosion control products

containing plastic mesh netting or other similar material that could entangle eastern massasauga rattlesnake (EMR). Several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. Others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free.

Eastern massasauga: To increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at https://www.fws.gov/media/easternmassasauga- rattlesnake-fact-sheet), and watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://www.youtube.com/watch?v=-PFnXe_e02w).

Eastern massasauga: During project implementation, report sightings of any federally listed species, including EMR, to the Service within 24 hours.

Eastern massasauga: The project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR.

B. Unanticipated Discoveries Plan

Q. What is the scope of your review regarding the UDP proposed for the project by the Applicant?

A. I reviewed the Applicant's proposed UDP as provided in Exhibit A-1.14, from sponsoring Company witness Brennan. I also reviewed the relevant portions of the direct testimony of Company witness Brennan. These materials were reviewed for compliance with the requirements set forth in the AFIP in section 7.14.

Q. What requirements does section 7.14 of the AFIP establish for the approval of siting certification by the Commission?

A. According to section 7.14 of the AFIP, the Applicant must submit a UDP that addresses: (1) the anticipated impacts and plans to mitigate impacts to the environment and natural resources, including, but not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species, (2) a set of procedures to be followed if cultural resources are discovered, with specified materials included, (3) a set of procedures to be followed if human remains are discovered, and (4) a contact list with specified contacts included.

Q. Does the proposed UDP address these areas identified by section 7.14 of the AFIP?

A. Regarding item (1) above, Exhibit A-1.14 references Exhibit A-6.2, where environmental assessments, anticipated direct impacts, and proposed avoidance, minimization and mitigation measures are provided.[83] Regarding items (2) and (3), procedures to be followed upon discovery of cultural resources or human remains are included in the UDP, and contain instructions for identification, avoidance, and notification protocols.[84] Regarding item (4), the UDP includes a contact list with representatives from SHPO and Tribal Historic Preservation Offices (THPO) included, as well as local emergency contacts (County Sheriff and Medical Examiner).[85] Staff notes that the Qualified Archaeologist contact information is not listed as of the time of application, and accordingly would recommend that a finalized UDP be filed to the docket prior to construction consistent with Staff's amended condition language in 2(c) (presented below).

Q. Does Staff take a position regarding the Applicant's proposed UDP?

A. Yes. Staff's position is that the Applicant's UDP meets the requirements established in section 7.14 of the AFIP.

Q. Are any additional evaluations or conditions recommended, should the Commission choose to approve siting certification for the project?

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[83] Exhibit A-1.14, p 1.
[84] *Id.*, at pp 1 – 4.
[85] *Id.*, at pp 4 – 6.

A. Yes. First, Staff would like to point out that the UDP as proposed by the Applicant currently requires SHPO and/or THPO to respond to potentially identified cultural resource discoveries within 15 days of being provided an avoidance plan.[86] Through discovery, the Applicant indicated that this 15-day turnaround time was drafted in the absence of SHPO and/or THPO approval, but was proposed in the UDP to prevent significant delays in construction activities.[87] The Applicant stated it would consider alternative turnaround times by SHPO and/or THPO as requested.[88] Because Staff defers to SHPO in determining acceptable measures regarding cultural resource identification, mitigation, and avoidance, it is concerned that this 15-day turnaround time may result in bypassing standards considered acceptable for the purpose of meeting MCL 460.1226(7)(c). To address this matter, as well as the ongoing surveys conducted in coordination with SHPO, Staff recommends adding the following subitem to the modified PMC No. 2, associated with this portion of my testimony, as shown in Exhibit S-2.1:

> 2.c: Provide the final version of the Unanticipated Discoveries Plan (A-1.14), including a mutually agreed upon turnaround time and/or process for the State Historic Preservation Office (SHPO) to respond to discoveries and avoidance plans submitted by the Applicant; and materials resulting from SHPO's completed review of the project, including evidence that any identified impacts to cultural resources have been addressed according to SHPO's recommendations in the final site plan.

C. Stormwater Management Plan

Q. What is the scope of your review regarding the Stormwater Mitigation Plan (SMP) proposed for the project by the Applicant?

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[86] *Id.*, at p 3.
[87] Exhibit S-7.8, p 1.
[88] *Id.*

A. I reviewed the Applicant's proposed SMP as provided in Exhibit A-6.4, from sponsoring Company witness Trevor Brown. I also reviewed the relevant portions of the direct testimony of Company witnesses Brown and August Christensen. These materials were reviewed for compliance with the requirements set forth in MCL 460.1225(1)(p) and in section 6.3.6(a)(4) of the AFIP.

Q. What requirements do MCL 460.1225(1)(p) and section 6.3.6(a)(4) of the AFIP establish for the approval of siting certification by the Commission?

A. MCL 460.1225(1)(p) requires that an application contain a stormwater assessment and plan to minimize, mitigate, and repair (MMR) any drainage impacts at the expense of the electric provider or independent power producer (IPP) (i.e., the Applicant). It also requires the Applicant to make reasonable efforts to consult with the county drain commissioner prior to submitting the application and include evidence of those efforts in the application.

The AFIP requires the following:

(1) The Company must conduct a stormwater assessment and prepare a plan that describes measures to minimize, mitigate, and repair any drainage impacts. The assessment and plan may be preliminary.

(2) The Plan shall address any guidance from consultation with the county drain commissioner and shall include the date and time the consultation took place, who participated in the consultation, and copies of correspondence listing necessary permits, next steps, and associated timeline for each consultation.

The latter requirement aligns with AFIP requirement 6.3.4(a)(4) which requires a summary of Agency Consultations, in which the County Drain Commission is specifically included within the list of agencies, addressed later in my testimony.

Q. Did the Applicant provide a stormwater assessment and MMR plan in accordance with MCL 460.1225(1)(p) and section 6.3.6(a)(4) of the AFIP?

A. Yes. Regarding a stormwater assessment, Exhibit A-6.4 provides an SMP that incorporates the stormwater assessment, including an analysis of slopes, soils, land cover, and existing drainage patterns.[89] The runoff rates are reportedly expected to decrease from existing conditions and meet the rate control requirements of Lenawee County.[90] This reduction in stormwater runoff is based on practices such as replacing row crops with native meadow grasses and pollinator species, and utilizing culverts and vegetated buffers.[91]

Regarding an MMR plan, Exhibit A-6.4 provides an assessment form as provided by the Drain Commissioner's Office and plan in Attachment B.[92] Proposed MMR strategies address minimization through conversion of vegetation cover as described above; mitigation by utilization of the SESC plan and BMPs to limit erosion and provide treatment for runoff; and design repairs to restore affected drains to their original condition.[93] The MMR plan does not explicitly state that all measures to address any drainage impacts will be conducted at the expense of the Applicant, however, Staff assumes based on the description of the proposed measures that the Applicant will be

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[89] Exhibit A-6.4, p 2.
[90] *Id.*, at p 17.
[91] Direct testimony of Company witness Christensen, p 8.
[92] Exhibit A-6.4, at pp 154 – 160.
[93] *Id.*, at pp 155 – 156.

responsible for implementing them and for the associated expenses. Staff's position is that the Applicant has provided a reasonable stormwater assessment and plan to minimize, mitigate, and repair any drainage impacts so long as the MMR plan is implemented at the expense of the Applicant.

Q. Did the Company address guidance received by the Lenawee County Drain Commission Office (LCDCO)?

A. Company witness Brown stated that they confirmed that the LCDCO's direction was incorporated into the SMP and that the plans demonstrate the drain commission office's approved approach.[94] Correspondence between the Applicant and the LCDCO are provided in Attachment C of Exhibit A-6.4.

Q. Does Staff have any recommendations related to stormwater mitigation?

No. At this time, the stormwater mitigation plan is preliminary. Staff notes that the Applicant has demonstrated a willingness to consult with the LCDCO on establishing its SMP based on the copies of correspondence provided in Exhibit A-6.4. Staff further notes that the issuance of the SESC permit and drain crossing permit are under the jurisdiction of the LCDCO and must be issued prior to construction on the portion of the project for which the permit is necessary, as prescribed in PMC No. 15.

Q. Are any additional evaluations or conditions recommended, should the Commission choose to approve siting certification for the project?

A. Yes. Regarding conditions, the Company provided an agreement to PMC No. 3, a commitment to repairing or replacing public and private drainage systems, which is

[94] Direct testimony of Company witness Brown, pp 3 – 4.

consistent with Staff's modified PMC No. 3, as shown in Exhibit S-2.1, and proposed as follows:

> 3: The Applicant is required to repair and replace all public and private drainage systems damaged from construction or decommissioning processes. Drainage systems already addressed in separate agreements with the Applicant will be repaired or replaced pursuant to those pre-existing agreements. This shall include county or intercounty drains in the event there are established county or intercounty drains that are part of the public drainage system.

Furthermore, Staff proposes a new condition, Condition No. 25:

> Condition No. 25: The final Stormwater Mitigation Plan must not be inconsistent with the requirements as described in the "Rules of the Lenawee County Drain Commissioner".

II. <u>Environmental Compliance</u>

A. <u>Soil and Economic Survey Report</u>

Q. What is the scope of your review regarding the soil and economic survey report?

A. I reviewed the Applicant's soil and economic survey report as provided in Exhibit A-6.1, from sponsoring Company witness Marla Korpar. I also reviewed the relevant portions of the direct testimony of Company witness Korpar. These materials were reviewed for compliance with section 6.3.6(a)(1) of the AFIP, and the standard established by MCL 460.1225(1)(l).

Q. What do section 6.3.6(a)(1) of the AFIP and the standard established by MCL 460.1225(1)(l) require for the approval of siting certification by the Commission?

A. Both section 6.3.6(a)(1) of the AFIP and the standard established by MCL 460.1225(1)(l) require the Applicant to include in its filing a soil and economic survey report. The statute further requires the Applicant to obtain the report under section 60303 of NREPA for the county where the proposed energy facility will be located.

Q. Please describe the standard which Staff used to determine whether the soil and economic survey report provided by the Applicant satisfies the requirement set forth in MCL 460.1225(1)(l).

A. Based on Staff's current knowledge, soil and economic survey reports are provided by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). MCL 324.60301 and MCL 324.301(b) indicate that conducting this survey is the duty of the MDNR; however, per MCL 324.60306 the work may be developed in coordination with institutions of the U.S. government. Per MCL 324.60304, the surveys should be made by county and available in every public library in the state of Michigan. Based on consultation with the MDNR, a search of the Library of Michigan online catalogue and the Internet Archive digital library, and by visiting a sample public library, it appears that the available county soil surveys are produced by the USDA-NRCS. While archived reports are available through the aforementioned resources, the most up-to-date versions of these surveys are available online through the USDA-NRCS Web Soil Survey resource. Therefore, to satisfy the requirement set forth in MCL 460.1225(1)(l), the Applicant must submit USDA-NRCS soil surveys for the county, at minimum, either obtained through the use of a public resource, such as a county office or public library if available, or through utilization of the USDA-NRCS Web Soil Survey to retrieve the relevant data.

Q. Has the Applicant satisfied the requirement of MCL 460.1225(1)(l), in Staff's opinion?

A. Yes. The Applicant utilized the custom soil survey resource report from the USDA-NRCS Web Soil Survey for both the project area and Lenawee County as a whole.[95] Therefore, Staff's position is that the Applicant has met the above-described standard and the requirement of MCL 460.1225(1)(l).

B. <u>Agency Consultations</u>

Q. What is the scope of your review regarding the Applicant's agency consultations?

A. I reviewed the Applicant's summary of agency consultations as provided in Exhibit A-4.4, from sponsoring Company witnesses Brennan and Korpar. I also reviewed the relevant portions of the direct testimony of Company witnesses Brennan and Korpar and the Applicant's responses to Staff discovery, specifically those presented as Staff Exhibits S-7.4 and S-7.7, relevant to this topic. These materials were reviewed against section 6.3.4(a)(4) of the AFIP and the standards established by MCL 460.1225(1)(k).

Q. What do section 6.3.4(a)(4) of the AFIP and MCL 460.1225(1)(k) establish for the application of siting certification by the Commission?

A. MCL 460.1225(1)(k) requires "[e]vidence of consultation, before submission of the application, with the department of environment, Great Lakes, and energy and other relevant state and federal agencies before submitting the application, including, but not limited to, the department of natural resources and the department of agriculture and rural development."

Section 6.3.4(a)(4) of the AFIP describes further information, including a summary for each federal, state and local agency consultation that includes, at a

[95] Direct testimony of Company witness Korpar, p 18; Exhibit A-6.1, pp 3 – 315.

minimum: the date and time the consultation took place; who participated in the consultation; and copies of correspondence listing necessary permits, next steps, and associated timeline, along with a list of potential agencies for consultation. This section also lists several potential agencies for consultation. If the Applicant deemed any of these agencies unnecessary to consult with, justification must be provided.

Q. Based on Exhibit A-4.4, did the Applicant consult all applicable agencies listed in section 6.3.4(a)(4) of the AFIP?

A. Yes. The table of contents provided in Exhibit A-4.4 lists all agencies and organizations consulted by the Applicant and is consistent with the list of agencies in section 6.3.4(a)(4) of the AFIP.[96] For each agency consultation, the exhibit includes an outline with the date, venue, time, parties, summary of consultation, permits, next steps, and associated timeline.[97] Copies of correspondences are included as attachments to the exhibit.[98]

Q. Did the Applicant consult with other agencies or organizations not referenced in section 6.3.4(a)(4) of the AFIP?

A. Yes. The Applicant also reached out to twelve federally recognized tribes through contacting their THPOs.[99] Evidence of these consultations is provided in Exhibit A-4.5, discussed further in the direct testimony of Staff witness Sarah Mullkoff. Additionally, consultation with local emergency and fire response departments/offices is documented in Exhibit A-1.9 and further discussed in the direct testimony of Staff witness Travis Warner.

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[96] Exhibit A-4.4, p 1.
[97] *Id.*, at pp 3 – 29.
[98] *Id.,* at pp 30 – 1855.
[99] Exhibit A-4.5, pp 1 – 75.

Q. Did Staff find any additional notable outcomes of agency or organization consultations based on the information provided in Exhibit A-4.4?

A. Yes. Notable outcomes, for purposes of this review, refer to but are not limited to consultations resulting in substantive action items, such as agreements, permit applications, or final determinations made by or pending from agencies. Staff would like to note the following:

- The Applicant anticipates obtaining Minor Permits (MP) from EGLE, and will conduct another pre-application meeting with EGLE prior to construction. Furthermore, EGLE may determine a 401 Water Quality Certification is necessary.[100]
- At the time of application, the project's finalized archaeological survey report was submitted to SHPO, which resulted in an additional information request by the agency, and the additional information was submitted for SHPO review on July 1, 2026.[101]
- The Applicant will need to obtain a railroad crossing agreement from Genesee & Wyoming Railroad Services, Inc.[102]
- The Applicant is coordinating with Panhandle Eastern Pipeline Company, via Energy Transfer (Panhandle), regarding locations where the project proposes to cross rights of way originally vested by Panhandle.[103] Requirements for crossings include but are not limited to surveying

[100] Exhibit A-4.4, p 14.
[101] Exhibit S-7.8, pp 2 – 3.
[102] Exhibit A-4.4, p 24.
[103] *Id.*, at p 26.

pipeline locations; providing a 150-foot separation between the pipeline and solar facilities; boring requirements; pre/post-construction surveys; and a letter of no objection (LONO) or encroachment and crossing agreements.[104]

- The Applicant is also coordinating with Southern Michigan Pipeline, and is required to provide a LONO.[105]

Q. Are any additional evaluations or conditions recommended, should the Commission choose to approve siting certification for the project?

A. Yes. To address the ongoing SHPO consultation, Staff recommends the Commission adopt a subitem added to modified PMC No. 2.c, which is provided in full above.

C. <u>State and Federal Environmental Regulations and Permitting</u>

Q. What is the scope of your review regarding the project's compliance with state and federal environmental regulations and permitting?

A. I reviewed the Applicant's description of environmental compliance in Exhibit A-6.2, from sponsoring Company witness Brennan. I also reviewed the permit list presented in Exhibit A-6.3, from sponsoring Company witness Brennan. Furthermore, I reviewed the relevant portions of the direct testimony of Company witness Brennan, and the Applicant's responses to Staff discovery, specifically those presented as Staff Exhibits S-7.1, S-7.4, S-7.7, and S-7.8, relevant to this topic. These materials were reviewed against sections 6.3.6(a)(2) and 6.3.6(a)(3) of the AFIP, and the standards established by 460.1225(1)(i) and MCL 460.1226(8)(a)(vi).

[104] *Id.*, at p 27.
[105] *Id.*, at p 29.

Q. What requirements do sections 6.3.6(a)(2) and 6.3.6(a)(3) of the AFIP, MCL 460.1225(1)(i), and MCL 460.1226(8)(a)(vi) establish for the approval of siting certification by the Commission?

A. Section 6.3.6(a)(2) of the AFIP requires that the ECR describe "how the proposed facility will comply with applicable state and federal laws, including the Natural Resources and Environmental Protection Act (NREPA), Public Act 451 of 1994, and section 1705(2) of the Michigan Environmental Protection Act (MEPA), MCL 324.1705(2)."

Section 6.3.6(a)(3) requires the Applicant to provide a list of all permits necessary prior to construction, including the subject triggering the permit; the responsible agency; the date or proposed date of application submittal; and the date or expected date of permit issuance. Permits received prior to filing the application must be provided by the Applicant as well.

MCL 460.1225(1)(i) requires the Applicant to provide "[a] statement and reasonable evidence that the proposed energy facility will not commence commercial operation until it complies with applicable state and federal environmental laws, including, but not limited to, the natural resources and environmental protection act, 1994 PA 451, MCL 324.101 to 324.90106."

MCL 460.1226(8)(a)(vi) requires that a "solar energy facility will comply with any more stringent requirements adopted by the commission. Before adopting such requirements, the commission must determine that the requirements are necessary for compliance with state or federal environmental regulations."

Q. Does the Applicant describe how the proposed facility will comply with applicable environmental state and federal laws?

A. Yes. The ECR in Exhibit A-6.2 provides a narrative of the environmental and natural resources considered, the associated regulation and responsible agency, and how the Applicant intends to meet compliance as applicable.

Q. Does Staff have any remarks regarding the applicant's obligations relative to other agencies?

A. Yes. First, with respect to EGLE permitting for drain crossings, it is Staff's understanding that the Applicant would endeavor to apply for a minor project (MP) permit.[106] The MP permits are typically issued by EGLE for common activities with relatively less impact than a project requiring an individual permit review, but still requiring a site visit by EGLE. For instance, utility crossings can be permitted by MPs, subject to review by EGLE. Therefore, the project's potential impacts to drains should be less impactful relative to EGLE's tiered permitting standards.

Second, while the Applicant has indicated that Waters of the United States (WOTUS) are included in the project area, it does not anticipate review by the United States Army Corps of Engineers (USACE) will be required.[107] Based on Staff's knowledge of these permitting requirements, it generally agrees with the Applicant that federal review is not likely based on the project design as proposed in this application. However, if future agency consultations confirm impacts to Section 10 waters or trigger federal permitting, the MPSC may require reevaluation of the project after certification in accordance with section 7.6(b) of the AFIP.[108] The Applicant has also indicated the

[106] Exhibit A-4.4, p 14.
[107] Exhibit S-7.4, pp 7 – 8.
[108] Section 10 waters are commonly known as navigable waters of the United States and are subject to Section 10 of the Rivers and Harborts Act, which is regulated by the USACE.

potential requirement for the project to obtain a Clean Water Act (CWA) section 401 Water Quality Certification, subject to further review by EGLE.[109] Staff's understanding is that this is a state-level certification and not a federal permit, but that this certification would likely be required in the event federal permitting is necessary, and therefore may indicate the presence of a federal nexus.[110] Again, this could necessitate reevaluation of the project by the Commission based on section 7.6(b) of the AFIP.

Third, Exhibit A-1.2, Figure 8 (Recreational & Other Land Use) depicts USFWS easements in yellow. There are two areas in the map that Staff observed as having yellow polygons: one outside of the project area but partially within the 1000-ft buffer, and one linear yellow segment overlapping a small portion of Lipp Highway.[111] In response to Staff's request for more information regarding impacts to these easements, the Applicant stated that project activities would not impact the easement located outside of the project area, which is a USFWS Farm Service Agency (FSA) conservation easement, further stating that the USFWS did not share specific actions or concerns regarding that easement.[112] USFWS Farm Service Agency (FSA) conservation easements are typically protected through voluntary programs that encourage landowners to establish resource-conserving vegetative covers on agricultural or environmentally sensitive land in exchange for financial benefits.[113] The linear yellow polygon along the segment of Lipp Highway was not addressed in the Applicant's response.[114] Staff

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[109] Exhibit S-7.4, p 8.
[110] https://www.epa.gov/cwa-401/overview-cwa-section-401-certification. June 24, 2026.
[111] Exhibit A-1.2, Figure 8.
[112] Exhibit S-7.1, p 1.
[113] https://www.fsa.usda.gov/resources/conservation/conservation-reserve-program. April 13, 2026.
[114] *Id.*

conducted additional resource as a result, utilizing the same public database that the Applicant cited (United States Geological Survey (USGS) Protected Areas Database of the US (PAD-US)) in order to verify the presence or absence of this potential easement. Based on this research, Staff did not locate an easement along this segment of Lipp Highway.[115] Because Exhibit A-1.2, Figure 8 illustrates both easements and underground collection lines in yellow, Staff referred to site plans provided in Exhibit A-1.1 as well, and assumes that the yellow line along Lipp Highway in Figure 8 actually refers to an existing underground power line, denoted as "—PUG—" in Sheet C.102 Rev A.[116] Therefore, Staff's concerns regarding impacts to USFWS protected easements are resolved.

Last, Staff refers to the direct testimony of Staff witness Glass and Staff witness Kroeker for further discussion on PA 116 requirements, including upon decommissioning.

Q. Does the Applicant provide a list of all permits necessary prior to construction as well as address the specified criteria in AFIP section 6.3.6(a)(3)?

A. Staff is limiting its position to environmental permits in the context of this testimony. Additional discussion regarding permitting, including potentially required local permits, is provided by Staff witness Mullkoff. Exhibit A-6.3 provides a list of environmental permits necessary prior to construction, including their subject, responsible agency, date of proposed application submission, and date of expected permit issuance, with dates expressed as a specified quarter of a year.[117]

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[115] https://maps.usgs.gov/padusdataexplorer/. July 2, 2026.
[116] Exhibit A-1.1, Sheet C.102 Rev: A.
[117] Exhibit A-6.3, pp 1-2.

Q. Had the Applicant obtained any permits as of the time of filing their application?

A. According to the Applicant, no permits had been issued as of the time of application, but it has received determinations of no hazard (DNH) from the Federal Aviation Administration (FAA) which are attached to Exhibit A-6.3.[118]

Q. Does the Applicant provide a statement and reasonable evidence that the proposed facility will not begin commercial operation until it complies with applicable state and federal environmental laws, including NREPA, in accordance with MCL 460.1225(1)(i)?

A. According to the direct testimony of Company witness Brennan, "[t]he ECR is consistent with a commitment to both maintaining compliance with environmental law, and to assuring that the proposed Project will not commence commercial operations until applicable laws are satisfied, whether through permit applications, environmental assessments, correspondence with relevant agencies, or other measures."[119] Evidence is provided throughout the ECR that Staff finds generally reasonable to support this statement.[120] The ECR is largely structured to introduce environmental regulations; identify project applicability based on desktop and field reviews; and describe response measures as appropriate to comply with the referenced regulations. Staff's proposed additional and modified conditions strengthen the certainty that compliance will be achieved and maintained by the Company.

Q. Does the application conform to the requirements set forth in MCL 460.1226(8)(a)(vi)?

A. Yes. The Applicant's environmental impact assessments, avoidance measures, mitigation strategies, and consultations with several agencies, as provided in the record evidence and

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[118] *Id.*, at p 1.
[119] Direct testimony of Company witness Brennan, p 11.
[120] Exhibit A-6.2.

discussed in this testimony, demonstrate that the Applicant has established its proposed activities which are regulated, and its intent to comply with the identified requirements necessary for compliance with state or federal environmental regulations. Again, Staff's proposed additional and modified conditions strengthen the certainty that compliance will be achieved and maintained by the Company.

Q. What are Staff's conclusions regarding compliance with state and federal environmental laws, including NREPA, and whether the record is sufficient for the Commission to make a determination in accordance with PA 233?

A. Staff's position is that the record meets the standards established in MCL 460.1225(1)(i) and is sufficient for approval in accordance with MCL 460.1226(8)(a)(vi).

D. <u>Michigan Environmental Protection Act (MEPA)</u>

Q. What is the scope of your review regarding the project's compliance with section 1705(2) of MEPA?

A. I reviewed the Applicant's environmental compliance report as provided in Exhibit A-6.2, from sponsoring Company witness Brennan, the relevant portions of the direct testimony of Company witness Brennan, and the Applicant's responses to Staff discovery, specifically those presented as Staff Exhibits S-5.2, S-7.1, S-7.4, and S-7.8, relevant to this topic. These materials were reviewed for compliance with the requirements set forth in section 6.3.6(a)(2) of the AFIP and the standard established by MCL 460.1226(7)(b).

Q. What requirements do section 6.3.6(a)(2) of the AFIP and MCL 460.1226(7)(b) establish for the approval of siting certification by the Commission?

A. Both section 6.3.6(a)(2) of the AFIP and MCL 460.1226(7)(b) require that the Applicant comply with the standard in section 1705(2) of MEPA. The AFIP further requires the Applicant to describe how it complies with this regulation.

Q. What does section 1705(2) of MEPA require?

A. Section 1705(2) of MEPA (MCL 324.1705(2)) requires that,

> In administrative, licensing, or other proceedings, and in any judicial review of such a proceeding, the alleged pollution, impairment, or destruction of the air, water, or other natural resources, or the public trust in these resources, shall be determined, and conduct shall not be authorized or approved that has or is likely to have such an effect if there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare.

Q. Did the Applicant describe how the proposed project complies with section 1705(2) of MEPA and MCL 460.1226(7)(b)?

A. Yes. The ECR describes anticipated impacts to the environment and natural resources and indicates that the site was designed to minimize these impacts. The Applicant also provided Exhibit A-1.5 (Alternatives), which discusses site selection and screening criteria, including floodplains, wetlands, and sensitive biological, visual, and cultural resources, among other criteria.[121] The ECR identifies siting constraints based on data characterization included wetlands, waterbodies, vegetation communities, protected species and habitats, architectural and archaeological resources occurring within the Project Area and surrounding landscape.[122] The project is also designed to meet the needs of utility and corporate customers; to support Michigan's renewable energy goals,

[121] Exhibit A-1.5, pp 2 – 3.
[122] *Id.*, at p 3.

pursuant to PA 234 of 2023; and to meet the requirements of the Applicant's Generator Interconnection Agreement to generate 200MWac of energy.[123]

Q. Does Staff take a position regarding the Applicant's compliance with section 1705(2) of MEPA and MCL 460.1226(7)(b)?

A. To inform this position, Staff must consider (1) the alleged pollution, impairment, or destruction of the air, water, or other natural resources, or the public trust in these resources, and (2) whether the evidence demonstrates a feasible or prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare. Based on these criteria, Staff takes the following positions:

- Federal and state regulated environmental impacts of the proposed project, as presented by the Applicant, are limited to potential impacts on water resources (drain crossings). Staff's position is that these impacts meet the description in consideration (1) above. Water resource impacts are under the regulatory purview of EGLE rather than the Commission. As such, the alleged conduct, including an analysis of feasible and prudent alternatives, will be addressed by separate permitting decisions.
- The evidentiary record is sufficient to evaluate the conduct as described in item (1) and includes an alternatives analysis responsive to item (2). This determination is contingent on whether the project will create new or additional impacts after siting certification that would change the alleged pollution,

[123] Exhibit S-5.2, pp 11 – 12.

impairment, or destruction of the environment and natural resources from the way such impacts are represented in the evidentiary record.

Q. Does Staff have any additional comments regarding the proposed project with respect to MEPA considerations?

A. Yes. Staff requested further description from the Applicant to demonstrate that access roads and access road entrance locations were sited in the most feasible and prudent manner relative to potential alternative project designs. The Applicant's response did not address the question directly, but stated that alternatives were considered and will be further detailed in coordination with EGLE's permitting process, anticipated in Q4 2026 – Q1 2027.[124]

Q. Was Staff satisfied with this response?

A. No. Staff's request was specific in requesting "a description of whether any alternatives were considered and why the site design as submitted represents the most feasible and prudent design with respect to the planned roads and entrances."[125]

Q. Does Staff have a proposed remediation regarding this deficiency?

A. Yes. Staff takes the following positions relative to the preceding:

- Staff agrees, as stated above, that water resource impacts are under the regulatory purview of EGLE rather than the Commission. As such, the alleged conduct, including an analysis of feasible and prudent alternatives, will be addressed by separate permitting decisions.

[124] Exhibit S-7.1, pp 4 – 5.
[125] *Id.*, at p 3.

- The above position does not relieve the MPSC from evaluating the proposed project design in accordance with MEPA section 1705(2); however, the MPSC receiving verification that such review and permitting will take place, as indicated by the Applicant, provides a pathway for verifying that MEPA considerations must be addressed based on the provisions of PA 233, as well as PMC No. 15, requiring applicable permits be obtained, as further described below.
- While Staff expects a comprehensive and responsive description for any future discovery requests to the Applicant, it acknowledges the following:
  - Access road crossings are well-demonstrated in Exhibit A-1.1 as establishing direct routes to main roads in a reasonable fashion.[126]
  - Direct impacts to wetlands, streams, or drainage features from access roads (outside of entrance locations), collection lines, fencing, panel arrays, or other project activities are not anticipated.[127]

Based on the preceding, Staff accepts the Applicant's position on access road installation being designed in compliance with MEPA.

III. Proposed Minimum Conditions

Q. What is the scope of your review regarding the PMCs recommended for the project?

A. I reviewed the Applicant's description of PMC No. 3 and No. 15 as provided in Exhibit A-14, from sponsoring Company witness Korpar. I also reviewed the relevant portions of the direct testimony of Company witness Korpar, and the Applicant's responses to Staff discovery, specifically those presented as Staff Exhibit S-7.8, relevant to this topic.

[126] Exhibit A-1.1, Sheets C.315 (EC-05), C.317 (EC-04), C.323 (EC-04), C.325 (EC-02), and C.329 (EC-03).
[127] Exhibit S-7.1, p 4.

These materials were reviewed against section 6.3.14 and Attachment F of the AFIP, and the standard established by MCL 460.1226(6) in part.

Q. Regarding PMCs, what requirements do section 6.3.14 and Attachment F of the AFIP, and the standard established by MCL 460.1226(6), in part, establish for the approval of siting certification by the Commission?

A. MCL 460.1226(6) states, in part, that "[t]he commission may condition its grant of the application on the applicant taking additional reasonable action related to the impacts of the proposed energy facility."

Section 6.3.14 of the AFIP states, in part, that the Applicant shall "include proposals to meet the proposed minimum conditions when filing an application or provide an explanation justifying why any of the proposed minimum conditions should not be applied to the facilities," and, "consider how the project meets, plans to meet, or should not be required to meet, that condition."

Attachment F of the AFIP lists 21 proposed minimum conditions, prefaced with instructions for applicants to provide proposals for meeting conditions or justification for not meeting them.

Q. What does PMC No. 3 require?

A. PMC No. 3, as stated in the AFIP, requires,

> An agreement by the applicant to repair or replace all public and private drainage systems, damaged from construction or decommissioning processes except for those drainage systems that are already specifically addressed in lease agreements or other agreements in place. This shall include county or intercounty drains in the event there are established county or intercounty drains that are part of the public drainage system.

Q. Does Staff take a position regarding PMC No. 3?

A. Yes, Staff is supportive of PMC No. 3 with modifications also presented in Exhibit S-2.1, which states that:

> 3. The Applicant is required to repair and replace all public and private drainage systems damaged from construction or decommissioning processes. Drainage systems already addressed in separate agreements with the Applicant will be repaired or replaced pursuant to those pre-existing agreements. This shall include county or intercounty drains in the event there are established county or intercounty drains that are part of the public drainage system.

Q. Did the Applicant include a proposal to meet this proposed condition?

A. Yes. The Applicant agreed to the condition as stated in the AFIP, and references project restoration plans as provided in Exhibits A-1.3, A-9, and A-13.[128] In the application, the Applicant does not explicitly state "county and intercounty" drains as a consideration, however, Staff confirmed that the Applicant's agreement to the condition includes county and intercounty drains.[129]

Q. Did the Applicant consider how the project meets, plans to meet, or should not be required to meet PMC No. 3?

A. Yes. Exhibit A-1.3 describes installation methods and grading plans to avoid impact to drains and establishes a procedure for damage that may occur due to equipment contact to design and pay for repairs to drains.[130]

Q. Does Staff take a position regarding the Applicant's agreement to PMC No. 3?

A. Yes, Staff takes the position that the Applicant's agreement to PMC No. 3 is satisfactory and is consistent with the modified PMC proposed by Staff and as clarified above through discovery.

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[128] Exhibit A-14, p 2.
[129] Exhibit S-7.8, p 5.
[130] Exhibit A-1.3, p 6.

Q. What does PMC No. 15 require?

A. PMC No. 15, as stated in the AFIP, requires "[a]pproval contingent upon receiving approval for all necessary applicable state, federal, and local permits and all permits need to be obtained before beginning construction on the portion of the project for which the permit is necessary."

Q. Does Staff take a position regarding PMC No. 15?

A. Yes, Staff is supportive of PMC No. 15 with modifications as also presented in Exhibit S-2.1, which states that:

> 15. The Applicant is required to receive approval for all necessary applicable state, federal, and local permits and all permits need to be obtained before beginning construction on the portion of the project for which the permit is necessary.
>   a. Within the Completion Report, the Applicant is required to submit all agency-required plans created after the issuance of the certificate.

Q. Did the Applicant include a proposal to meet this proposed condition?

A. Yes. The Applicant agreed to this condition, citing Exhibit A-6.3 (Permit List and Status) as a proposal to meet this condition.[131] However, the language provided by the Applicant doesn't explicitly indicate that the Applicant agrees to obtain the permits prior to construction. Staff attempted to clarify in discovery whether this commitment by the Applicant includes a commitment to obtain the necessary permits before beginning construction on the portion of the project for which the permit is necessary. The Applicant's response was "[c]onfirmed that Glacier Meadows will obtain and comply with all lawfully required permits and conditions of approval."[132] This commitment still

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[131] Exhibit A-14, p 4.
[132] Exhibit S-7.8, p 6.

lacks the language specific to obtaining permits prior to construction for the permitted activity.

Q. Does Staff take a position regarding the Applicant's agreement to PMC No. 15?

A. Staff takes the position that the Applicant's proposed agreement to PMC No.15 is partially satisfactory, but in order to be consistent with the modified PMC proposed by Staff, the Applicant needs to obtain the necessary permits before beginning construction on the portion of the project for which the permit is necessary and to provide all agency-required plans created after issuance of the certificate within the Completion Report.[133]

IV. Conclusion

Q. Does this conclude your direct testimony in this case?

A. Yes.

[133] AFIP section 8.1, p 32.

S T A T E O F M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of GLACIER MEADOWS SOLAR, LLC for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.	))))))	Case No. U-22044

QUALIFICATIONS AND DIRECT TESTIMONY OF

JOSEPH G. LOBODZINSKI

MICHIGAN PUBLIC SERVICE COMMISSION

July 20, 2026

DIRECT TESTIMONY OF JOSEPH G. LOBODZINSKI
CASE NUMBER U-22044
PART I

Q. Please state your full name and business address for the record.

A. My name is Joseph G. Lobodzinski, and my business address is 7109 West Saginaw Highway, Lansing, Michigan 48917.

Q. By whom are you employed and in what capacity?

A. I am employed by the Michigan Public Service Commission (MPSC or Commission) as a Departmental Analyst in the Renewable Energy and Storage Siting Section of the Energy Operations Division.

Q. Please describe your educational background.

A. I earned an Associate's Degree in Applied Science in CAD Drafting and Tool Design Technology with a Certificate in CNC Machining from Ferris State University in May of 2019. In May of 2022, I graduated from the University of Michigan-Ann Arbor with a Bachelor of Arts in Political Science as well as additional minors in Modern European Studies and German.

Q. Please describe your relevant professional background.

A. Prior to being hired at the MPSC, from April 2023 to August 2024, I was employed at the Community Economic Development Association of Michigan (CEDAM) as a Community Development Fellow in the Community Development Fellowship. As a part of this fellowship, I was placed in Buena Vista Charter Township in Saginaw County, Michigan, where I worked as their Community Development Officer. During my time working in Buena Vista Charter Township, I elevated the community as a certified Redevelopment Ready Community through the Michigan Economic Development Corporation (MEDC), rewrote the zoning ordinance for the first time since 2009 and acquired over $900,000 in grant funding for the municipality. I also oversaw the township's efforts in becoming a Bronze-level designated community through the SolSmart Designation Program funded in part by the U.S. Department of Energy's Solar Energy Technologies Office (SETO). In October 2024, I accepted the position of Departmental Analyst in the Renewable Energy and Storage Siting Section of the MPSC.

Q. What are your current responsibilities?

A. The responsibilities of my job include reviewing applications for renewable energy and storage facility siting certificates, evaluating compliance with Public Act 233 of 2023 and all other applicable laws, rules, and Commission order guidelines. I also attend meetings with the public, local units of government, siting applicants, contractors, and interested parties related to facility siting, as well as providing analysis and written testimony for renewable energy and storage facility siting cases that come before the Commission.

Q. Have you received any work-related training since starting your employment with the MPSC?

A. Yes. The trainings I have completed thus far include:

- Michigan State University Extension: Master Citizen Planner Certification (2026)
- Michigan State University Extension: Zoning Administrator Certificate Program (2026)
- MITx Online: Resolving Renewable Energy Siting Disputes (2025)
- National Association of Regulatory Utility Commissioners (NARUC): The Role of the Utility Regulator (2025)
- EUCI: Renewable Energy Zoning & Permitting Essentials (2025)
- EUCI: Strategic Solar Siting (2025)
- Michigan State University Extension: Citizen Planner Program (2025)

- Michigan State University Extension: Michigan Pollinator Habitat Planning Scorecard for Solar Sites Certification Program (2025)
- Michigan State University Institute of Public Utilities: Annual Regulatory Studies Program Fundamentals Course (2025)

Q. Have you previously testified before the Commission?

A. Yes. I filed testimony in the following cases:

Case No.	**Case Description**
U-21932	Acceleration Solar, LLC, PA 233 Certificate Case
U-21962	Washtenaw Solar Energy, LLC, PA 233 Certificate Case
U-21956	Otisville PV I, LLC, PA 233 Certificate Case
U-22003	Rouget Road Solar Farm, LCC, PA 233 Certificate Case
U-22004	Headland Solar, LLC, PA 233 Certificate Case

DIRECT TESTIMONY OF JOSEPH G. LOBODZINSKI
CASE NUMBER U-22044
PART II

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to provide certain of the Commission Staff's (Staff) insights and recommendations regarding the request for a siting certificate for the proposed Glacier Meadows Solar Energy Facility in Blissfield and Deerfield Townships, in Lenawee County, Michigan, under Public Act 233 of 2023 (PA 233), MCL 460.1221, *et seq*. I shall refer to this request as "the application," which includes all exhibits, testimony, and other materials submitted by Glacier Meadows Solar, LLC (Applicant or Company) in support of their initial request. The application requests a certificate for the proposed Glacier Meadows Solar project as described by Staff witness Sarah Mullkoff, which I shall refer to as "the Project" or "the Facility".

In my testimony I will specifically be addressing public benefits topics and findings related to the following sections of PA 233:

- MCL 460.1221(u)(i)-(vi): Project Labor Agreements;
- MCL 460.1225(1)(e): Expected public benefits of the proposed energy facility;
- MCL 460.1226(7)(a): The public benefits of the proposed facility justify its construction;
- MCL 460.1226(7)(e)(i)-(iii): Prevailing wage and fringe benefit standards; and
- MCL 460.1227: Host Community Agreements and Community Benefits Agreement

I will also address Staff's review of relevant application exhibits, Company direct testimony, and the Company's responses to discovery including the following exhibits:

- A-1.15: Participating Parcel List, sponsored by Company witness Marla Korpar
- A-8.1: Expected Tax Revenue, sponsored by Company witness Martina Arel;

- A-8.2: Payments to Landowners, sponsored by Company witness Korpar;
- A-8.3: Host Community and Community Benefits Agreements, sponsored by Company witness Korpar;
- A-8.4: Local Job Creation, sponsored by Company witness and Korpar;
- A-8.5: Energy Needs Contribution, sponsored by Company witness Korpar;
- A-16: Conditions, with respect to Proposed Minimum Condition 20, sponsored by Company witness Korpar.

Q. Are you sponsoring any exhibits as a part of your testimony?

A. Yes. I am sponsoring the following exhibits:

- Exhibit S-8.1: Company response to Staff regarding administrative fees within its tax revenue projections;
- Exhibit S-8.2: Company response to Staff regarding their potential application for a Solar Energy Facility Exemption Certificate;
- Exhibit S-8.3: Company response to Staff regarding their commitment to execute a host community agreement with Lenawee County; and,
- Exhibit S-8.4: Company response to Staff regarding their efforts to execute a host community agreement with Deerfield Township.

Q. Were these exhibits prepared by you or under your supervision?

A. Yes.

Public Benefits

Q. What is the scope of your review regarding public benefits of the Facility?

A. I reviewed the Applicant's Exhibits A-8.1 through A-8.5, Public Benefits, from sponsoring Company witnesses Arel and Korpar, and the Applicant's responses to Staff discovery on these topics. These materials were reviewed for compliance with the requirements of PA 233 and the Commission's Application Filing Instructions and Procedures (AFIP) Section 6.3.8.

Q. What are the requirements of MCL 460.1225(1)(e)?

A. MCL 460.1225(1)(e) requires the Applicant to provide the "[e]xpected public benefits of the proposed energy facility" within its application for certification under PA 233.

Q. Has the Applicant provided the expected public benefits of the proposed facility?

A. Yes. Through its application and responses to subsequent discovery requests made by Staff, the Applicant has provided the expected public benefits of the proposed facility, as detailed within my direct testimony.

Q. What are the requirements of AFIP Section 6.3.8 and MCL 460.1226(7)(a)?

A. Section 6.3.8 of the AFIP requires the Applicant to provide the following exhibits:

- Exhibit A-8.1: Expected Tax Revenue;
- Exhibit A-8.2: Payments to Landowners;
- Exhibit A-8.3: Host Community and Community Benefits Agreements;
- Exhibit A-8.4: Local Job Creation; and
- Exhibit A-8.5: Energy Needs Contribution.[1]

[1] Application Filing Instruction and Procedures, Section 6.3.8, pp 13-15.

Furthermore, MCL 460.1226(7)(a) states that the Commission shall grant the application and issue a certificate if, among other requirements, it meets the following determination:

> The public benefits of the proposed energy facility justify its construction. For the purposes of this subdivision, public benefits include, but are not limited to, expected tax revenue paid by the energy facility to local taxing districts, payments to owners of participating property, community benefits agreements, local job creation, and any contributions to meeting identified energy, capacity, reliability, or resource adequacy needs of this state. In determining any contributions to meeting identified energy, capacity, reliability, or resource adequacy needs of this state, the commission may consider approved integrated resource plans under section 6t of 1939 PA 3, MCL 460.6t, renewable energy plans, annual electric provider capacity demonstrations under section 6w of 1939 PA 3, MCL 460.6w, or other proceedings before the commission, at the applicable regional transmission organization, or before the Federal Energy Regulatory Commission, as determined relevant by the commission.

<u>Expected Tax Revenue</u>

Q. Does the Applicant provide evidence demonstrating that the public benefits of the proposed energy facility justify its construction with regard to expected tax revenue paid by the energy facility to local tax districts?

A. Yes. In their direct testimony, Company witness Arel states "over its expected 35-year operational life, the Project's planned capital investments would contribute approximately $37.5 million (in 2025 dollars) in cumulative county, township, and school district tax revenue."[2] Company witness Arel states that this "additional revenue would directly benefit the Blissfield and Britton Deerfield School Districts, the Lenawee Intermediate School District, [and] support critical county and township services including libraries."[3]

[2] Direct Testimony of Company witness Arel, p 4.
[3] *Id.* at p 5.

In Exhibit A-8.1: Tax Revenue, the Company described that the tax revenue to local taxing jurisdictions was calculated by taking the assessed taxable value of the capitalized investment cost of the Project, multiplying the value by Michigan Department of Treasury's personal property multiplier for solar energy systems, then multiplying by the 50 percent assessment value pursuant to the Michigan Constitution of 1963 and the General Property Tax Act, then multiplying by the assumed proportion of the Project located in the jurisdiction, and then finally multiplying by the applicable millage rate, resulting in a total of approximately $38.8 million.[4] The Applicant then added the $3.4 million estimated to be generated through the tax revenue from the land, to obtain a grand total of approximately $42.2 million to local taxing bodies through real property taxes.[5]

Furthermore, the Applicant estimates approximately $34.1 million would be generated to local taxing bodies if the Project is granted a Solar Energy Facilities Exemption Certificate (SEFEC) under the Solar Energy Facilities Taxation Act in lieu of real property taxes.[6] A solar energy facility may apply for a SEFEC under the Solar Energy Facilities Taxation Act of 2023. A SEFEC entitles a qualified solar energy facility to an exemption from ad valorem real and personal property taxes for a term of 20 years. A solar energy facility can obtain a SEFEC only if the local governmental unit has established a Solar Energy District and approves their application for a SEFEC. The local governmental unit holds the sole authority to create a Solar Energy District and to approve an application from a solar energy facility for a SEFEC. In this scenario, the Applicant would pay $7,000 per MW nameplate capacity to the local taxing jurisdictions

[4] Company Exhibit A-8.1, p 27.
[5] *Id.* at p 31.
[6] *Id.* at pp 33-34.

instead of the ad valorem real property taxes for a 20-year period of the 35-year operational life of the Project.[7] The Applicant has provided a narrative describing whether they will apply for a SEFEC for the Project, which is detailed later in this testimony.

In Staff's opinion, the evidence provided by the Applicant sufficiently demonstrates that the public benefits of the proposed energy facility justify its construction with regard to expected tax revenue paid by the energy facility to local taxing districts. The project will provide millions of dollars of tax revenue, both in the instance the Applicant pays real property taxes over the full 35-year operational life of the Project, or if it is granted a SEFEC. Both potential outcomes are further detailed later in this testimony.

Q. Has the Applicant provided detailed projections of the tax revenue that will be generated by local taxing jurisdictions over the operational life of the Project?

A. Yes. Through Exhibit A-8.1: Tax Revenue, the Applicant provided tax revenue estimates broken down by eight taxing bodies as included in Table 1, which details the amount of tax revenue to local taxing bodies through real property taxes over the full 35-year operational life of the Project, and Table 2, which details the amount of tax revenue to local taxing bodies if the Project is granted a SEFEC.[8,9]

Table 1

Taxing Body	Percentage of Investment	Millage Rate	Total Revenue
Lenawee County	100%	6.3524	$10,504,800

[7] *Id*. at p 32.
[8] *Id*. at pp 28-29.
[9] *Id*. at pp 33-34.

Deerfield Township	83%	5.75	$7,923,900
Blissfield Township	17%	4.9737	$1,370,800
Blissfield Community School District	50%	5.00	$4,134,200
Britton Deerfield School District	50%	2.00	$1,653,700
Lenawee Intermediate School District	100%	7.2922	$12,059,000
Blissfield Library District	17%	1.250	$344,500
Lenawee Library District	83%	0.5998	$826,800

<u>Table 2</u>

Taxing Body	Percentage of Investment	Millage Rate	Total Revenue
Lenawee County	100%	6.3524	$9,253,400
Deerfield Township	83%	5.75	$7,048,900
Blissfield Township	17%	4.9737	$1,147,900
Blissfield Community School District	50%	5.00	$3,443,400
Britton Deerfield School District	50%	2.00	$1,536,000
Lenawee Intermediate School District	100%	7.2922	$10,622,400
Blissfield Library District	17%	1.250	$288,500
Lenawee Library District	83%	0.5998	$735,300

In Staff's opinion, the tax projections provided by the Applicant are sufficiently detailed and adequate to justify the construction of the proposed facility, provided that the Applicant satisfies the condition regarding the expected tax revenue paid by the energy facility to local taxing districts that Staff recommends the Commission adopt, which is discussed later in this testimony.

Q. Did the tax revenue estimates provided by the Applicant include applicable administrative fees, such as those applied under the Property Tax Administration Fee of MCL 211.44?

A. No. In response to Staff discovery, the Applicant stated that "administrative fees (if applicable) were not expressly considered in the analysis in Exhibit A-8.1."[10] However, while the Applicant did not calculate the applicable administrative fees as part of their tax revenue projections, in Staff's opinion, the tax revenue projections still justify the construction of the Project, provided the Applicant satisfies conditional language Staff is recommending with regard to the expected tax revenue paid by the Facility to local taxing districts and all applicable administrative fees, which is discussed later in this testimony.

Q. Did the Applicant provide sufficient evidence to show whether they will apply for a SEFEC for the Project?

A. Yes. In response to Staff discovery, the Applicant stated the following:

> Utility scale solar energy generation facilities can often be eligible to apply for a Solar Energy Facility Exemption Certificate ("SEFEC") that entitles a qualified facility to an exemption from ad valorem real property taxes for a term of up to 20 years. Glacier Meadows has not yet made any decision as to whether it will or will not seek to apply for an SEFEC for the Project.[11]

While the Applicant has yet to decide as to whether it will apply for SEFEC, under the Solar Energy Facilities Taxation Act of 2023, a solar energy facility can obtain a SEFEC only if the local governmental unit has established a Solar Energy District and approves their application for a SEFEC.[12]

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[10] Exhibit S-7.1, p 1.
[11] Exhibit S-7.2, p 1.
[12] MCL 211.1153.

In this instance, if the local governmental units are inclined for the Applicant to pay ad valorem property taxes over the entire operational life of the Project, they may reject the Applicant's application for a SEFEC via their legislative bodies.

Such a determination would be made by the local governmental units in an arrangement separate to the case. In Staff's opinion, the evidence the Applicant has provided with regard to whether it will apply for a SEFEC for the Project is sufficient to determine the appropriateness of the approval of the siting certificate for the Project.

Q. Has the Applicant provided evidence describing impact on funding provided to local school districts?

A. Yes. Under the Michigan School Aid Act of 1979, each school district receives a set per-pupil foundation allowance from the State School Aid Fund.[13] Additionally, utility-scale solar equipment is classified industrial personal property.[14] Since there are areas of the Facility which utilize utility-scale solar equipment, which would classify these areas as industrial personal property, these areas would likely be exempt from school operating taxes levied through millages upon nonexempt taxable properties within the school district.[15,16] While these areas of the Project would not contribute to the operating funds of the Blissfield Community School District and the Britton Deerfield Community School District, they would be subject to bond and capital improvement millages levied by the districts. Through evidence presented in the Company's Exhibit A-8.1, the Applicant projects that the Facility will contribute a cumulative total of over $5.7 million

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[13] MCL 388.1620.
[14] MCL 380.1211(1).
[15] *Id*.
[16] MCL 388.1620.

towards the districts' bond and capital improvement funds if the Project pays ad valorem property taxes over its entire operational life.[17] If the Project were granted a SEFEC, the Applicant projects that the Facility will contribute a cumulative total of over $4.9 million towards the districts' bond and capital improvement funds.[18]

Furthermore, the Project will also be subject to Lenawee Independent School District's millage, which would generate a cumulative total of at least $10.6 million in revenue towards the district's ability to provide special education programs county-wide, including students within the Blissfield Community School District and Britton Deerfield Community School District.[19]

In Staff's opinion, the Project will have a positive impact on funding provided to local school districts. The Blissfield Community School District and the Britton Deerfield Community District are both guaranteed a set per-pupil foundation allowance from the State School Aid Fund.[20] These districts are set to receive an added total of between $4.9 to $5.7 million dollars over the operational life of the Project through applicable bond and capital improvement millages, meaning that the districts would only gain funding through the construction and operation of the Project.[21]

Payments to Owners of Participating Property

Q. Did the Applicant provide sufficient evidence to justify construction of the proposed energy facility with regard to payments to owners of participating property?

[17] Company Exhibit A-8.1, pp 28-29.
[18] *Id.* at pp 33-34.
[19] *Id*.
[20] Under MCL 338.1620(1), the per-pupil foundational allowance for the 2025-2026 school year was $10,500.00.
[21] Company Exhibit A-8.1, pp 28-29, 33-34.

A. Yes. In their direct testimony, Company witness Korpar states that the Applicant "considers the payments to represent fair compensation, and it is further expected that some property owners may continue agricultural or residential uses on neighboring properties during the life of the Project."[22] Company witness Korpar also states the Applicant has "entered into participating landowner agreements including leases, easements, transmission easements, and purchase options."[23] This testimony is corroborated by Exhibit A-8.2: Payments to Landowners, which the Applicant filed confidentially.[24] The evidence provided is sufficient to demonstrate that the public benefits of the proposed energy facility justify its construction with regard to payments to owners of participating property, as the participating property owners considered these payments to be appropriate to willingly and voluntarily sign agreements with the Applicant for the Project.

Community Benefits Agreements

Q. Did the Applicant provide sufficient evidence with regard to host community agreements (HCA) or community benefits agreements (CBA), including describing how the associated public benefits of the proposed energy facility justify its construction?

A. Yes. The Applicant provided sufficient evidence with regard to host community agreements or community benefits agreements to justify the construction of the Project, subject to the conditions below. The evidence will be presented and discussed later in this testimony.

Local Job Creation

[22] Direct Testimony of Company witness Korpar, p 17.
[23] *Id*.
[24] Company Exhibit A-8.2, p 3.

Q. Did the Applicant provide sufficient evidence with regard to local job creation, including describing how the associated public benefits of the proposed energy facility justify its construction?

A. Yes. In their direct testimony, Company witness Korpar states, "the Project is anticipated to create approximately 38 direct and 56 indirect and induced local job years during the construction phase, with three direct local jobs and nine indirect local jobs during the operational lifetime of the projects."[25] While the Applicant has yet to enter into a pre-hire project labor agreement or collective bargaining agreement, Company witness Korpar states "[t]he Project will operate under a Project Labor Agreement (PLA) consistent with Public Act 233 and Proposed Minimum Condition 20."[26] Staff's opinion is that the evidence provided is sufficient to demonstrate that the public benefits of the proposed energy facility justify its construction with regard to local job creation, as the Project will create both temporary jobs during the construction period of the Project and permanent jobs during the operational life of the Project.

<u>Energy Needs Contribution</u>

Q. Did the Applicant provide sufficient evidence to demonstrate how contributions to meeting identified energy, capacity, reliability, or resource adequacy needs of the State of Michigan justify construction of the proposed energy facility?

A. Yes. In their direct testimony, Company witness Korpar states that the Project "will support the state of Michigan's renewable energy needs" and "is anticipated to generate enough clean renewable energy to power approximately 50,000 homes in Michigan

[25] Direct Testimony of Company witness Korpar, p 18.
[26] *Id*.

annually."[27] This testimony is supported by Exhibit A-8.5: Energy Needs Contribution, in which the Applicant states the Project will "support Michigan's renewable energy goals, pursuant to Michigan Public Act 235 of 2023, to achieve 50% renewable energy by 2030, 60% renewable energy by 2035, and 100% clean energy statewide by 2040."[28] This statement is supported by Exhibit A-3: Project Schedule, which states the project is expected to have a commercial operation date of Q3 2028, suggesting that the Project would meaningfully contribute towards the energy needs and goals of the state of Michigan by the 2030 target.[29] In Staff's opinion, the evidence is sufficient to demonstrate that the public benefits of the proposed energy facility justify its construction with regard to meeting identified energy, capacity, reliability, or resource adequacy needs of the state of Michigan, as the Project will meaningfully contribute to the renewable energy standards established by MCL 460.1028.

Public Benefits Recommendations

Q. Considering the foregoing, what does Staff recommend with regard to whether the public benefits of the proposed energy facility justify its construction?

A. Staff recommends the Commission find that the public benefits of the proposed energy facility justify its construction contingent upon certain conditions, including requiring the Project's tax value be assessed and an agreement to provide updated tax revenue estimates, as discussed further below. The estimates must include any construction costs to date and any applicable administrative fees under the Property Tax Administration Fee of MCL 211.44, payable to the ALUs based upon the most updated millage rates from all

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[27] *Id.*
[28] Company Exhibit A-8.5, p 1.
[29] Company Exhibit A-3, pp 1-2.

eligible local taxing jurisdictions available, within 60 days of the commencement of operation of the Facility. The estimates must also detail the tax revenue generated year over year through each specific millage rate to which the Project would be subjected. Staff recommends that the Applicant be required to submit the updated estimates to the docket in MPSC Case No. U-22044 as is further described in my proposed condition language below.

Project Labor Standards

Q. Please describe the applicable labor standards contained in PA 233.

A. MCL 460.1221(u) defines the term "project labor agreement" as a "a prehire collective bargaining agreement with 1 or more labor organizations that establishes the terms and conditions of employment for a specific construction project." MCL 460.1221(u)(i)-(vi) further define a project labor agreement or collective bargaining agreement compliant with PA 233 as one that does the following:

i. Binds all contractors and subcontractors on the construction project through the inclusion of appropriate specifications in all relevant solicitation provisions and contract documents;
ii. Allows all contractors and subcontractors on the construction project to compete for contracts and subcontracts without regard to whether they are otherwise parties to collective bargaining agreements;
iii. Contains guarantees against strikes, lockouts, and similar job disruptions;
iv. Sets forth the effective, prompt, and mutually binding procedures for resolving labor disputes arising during the term of the project labor agreement;

v. Provides other mechanisms for labor-management cooperation on matters of mutual interest and concern, including productivity, quality of work, safety, and health; and,

vi. Complies with all state and federal laws, rules, and regulations.[30]

Furthermore, MCL 460.1226(7)(e)(i)-(ii) requires that a project labor agreement or collective bargaining agreement compliant with PA 233 must also do the following:

i. The installation, construction, or construction maintenance of the energy facility will use apprenticeship programs registered and in good standing with the United States Department of Labor under the national apprenticeship act, 29 USC 50 to 50c; and,

ii. The workers employed for the construction or construction maintenance of the energy facility will be paid a minimum wage standard not less than the wage and fringe benefit rates prevailing in the locality in which the work is to be performed as determined under 2023 PA 10, MCL 408.1101 to 408.1126, or 40 USC 3141 to 3148, whichever provides the higher wage and fringe benefit rates.[31]

Lastly, MCL 460.1226(7)(e)(iii) requires the following:

> [t]o the extent permitted by law, the entities performing the construction or construction maintenance work will enter into a project labor agreement or operate under a collective bargaining agreement for the work to be performed.[32]

Q. Are there additional applicable Michigan labor laws which are discussed in the application?

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[30] MCL 460.1221(u)(i)-(vi).
[31] MCL 460.1226(7)(e)(i)-(ii).
[32] MCL 460.1226(7)(e)(iii).

A. Yes. Public Act 10 of 2023 (PA 10) requires prevailing wages and fringe benefits on certain projects and establishes the requirements and responsibilities of contracting agents and bidders.[33] This law interacts with PA 233, which requires the workers employed for the construction or construction maintenance of the energy facility be paid a minimum wage standard not less than the wage and fringe benefit rates prevailing in the locality in which the work is to be performed as determined under PA 10 or 40 USC 3141 to 3148, whichever provides the higher wage and fringe benefit rates.[34]

Q. Has the Applicant committed to use apprenticeship programs registered and in good standing with the United States Department of Labor under the National Apprenticeship Act, 29 USC 50 to 50c, during the installation, construction, or construction maintenance of the energy facility?

A. Yes. Within Exhibit A-8.4: Local Job Creation, the Applicant attests that the project labor agreement executed by its Engineering, Construction, and Procurement (EPC) prior to construction will contain a provision regarding apprenticeship programs. More specifically, the provision would ensure the "installation, construction, or construction maintenance of the energy facility will use apprenticeship programs registered and in good standing with the United States Department of Labor under the national apprenticeship act, 29 USC 50 to 50c."[35] In Staff's opinion, this attestation satisfies the identified requirement of MCL 460.1226(7)(e)(i).

Q. Will the workers employed for the construction or construction maintenance of the energy facility be paid a minimum wage standard not less than the wage and fringe

[33] MCL 408.1101-1126.
[34] MCL 460.1226(e)(ii).
[35] Company Exhibit A-8.4, p 4.

benefit rates prevailing in the locality in which the work is to be performed as determined under PA 10 or 40 USC 3141 to 3148, whichever provides the higher wage and fringe benefit rates?

A. Yes. Within Exhibit A-8.4: Local Job Creation, the Applicant attests that the project labor agreement executed by its Engineering, Construction, and Procurement (EPC) prior to construction will contain a provision regarding prevailing wages. More specifically, that the provision would ensure the following:

> The workers employed for the construction or construction maintenance of the energy facility will be paid a minimum wage standard not less than the wage and fringe benefit rates prevailing in the locality in which the work is to be performed as determined under 2023 PA 10, MCL 408.1101 to 408.1126, or 40 USC 3141 to 3148, whichever provides the higher wage and fringe benefit rates.[36]

This attestation satisfies the identified requirement of MCL 460.1226(7)(e)(ii).

Q. Has the Applicant entered into a pre-hire project labor agreement or a collective bargaining agreement with the entities performing the construction or construction maintenance work?

A. As of the time of filing this testimony, the Applicant has yet to enter into a pre-hire project labor agreement or collective bargaining agreement with the entities performing the construction or construction maintenance work for said work to be performed.

Q. Has the Applicant provided an agreement to utilize a project labor agreement or operate under a collective bargaining agreement for the construction and maintenance work to be performed?

[36] *Id*. at p 3.

A. Yes. In their direct testimony, Company witness Korpar states, "[t]he Project will operate under a Project Labor Agreement (PLA) consistent with Public Act 233 and Proposed Minimum Condition 20."[37] Furthermore, in Exhibit A-8.4: Local Job Creation, the Applicant attests that the project labor agreement will be "executed prior to construction… in the pre-construction phase in alignment with standard industry practices."[38] Staff's opinion is that the provided testimony of Company witness Korpar, as well as the attestations provided within Exhibit A-8.4, are a satisfactory agreement to utilize a project labor agreement or operate under a collective bargaining agreement for the construction and maintenance work to be performed.

Q. Has a pre-hire project labor agreement or collective bargaining agreement been executed with one or more labor organizations?

A. While a pre-hire project labor agreement or collective bargaining agreement has yet to be executed at the time of filing this testimony, the Applicant has affirmed within Exhibit A-8.4: Local Job Creation, that they, "will ensure that a Project Labor Agreement (PLA) is executed prior to construction by the selected Engineering, Procurement, and Construction (EPC) contractor in coordination with the appropriate Building and Construction Trades Council."[39]

Q. Will the pre-hire project labor agreement or collective bargaining agreement meet all of the requirements of PA 233, specifically those under MCL 460.1221(u)(i)-(vi)?

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[37] Direct Testimony of Company witness Korpar, p 18.
[38] Company Exhibit A-8.4, p 3.
[39] *Id*.

A. Based on the representations of the Applicant, yes. Within Exhibit A-8.4: Local Job Creation, the Applicant provided an "Attestation of Compliance with PA 233" which included the following:

> Glacier Meadows expressly commits to entering into a PLA, to the extent permitted by law, for the construction and construction maintenance work to be performed consistent with the requirements of PA 233 Sec. 221(u) that establishes the terms and conditions of employment and does all of the following:
> 1. Binds all contractors and subcontractors on the construction project through the inclusion of appropriate specifications in all relevant solicitation provisions and contract documents.
> 2. Allows all contractors and subcontractors on the construction project to compete for contracts and subcontracts without regard to whether they are otherwise parties to collective bargaining agreements.
> 3. Contains guarantees against strikes, lockouts, and similar job disruptions.
> 4. Sets forth the effective, prompt, and mutually binding procedures for resolving labor disputes arising during the term of the project labor agreement.
> 5. Provides other mechanisms for labor-management cooperation on matters of mutual interest and concern, including productivity, quality of work, safety, and health.
> 6. Complies with all state and federal laws, rules, and regulations.[40]

This attestation satisfies the identified requirements of MCL 460.1221(u)(i)-(vi).

Q. Has the Applicant identified any potential labor organizations with which either itself or its designated EPC contractor will sign a project labor agreement or collective bargaining agreement for the project?

A. As of the time of filing this testimony, the evidence presented by the Applicant shows that it has not identified any specific potential labor organizations with which either itself or its designated EPC contractor will sign a project labor agreement or collective

[40] *Id*.

bargaining agreement for the Project. However, it is not necessary for the Applicant to identify any potential labor organizations with which either itself or its designated EPC contractor will sign into a project labor agreement or collective bargaining agreement, as long as the agreement is executed with one or more labor organization(s) compliant with the statutory provisions of MCL 460.1221(u)(i)-(vi) and MCL 460.1226(7)(e)(i)-(iii) prior to construction and maintenance work being performed.

Q. What does Staff recommend with regard to the project labor agreement or collective bargaining agreement?

A. As discussed further in the conditions below, Staff recommends that if the Commission grants approval of this siting certificate, it include a condition that the Applicant will execute a project labor agreement or collective bargaining agreement with one or more labor organization(s) compliant with the statutory provisions of MCL 460.1221(u)(i)-(vi) and MCL 460.1226(7)(e)(i)-(iii) prior to work being performed.

<u>Host Community Agreements; Community Benefits Agreements</u>

Q. Please describe the applicable requirements within statute pertaining to Host Community Agreements and Community Benefits Agreements.

A. MCL 460.1227(1) states:

> [The Applicant] shall enter into a host community agreement with each affected local unit. The host community agreement shall require that, upon commencement of any operation, the energy facility owner must pay the affected local unit $2,000.00 per megawatt of nameplate capacity located within the affected local unit. The payment shall be used as determined by the affected local unit for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the local unit and the applicant.[41]

[41] MCL 460.1227(1).

Additionally, MCL 460.1227(2) states:

> If an affected local unit refuses to enter into a host community agreement after good-faith negotiations with the applicant, the applicant may enter into a community benefits agreement with 1 or more community-based organizations within, or that serve residents of, the affected local unit. The amount paid by the applicant under this subsection must be equal to, or greater than, what the applicant would pay to the affected local unit under subsection (1). Community benefits agreements shall prioritize benefits to the community in which the energy facility is to be located.[42]

Q. Which entities does Staff consider as ALUs in this case?

A. As discussed in Staff witness Sarah Mullkoff's direct testimony for the instant case, Staff recognizes the ALUs for the Glacier Meadows Solar project as Blissfield Township, Deerfield Township, and Lenawee County.[43]

Q. Has the Applicant entered into a host community agreement with Blissfield and Deerfield Townships?

A. As of the time of filing this testimony, the Applicant has executed a host community agreement with Blissfield Township but has yet enter into a host community agreement with Deerfield Township. The Applicant provided the proposed host community agreements in Exhibit A-8.3: Host Community and Community Benefits Agreements.[44] According to the Applicant, the draft host community agreements were initially provided to Blissfield Township and Deerfield Township as part of its local application submission in June 2025.[45] On February 4, 2026, Blissfield Township and the Applicant executed a host community agreement, which the Applicant submitted within Exhibit A-8.3: Host

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[42] MCL 460.1227(2).
[43] Direct Testimony of Staff witness Mullkoff, p 7-12.
[44] Company Exhibit A-8.3, pp 8-11, 19-22.
[45] Direct Testimony of Company witness Korpar, p 17.

Community and Community Benefits Agreements.[46] While the Applicant has yet to reach an agreement to execute a host community agreement with Deerfield Township, the Applicant states that it, "intends to continue working with the townships in good faith and expects to execute the Deerfield Township HCA once necessary permitting is complete."[47]

Q. Does the host community agreement with each ALU require that, upon commencement of operation, the energy facility owner pay the affected local unit $2,000.00 per megawatt of nameplate capacity located within the affected local unit?

A. Based on information provided in the application, yes. In both the host community agreement executed between the Applicant and Blissfield Township and in the proposed host community agreement submitted by the Applicant to Deerfield Township, the following provision is included:

> Glacier Meadows [the Applicant] must, in a manner consistent with Public Act 233 of 2023, pay to the Township $2,000 per megawatt of nameplate capacity located within the Township. The payment under this Agreement shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as determined by the Township, so long as such project(s) are legal and permissible under all applicable laws, ordinances, and regulations.[48]

Additionally, in both the host community agreement executed between the Applicant and Blissfield Township and in the redlined host community agreement edited by Deerfield Township, the $2,000 per megawatt of nameplate capacity payment by the Applicant to the Township would be made upon the commencement of operation of the Facility.[49]

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[46] Company Exhibit A-8.3, pp 4-7.
[47] Direct Testimony of Company witness Korpar, p 17.
[48] Company Exhibit A-8.3, pp 4, 19.
[49] *Id*.

Q. Has the Applicant engaged in good-faith negotiations with Blissfield and Deerfield Townships to enter into a host community agreement?

A. Yes. Staff interprets "good-faith negotiations" as repeated discussions or attempts at discussions by the Applicant with the Chief Elected Officers (CEOs) of the ALUs or their legal representatives regarding the execution of the host community agreement(s) or the contents wherein.

In their direct testimony, Company witness Korpar stated the following:

> [The] Applicant submitted draft host community agreements to both Blissfield and Deerfield Townships in June 2025. The proposed agreements would require Applicant to pay $2,000 per megawatt of nameplate capacity located within the townships, with a total benefit offered of $400,000. After suggested revisions and redlines, Deerfield Township has indicated that it is agreeable to signing and that it will execute once necessary permitting is complete. On February 4, 2026, Blissfield Township and Glacier Meadows executed the host community agreement for Blissfield Township. Copies of the currently proposed Deerfield Township agreement and executed Blissfield Township agreement are included with the exhibit. Applicant commits to working in good faith to negotiate a final version of the former, and to entering into one or more community benefits agreements with community-based organizations serving residents of any ALU without a signed host community agreement in the event a final agreement is not achieved with Deerfield.[50]

This testimony is supported by Exhibit A-8.3: Host Community and Community Benefits Agreements, wherein the Applicant has provided copies of the emails between itself and the Townships detailing the good-faith negotiations between the parties.[51]

Staff's opinion is that the Applicant has, at the time of preparation of this testimony, engaged in good-faith negotiations with each township to enter into a host

[50] Direct Testimony of Company witness Korpar, p 17.
[51] Company Exhibit A-8.3, pp 12-17, 23-28.

community agreement. If the Commission is to grant the Applicant a certificate, Staff recommends that the Applicant be required to satisfy the language upon which the certificate would be conditioned with regard to the host community agreements or community benefit agreement(s), which is included later in this testimony.

Q. Has the Applicant indicated a willingness to enter into a host community agreement Lenawee County, or a sufficient community benefits agreement in the instance the host community agreement is unable to be executed?

A. Yes. In response to Staff discovery, the Applicant stated the following:

> Glacier Meadows [the Applicant] confirms that it would be willing to sign a Host Community Agreement with Lenawee County, or a sufficient Community Benefits Agreement in lieu of such Host Community Agreement, if required by law or by the Commission as a certificate condition consistent with the requirements of Public Act 233.[52]

Additionally, in response to Staff discovery in which the Applicant was asked to provide a narrative of the good-faith negotiations between itself and Lenawee County towards executing a host community agreement, the Applicant stated the following:

> Good faith negotiations with Lenawee County are ongoing. On May 7, 2026, the Michigan Court of Appeals issued a decision in *In re Implementing Provisions of Public Act 233 of 2023* suggesting that a non-zoning jurisdiction may nevertheless be considered an affected land unit ("ALU") under Public Act 233 of 2023 ("PA 233"). This was a departure from the Michigan Public Service Commission's October 10, 2024, Order and Application Filing Instructions and Procedures ("AFIP"). Although Glacier Meadows disagrees with the Court of Appeals decision, which is non-final and may be subject to further appeal, Glacier Meadows initiated good faith negotiations for a host community agreement ("HCA") with Lenawee County on June 9, 2026 via email to Commission Chair Van Doren and on June 12, 2026 via email to Deputy Administrator Shannon Elliott and Administrator Kim Murphy… Glacier Meadows has not

[52] Exhibit S-7.3, pp 3-20.

> received a response to its outreach emails regarding good faith negotiations for an HCA.[53]

Staff considers the Court's May 7, 2026 Opinion to have taken precedential effect, therefore, if the Commission is to grant the Applicant a certificate, Staff recommends that the Applicant be required to satisfy the proposed Host Community Agreement/Community Benefits Agreement condition with Lenawee County, as conditioned within Staff Condition No. 27.

Q. Has the Applicant entered into a community benefits agreement with one or more community-based organizations within, or that serve residents of, the affected local units?

A. As of the time of filing this testimony, the Applicant has not entered into a community benefits agreement with one or more community-based organizations within, or that serve the residents of, the affected local units.

Q. Has the Applicant provided confirmation that if they are unable to enter into a host community agreement with Deerfield Township, they will enter into a community benefits agreement?

A. Yes. Within their direct testimony, Company witness Korpar states the following:

> Applicant commits to working in good faith to negotiate a final version of the former, and to entering into one or more community benefits agreements with community-based organizations serving residents of any ALU without a signed host community agreement in the event a final agreement is not achieved with Deerfield.[54]

In Staff's opinion, this testimony by Company witness Korpar demonstrated its good faith efforts and its commitment that if the Applicant is unable to enter into a host

[53] *Id*.
[54] Direct Testimony of Company witness Korpar, p 17.

community agreement with Deerfield Township, they will enter into a community benefits agreement.

Q. Will the amount paid by the Applicant through a community benefits agreement be equal to or greater than what the Applicant would pay to Deerfield Township had a host community agreement been executed?

A. Yes. In response to Staff discovery, when asked to confirm that if the Applicant is unable to enter into a host community agreement with Deerfield Township, the Applicant will enter into a community benefits agreement within which the amount paid will be greater than or equal to, what the Applicant would have paid Deerfield Township had the host community agreement been executed, the Applicant responded by stating "Confirmed."[55]

In Staff's opinion, this confirmation by the Applicant in response to Staff discovery affirms that if the Applicant is unable to enter into a host community agreement with Deerfield Township, the Applicant will enter into a community benefits agreement within which the amount paid will be greater than or equal to, what the Applicant would have paid Deerfield Township had the host community agreement been executed.

Q. Does the community benefits agreement prioritize benefits to the community in which the energy facility is to be located?

A. At the time of preparing this testimony, it is unclear whether the community benefits agreements would benefit the communities in which the energy facility is to be located. In response to Staff discovery, the Applicant stated the following:

[55] Exhibit S-7.4, pp 1-2.

> Glacier Meadows has executed a Host Community Agreement with Blissfield Township and has reached verbal agreement with Deerfield Township who communicated that they would execute a Host Community Agreement after the Project receives its PA 233 certificate from the MPSC. In the unlikely event that an HCA is not signed with Deerfield Township, Glacier Meadows will work with its consultant Good Steward to identify qualifying local community-based organizations that would benefit the local community by receiving funds that otherwise would be allocated through the Host Community Agreements.[56]

In Staff's opinion, while the Applicant has not identified any specific community-based organizations with which it would execute a community benefits agreement, or how the community benefits agreement prioritize benefits to the community in which the energy facility is to be located, it is not required in order for the Commission to grant a certificate, provided the Applicant satisfies conditional language to the certificate requiring same. As stated above, the Applicant has reached a "verbal agreement" to execute a host community agreement with Deerfield Township "after the Project receives its PA 233 certificate from the MPSC."[57] Staff expects the Applicant to execute a host community agreement with Deerfield Township, and recommends that the certificate be conditioned upon the Applicant entering into host community agreement with Deerfield Township as defined and required by MCL 460.1227(1). Should the Applicant and Deerfield Township be unable to execute a host community agreement consistent with MCL 460.1227(1), the Applicant shall execute a community benefits agreement as defined and required by MCL 460.1227(2).

Therefore, if the Commission is to grant the Applicant a certificate, the Applicant must satisfy the language upon which the certificate would be conditioned with regard to

[56] *Id.*
[57] *Id.*

the host community agreements or community benefits agreement, which is included later in this testimony.

Q. What does Staff recommend with regard to the host community agreement?

A. As discussed further below, Staff recommends that if the Commission grants approval of a siting certificate for this Project, it includes the following condition:

> 27. The Applicant is required to enter into a host community agreement with each of the ALUs. The host community agreements must, at a minimum, guarantee $2,000 per megawatt of nameplate capacity located within the respective ALU. Such payments must be made upon commencement of operation of the facility. The Applicant must submit each executed host community agreement to the docket in Case No. U-22044. Should the Applicant be unable to execute host community agreements after good-faith negotiations with each ALU, the Applicant is required to enter into community benefits agreements with one or more community-based organizations providing benefits within or serving the residents of each ALU without a signed host community agreement. The community benefits agreement must, at a minimum, guarantee $2,000 per megawatt of nameplate capacity located within the respective ALU in the form of payments to be used for community benefits. Such payments must be made upon commencement of operation of the facility. The Applicant must submit the executed community benefits agreement to the docket in Case No. U-22044.

<u>Participating Parcel List</u>

Q. What are the requirements of AFIP Section 7.15?

A. Section 7.15 of the AFIP requires the Applicant to provide Exhibit A-1.15: Participating Parcel List, which is defined as "a list of all parcels that are participating or adjacent to the proposed facilities, including land-owner information for each parcel."[58]

Q. Has the Applicant provided a list of participating parcels as required by AFIP section 7.15?

[58] Application Filing Instruction and Procedures, Section 7.15, p 32.

A. Yes. Company witness Korpar states that the Applicant "has included with the Application a Participating and Adjacent Parcels list as Exhibit A-1.15…[which] provides both the name of the relevant landowner, the parcel ID number, and the associated legal description for each parcel, where available."[59] This testimony is supported by Exhibit A-1.15: Participating Parcel List, the Applicant has provided the Parcel Identification Number (PIN), the acreage, the fenced in PV acreage, the owner name, legal description, and the township in which the participating parcel is located.[60] The Applicant also provided the Identification Number (PIN), the acreage, the owner name, legal description, and the township for each non-participating parcel adjacent to the Project.[61]

Q. What does Staff recommend with regard to the participating parcel list?

A. Staff recommends the Commission find that the Applicant has provided a participating parcel list, as defined and required by AFIP section 7.15.

Overall Conclusions and Final Recommendation

Q. What is Staff's position regarding whether the Applicant has or will execute a project labor agreement, as defined by MCL 460.1221(u)(i)-(vi) and required by MCL 460.1226(7)(e)(iii)?

A. For the reasons discussed above, Staff recommends the Commission find that the Applicant provided sufficient evidence to demonstrate its commitment to execute a project labor agreement, as defined by MCL 460.1221(u)(i)-(vi) and required by MCL

[59] Direct Testimony of witness Korpar, p 6.
[60] Company Exhibit A-1.15, pp 1-2.
[61] *Id*., at pp 4-6.

460.1226(7)(e)(iii). Staff recommends the Commission condition the grant of a certificate on the language of proposed minimum condition 20, outlined below.

Q. What is Staff's position regarding whether the public benefits of the proposed energy facility justify its construction, as defined and required by MCL 460.1226(7)(a)?

A. Staff's position is that the record is sufficient for the Commission to find that the Applicant demonstrated that the public benefits of the Project justify its construction, as defined and required by MCL 460.1226(7)(a). However, based on Staff's evaluation, the projections the Applicant provided within Exhibit A-8.1: Tax Revenue, may not reflect the exact total revenue and the exact average annual revenue each affected local unit may receive, as the Applicant did not include applicable administrative fees, such as those applied under the Property Tax Administration Fee of MCL 211.44, within their calculations. Therefore, Staff recommends that if the certificate is approved, the Applicant must provide updated tax revenue calculations, including any applicable administrative fees applied under the Property Tax Administration Fee of MCL 211.44 as a part of their tax revenue to the affected local unit if they are imposed, as stated in Staff's proposed Condition No. 28. These costs should also be included in the updated tax revenue calculations.

Q. What is Staff's position regarding whether the Applicant will comply with applicable project labor stipulations, as required by MCL 460.1226(7)(e)(i)-(ii)?

A. For the reasons discussed above, Staff recommends the Commission find that the Applicant provided sufficient evidence to demonstrate its commitment to comply with applicable project labor requirements, as defined and required by MCL 460.1226(7)(e)(i)-

(ii). Staff recommends the Commission condition the grant of a certificate on the language of proposed minimum condition 20, outlined below.

Q. What is Staff's position regarding whether the Applicant has or will enter into a host community agreement and/or community benefits agreement, as defined and required by MCL 460.1226(7)(d)?

A. For the reasons discussed above, Staff recommends the Commission find that the Applicant provided sufficient evidence to demonstrate its commitment to enter into host community agreements or community benefits agreements, as defined and required by MCL 460.1226(7)(d), subject to the conditions below. The evidence also supports that such agreement will provide sufficient public benefit to justify a certificate.

Q. What is Staff's position regarding whether the Applicant has provided a participating parcel list, as defined and required by AFIP section 7.15?

A. For the reasons discussed above, Staff recommends the Commission find that the Applicant has provided sufficient evidence describing its participating parcel list, as defined and required by AFIP section 7.15.

<u>Proposed Minimum Conditions</u>

Q. Which of Staff's proposed conditions are you recommending?

A. I recommend the following of Staff's modified proposed minimum conditions (PMCs) and new conditions for consideration by the Commission based on my supporting testimony above. Proposed language for these conditions is also included in Exhibit S-2.1- redlined and Exhibit S-2.2-clean, sponsored by Staff witness Mullkoff:

Modified PMC No. 20:

> 20. The Applicant is required to execute a project labor agreement or collective bargaining agreement with one or more labor organization(s) compliant with the statutes of MCL 460.1221(u)(i)-(vi) and MCL 460.1226(7)(e)(i)-(iii) prior to work being performed.

Addition of the following subitem to modified PMC No. 2, in which, prior to the pre-construction meeting, the Applicant is required to:

> (f) Provide the signed and executed project labor agreement or collective bargaining agreement consistent with Condition 20.

to the Commission through the docket in the Case No. U-22044.

Condition No. 27:

> 27. The Applicant is required to enter into a host community agreement with each of the ALUs. The host community agreements must, at a minimum, guarantee $2,000 per megawatt of nameplate capacity located within the respective ALU. Such payments must be made upon commencement of operation of the facility. The Applicant must submit each executed host community agreement to the docket in Case No. U-22044. Should the Applicant be unable to execute host community agreements after good-faith negotiations with each ALU, the Applicant is required to enter into community benefits agreements with one or more community-based organizations providing benefits within or serving the residents of each ALU without a signed host community agreement. The community benefits agreement must, at a minimum, guarantee $2,000 per megawatt of nameplate capacity located within the respective ALU in the form of payments to be used for community benefits. Such payments must be made upon commencement of operation of the facility. The Applicant must submit the executed community benefits agreement to the docket in Case No. U-22044.

Addition of the following subitem to modified PMC No. 2, in which, prior to the pre-construction meeting:

> 2. (i) If the Applicant is unable to execute host community agreement(s) after good-faith negotiations with an ALU or ALUs, it must provide a plan identifying one or more community-based organizations providing benefits within or serving the residents of the applicable ALU(s), with which the Applicant may execute a community benefits agreement. The Applicant must thoroughly explain how the community benefits agreement executed with the community-based organization(s) will

> prioritize benefits to the communities in which the energy facility is to be located.

This plan must be filed to the Commission through the docket in Case No. U-22044.

Condition No. 28:

> 28. Within 60 days of the commencement of operation of the Facility, the Applicant is to have the project's tax value assessed, and is required to provide updated tax revenue estimates based upon the assessment, which must include any construction costs to date and any applicable administrative fees under the Property Tax Administration Fee of MCL 211.44, for each of the ALUs based upon the most updated millage rates from all eligible local taxing jurisdictions available. The estimates must detail the tax revenue generated year over year through each specific millage rate to which the project would be subjected. The Applicant must submit the updated estimates to the docket in Case No. U-22044.

Q. Does that conclude your testimony?

A. Yes, it does.

S T A T E O F M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of	)	
GLACIER MEADOWS SOLAR, LLC	)	
for a Renewable Energy or Storage	)	Case No. U-22044
Siting Certificate to construct a solar	)	
energy facility.	)	
	)	

QUALIFICATIONS AND DIRECT TESTIMONY OF

HOUTAN MOAVENI
ON BEHALF OF

MICHIGAN PUBLIC SERVICE COMMISSION STAFF

July 20, 2026

QUALIFICATIONS OF HOUTAN MOAVENI
CASE NUMBER U-22044
PART I

Q. Please state your full name and business address.

A. My name is Houtan Moaveni. My business address is 1150 Connecticut Ave NW #401, Washington, DC 20036.

Q. By whom are you employed and in what capacity?

A. I am employed as a Vice President at Grid Strategies LLC. I have been retained by the Michigan Public Service Commission Staff (Staff) to provide technical and regulatory testimony in this proceeding, and I am testifying on behalf of Staff.

Q. What is your educational background?

A. I earned a Bachelor of Science in Electrical Engineering from the University of Tehran and a Master of Science in Energy Management and Policies from École Nationale Supérieure des Mines de Paris.

Q. Please briefly summarize your qualifications.

A. I have over 19 years of experience in the energy sector, including more than a decade in senior leadership roles in New York State government, where I planned, launched, and implemented some of the largest, most complex, and impactful clean energy initiatives in the country. In my current capacity, I provide advisory services regarding federal and state energy policy, siting and permitting processes, transmission system planning, and generation interconnection. My work has spanned the full lifecycle of energy infrastructure development, from local and state permitting, to interconnection policy, to long-range transmission planning and cost allocation. This foundation has equipped me with the ability to analyze complex regulatory issues and technical trade-offs, and craft policy solutions that drive equitable and efficient energy system transformation.

QUALIFICATIONS OF HOUTAN MOAVENI
CASE NUMBER U-22044
PART I

Prior to my current role, I served as the founding Executive Director of the New York State Office of Renewable Energy Siting (ORES), where I established the nation's first state agency dedicated solely to the siting of major renewable energy and transmission projects. Under my leadership, New York's permitting process was transformed, resulting in the approval of over 2.3 gigawatts (GW) of renewable energy capacity, more than the State's prior siting process had approved over the preceding nine years. Most permits were issued within eight months of application completion, setting a record-breaking pace. Notably, all ORES permits and regulations have withstood court challenges, underscoring the strength and rigor of the framework.

Previously, I served as the Director of Facility Certification and Compliance at the New York State Department of Public Service (DPS), where I oversaw the certification and compliance of all electric generation and transmission facilities across the state. My time at DPS was instrumental in advancing numerous large-scale energy and transmission projects. Prior to DPS, I served as Senior Advisor to the CEO and President of the New York State Energy Research and Development Authority (NYSERDA), where I co-led the state's $1 billion solar initiative, positioning New York as a national leader in distributed solar deployment. Through extensive boots-on-the-ground outreach, including engagement with over 350 municipalities and 3,000 local officials, I built consensus among diverse groups, addressing community concerns while advancing clean energy goals. My efforts included critical aspects of clean energy development, such as land use and zoning laws, environmental and agricultural land protection, and Payment-in-Lieu-of-Taxes (PILOT) negotiations. Within three years, these efforts contributed to over 3 GW of large-scale solar, energy storage, and wind in New York's development pipeline. Earlier in my career, I held key roles at the New York Power Authority (NYPA) and the Florida Solar Energy Center (FSEC), further solidifying my expertise in renewable energy and power systems.

Q. Have you previously presented testimony before the Commission?

A. Yes. I have provided testimony for MPSC Case No. U-21932, Acceleration Solar, LLC, MPSC Case No. U-21956, Otisville PV I, LLC, MPSC Case No. U-21962, Washtenaw Solar Energy LLC, and MPSC Case No. U-22004, Headland Solar, LLC.

Q. Please define any terms you use in this testimony.

A. In this testimony:

(1) “AFIP” means the Commission’s Application Filing Instructions and Procedures.

(2) “Applicant” and “Company” mean Glacier Meadows Solar, LLC.

(3) “Commission” and “MPSC” mean the Michigan Public Service Commission.

(4) “PA 233” means Public Act 233 of 2023.

(5) “Project” or “Facility” means the Glacier Meadows Solar energy facility proposed under PA 233 in MPSC Case No. U-22044.

(6) “Application” means Applicant’s application for a siting certificate in MPSC Case No. U-22044, together with the direct testimony of Company witnesses, exhibits and attachments, including Applicant’s Exhibit A-1.7, and other materials filed in this docket to the extent referenced.

(7) “ISO 9613-2:2024” refers to the 2024 edition of ISO 9613-2, Acoustics — Attenuation of sound during propagation outdoors — Part 2: Engineering method for the prediction of sound pressure levels outdoors.

(8) “ISO 3746” refers to ISO 3746, Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane, a survey-grade method for determining equipment sound power levels.

(9) “Attachment D” refers to AFIP Attachment D (Sound Report and Monitoring Requirements).

(10) "ANSI" stands for the American National Standards Institute.[1]

Q. What is the scope of your testimony?

A. The scope of this testimony is to present Staff's positions regarding Glacier Meadows Solar, LLC's request for a certificate under PA 233, Michigan Compiled Laws (MCL) 460.1221, et seq., as those matters relate to sound modeling, demonstration of compliance, preconstruction baseline monitoring, postconstruction verification monitoring, and complaint-response enforcement.

Q. Please identify the exhibits that fall under your testimonial purview.

A. My testimony addresses matters relating to the Applicant's Exhibit A-1.7 (Sound Report and Monitoring Protocol) and the supporting direct testimony of Company witnesses Mark Bastasch (Exhibit B-7) and Kristofer Tassis (Exhibit B-8).[2]

Q. Are you sponsoring any exhibits as part of your direct testimony?

A. Yes, I am sponsoring three exhibits:

(1) Exhibit S-9.1: Excerpts of Staff's Eighth Discovery Request and Company's Responses, including the Company's First Supplemental Response (July 16, 2026).

(2) Exhibit S-9.2 (Confidential): GE Vernova Flexinverter Sound Power Data Sheet (GlacierMeadows0000192).

(3) Exhibit S-9.3 (Confidential): Supplemental Modeling Workbook produced as GlacierMeadows0000641.

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[1] MPSC, Application Filing Instructions and Procedures for Renewable Energy and Energy Storage Siting Certificate (Oct. 10, 2024) (AFIP), §§ 1.2-1.3 & Attachment D; 2023 PA 233, § 221; ISO 9613-2:2024, Acoustics — Attenuation of sound during propagation outdoors — Part 2.

[2] Exhibit A-1.7 (Sound Report and Monitoring Protocol); Appendix III, Exhibit B-7 (Direct Testimony of Mark Bastasch) & Exhibit B-8 (Direct Testimony of Kristofer Tassis).

Aspects of my review led to recommendations for proposed conditions, if a certificate is issued; those conditions are reflected in Exhibits S-2.1 and S-2.2, sponsored by Staff witness Sarah Mullkoff.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to: (1) summarize my review of the Applicant's sound-related filings, (2) describe the applicable sound standard and the Commission's AFIP sound-report requirements, (3) identify issues that should be resolved through final compliance filings and enforceable certificate conditions, and (4) recommend that the Commission approve the Project as it relates to sound, subject to enforceable certificate conditions that require a final compliance filing, preconstruction baseline monitoring, postconstruction verification monitoring, and enforceable complaint-response and mitigation provisions. These recommended conditions do not alter the statutory sound limit; rather, they ensure that compliance with MCL 460.1226 can be demonstrated, verified, and enforced using the Commission's required application procedures.

Q. What sound standard governs the Project?

A. The Facility must comply with MCL 460.1226(8)(a)(iv). For a solar energy facility, the statute requires that the facility not generate a maximum sound in excess of 55 average hourly A-weighted decibels (55 dBA, Leq, 1-hour), as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property.[3]

Q. What Commission guidance applies to the Applicant's sound modeling?

[3] 2023 PA 233, MCL 460.1226(8)(a)(iv); AFIP Attachment D, D3.4, p. 70.

A. The Commission's AFIP includes detailed sound-report requirements in Attachment D. Attachment D specifically requires preconstruction modeling using ISO 9613-2:2024, and it also states that where ambiguity exists, the parameters in Table 1 must be used. Attachment D further provides expectations for preconstruction sound monitoring, postconstruction sound monitoring, and documentation items required to be submitted.[4]

Q. Please summarize key AFIP Attachment D Table 1 parameters relevant to your review.

A. Table 1 requires receptors to include all dwellings within 1 mile of any facility sound source and specifies receptor/grid heights for non-wind facilities of 4.0 meters for two-or-more-story dwellings, 1.5 meters for one-story dwellings and property boundaries, and—if sound barriers are proposed—the height of the highest window for each dwelling. Table 1 applies a +5 dB tonal penalty to source sound power unless the specific Table 1 showing is made to remove it, and it requires a +6 dB facade adjustment. Table 1 further requires inclusion of all sources within 8,000 meters and a separate cumulative model run including other energy facilities with an application submitted prior, approved, or built within 2 miles of the facility.[5]

Q. What materials did you review for purposes of your sound report and monitoring protocol testimony?

A. I reviewed the Applicant's Exhibit A-1.7, including the modeling approach, stated inputs, receptor selection, assumptions, modeled results, proposed mitigation, and postconstruction sound monitoring protocol, along with the supporting direct testimony of Company witnesses Bastasch (Exhibit B-7) and Tassis (Exhibit B-8). I reviewed the

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[4] AFIP § 7.7(a), pp. 27-28; AFIP Attachment D, D1.1.1, pp. 49-50.
[5] AFIP Attachment D, Table 1, Sound Modeling Parameters, pp. 49-51.

Applicant's responses to Staff's Eighth Discovery Request, including the GE Vernova one-third-octave-band sound power data produced as GlacierMeadows0000192. I further reviewed the Applicant's First Supplemental Response to Staff's Eighth Discovery Request, served July 16, 2026 and excerpted in Exhibit S-9.1, including the corrected Table A-1 produced as GlacierMeadows0000550–GlacierMeadows0000587, the transformer source documentation and tonality analysis produced as GlacierMeadows0000588–GlacierMeadows0000640, the confidential supplemental modeling workbook produced as GlacierMeadows0000641 and included as Exhibit S-9.3, and the native CadnaA model files produced therewith. I finally reviewed the AFIP, including Attachment D, Table 1, and the monitoring and documentation provisions for preconstruction and postconstruction submissions.[6]

Q. What are the Project's principal operational sound sources?

A. Based on Exhibit A-1.7, the principal operational sound sources are the inverter cooling systems associated with the 56 GE Vernova Flexinverter units and the two 167 MVA substation step-up transformers, including their cooling fans. The controlling receptor is located near the Project substation, indicating that the substation transformers are the dominant source for purposes of the compliance showing.[7]

Q. What modeling approach and key inputs does the Applicant report using?

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[6] Exhibit A-1.7, including Attachment A (Sound Assessment) and Attachment B (Post-Construction Sound Monitoring Protocol); Appendix III, Exhibits B-7 & B-8; AFIP Attachment D & Table 1, pp. 49-51; Glacier Meadows Solar, LLC's Response to the Michigan Public Service Commission Staff's Eighth Discovery Request (July 9, 2026) (Exhibit S-9.1); Exhibit S-9.2 (Confidential), GE Vernova Flexinverter Sound Power Data Sheet (GlacierMeadows0000192). See also Glacier Meadows Solar, LLC's First Supplemental Response to Staff's Eighth Discovery Request (July 16, 2026) (excerpted in Exhibit S-9.1); Exhibit S-9.3 (Confidential), Supplemental Modeling Workbook (GlacierMeadows0000641).

[7] Exhibit A-1.7, Attachment A (Glacier Meadows Solar Project Sound Assessment, Feb. 2026) (Sound Assessment), § 4 (Operational Noise Levels) & Table 4-1 (Equipment Sound Power Levels Used to Model the Facility), pp. 17-18.

A. The Applicant reports using ISO 9613-2:2024 and the Cadna/A model developed by DataKustik GmbH.[8] The model includes 56 GE Vernova Flexinverter units and two 167 MVA substation transformers, a ground factor of 0.5, no meteorological adjustment (Cmet = 0), atmospheric conditions of 10°C and 70 percent relative humidity, a modeling uncertainty adjustment of +0 dB, omnidirectional sources, and no foliage attenuation.[9] Exhibit A-1.7 states that the inverter sound-power levels were provided by the equipment vendor, GE Vernova, per ISO 3746, and that the substation transformer sound-power levels were derived from Crocker (2007) and preliminary vendor data for 167 MVA transformers with a NEMA TR-1 rating of 85 dBA.[10] The model predicts sound at noise-sensitive receptors located within 1 mile of any facility sound source. Exhibit A-1.7 further states that no other energy facility with an application submitted prior to this facility, or approved or built, is located within 2 miles of the Project; accordingly, no separate cumulative impact model run was required under AFIP Table 1.[11]

Q. Does the Applicant's modeling incorporate the AFIP tonal penalty and the facade adjustment?

A. The Applicant applied the +6 dB facade pressure-doubling adjustment to all modeled receptors. With respect to the +5 dB tonal penalty, the Applicant applied the penalty to the substation transformers but removed it for the inverters. The Applicant states that, based on the vendor sound-power data and an analysis of inverter tonal characteristics under the criteria in ANSI S12.9 Part 3, the inverters do not exhibit tonal prominence, and the +5 dB

[8] Sound Assessment, § 4; Exhibit A-1.7, p. 17.
[9] Sound Assessment, § 4 (modeling parameters); Exhibit A-1.7, pp. 17-18.
[10] Sound Assessment, Table 4-1 & Notes; Exhibit A-1.7, p. 18.
[11] Sound Assessment, § 4 & Table 3-1 (Regulatory Requirement Crosswalk); Exhibit A-1.7, pp. 16 & 18.

inverter tonal penalty was therefore not applied.[12] The Company's Exhibit A-1.7 does not include the underlying one-third-octave-band or narrowband data or receptor-level tonal-prominence calculations needed to independently verify that conclusion.[13] In response to Staff's Eighth Discovery Request, the Applicant produced the GE Vernova one-third-octave-band sound power data for the modeled inverter configuration and confirmed that the acoustic model assumes the GE Flexinverter SLR-PS-XXX-1030-156X with standard ventilation hoods, operating at rated power with 100 percent fan speed.[14] [redacted] The Applicant also stated that the tonal penalty was evaluated based on the source sound power data alone, that "[t]he potential masking provided by ambient sound levels was not considered." In its First Supplemental Response, served July 16, 2026, the Applicant stated that "[n]o reliance has been made on analysis of the background sound data to support removal of the +5dB penalty for the inverters" and produced a sensitivity model run retaining that penalty, which I discuss below.[15] In response to Staff's request for the receptor-level tonal-prominence calculations, the Applicant identified only the source-level GE Vernova data sheet as the basis of its tonal-prominence analysis; the receptor-level calculations themselves have not

[12] Sound Assessment, § 4 & Table 3-1 (Tonal prominence) (no +5 dB tonal penalty applied to inverters; +5 dB tonal penalty applied to the substation transformers); id., Table 1 (Façade pressure doubling); Exhibit A-1.7, pp. 12 & 16.
[13] Sound Assessment, § 4 & Table 4-1 (reporting inverter sound power levels by full octave band only); Exhibit A-1.7, p. 18.
[14] Exhibit S-9.1, Response A.1.a, p. 2; Exhibit S-9.2 (Confidential), p. 2.
[15] Exhibit S-9.1, Responses A.1.d–A.1.f & B.1, pp. 2-3; Exhibit S-9.2 (Confidential), p. 2. See also Exhibit S-9.1, First Supplemental Responses A.1.c–A.1.g, pp. 2-3; Exhibit S-9.3 (Confidential), Tab A.1.f.

been provided. The First Supplemental Response instead provides a source-level tonality screening, discussed further below.[16]

Q. What does Exhibit A-1.7 report for worst-case modeled sound levels and compliance margin?

A. Exhibit A-1.7 reports a highest predicted free-field operational sound level of 43 dBA before application of the tonal penalty at nonparticipating receptor R241, which is located near the substation. With the +5 dB transformer tonal penalty and the +6 dB facade adjustment applied, the highest predicted facade-adjusted sound level is 54 dBA at R241. That value is 1 dB below the 55 dBA statutory limit. Unrounded results produced in the Applicant's First Supplemental Response show [redacted]. The Applicant notes that R241 is not the "nearest dwelling" to the facility's sound sources but is the nonparticipating receptor predicted to experience the highest sound level. Accordingly, although the Applicant's model predicts compliance, the modeled showing includes only a narrow margin of less than 1 dB at the controlling receptor.[17]

Q. What principal sound-related issues did you identify in your review of the Company's application and discovery responses?

A. I initially identified seven principal issues in my review of the application and the Applicant's July 9 discovery responses; as discussed below, the Applicant's July 16 First Supplemental Response resolves two of those issues (the sixth and seventh) but does not

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[16] Exhibit S-9.1, Response A.1.c, p. 2. See also Exhibit S-9.1, First Supplemental Response A.1.c, p. 2; Exhibit S-9.3 (Confidential), Tab A.1.c.

[17] Sound Assessment, Executive Summary & § 6 (Conclusion), Exhibit A-1.7, pp. 5 & 19; id., Attachment B (Tabulated Model Results), p. 29, & Attachment C (Predicted Sound Pressure Levels with +6 dB Façade Pressure Doubling and +5 dB Tonal Penalty), p. 39. Unrounded results: Exhibit S-9.3 (Confidential), Tab D.2; see also Exhibit S-9.1, First Supplemental Response D.2, p. 6.

resolve the remaining five. First, the highest modeled result is 54 dBA, only 1 dB below the statutory limit, leaving little modeled margin for final equipment, layout, source-data, mitigation-performance, or construction variations, particularly because Exhibit A-1.7 expressly states that the modeled equipment is "representative" and "subject to change." Second, the modeled finding of compliance is contingent on substantial mitigation. The results rely on sound barriers around the substation transformers modeled at 8.5 meters tall, and the controlling receptor (R241) is located near the substation.[18] If the final barrier design, height, placement, or acoustic performance differs from what was modeled, the compliance showing could be affected. I also note that an 8.5-meter (approximately 28-foot) barrier is a substantial acoustic mitigation feature, and because it is part of the modeled compliance showing, its final design, height, placement, material, openings, absorptive treatment, constructability, and as-built acoustic performance should be confirmed rather than assumed. In discovery, the Applicant confirmed that the sound barrier design is not final and stated that the final design will be developed based on final vendor submittals for the transformers, anticipated in Q2 2027. The Applicant's First Supplemental Response quantifies the barriers' role in the compliance showing: without the barriers, unrounded facade-adjusted levels reach [redacted][19] Third, because sound barriers are proposed, AFIP Table 1 requires the receptor/grid height to be set at the height of the highest window for each dwelling; Exhibit A-1.7 instead

[18] Sound Assessment, § 5 (Proposed Mitigation), Exhibit A-1.7, p. 19 (barriers "currently modeled to be 8.5 meters tall and are the basis of the results, sound contours, and finding of compliance").
[19] Exhibit S-9.1, Response D.1.e, p. 5. See also Exhibit S-9.1, First Supplemental Responses D.1–D.2, pp. 5-6; Exhibit S-9.3 (Confidential), Tab D.2 (modeled results with and without the barriers).

reports default receptor heights of 1.5 and 4.0 meters based on the number of stories. Because the acoustic performance of a barrier generally decreases as receptor height increases, this parameter selection could understate predicted sound levels at upper-story windows of dwellings near the substation, and the final compliance filing should either model receptors at the highest-window height or justify the receptor heights used. Fourth, the substation transformer source data, which drives the controlling receptor, is based on Crocker (2007) and preliminary vendor data rather than final manufacturer test data,[20] so final source-data documentation is necessary to confirm the compliance showing. In its First Supplemental Response, the Applicant produced the underlying transformer source documentation and stated that final manufacturer-guaranteed or tested sound power data for the transformers are not expected until mid-to-late 2028, confirming that the compliance showing will rest on estimated source data for an extended period.[21] Relatedly, the inverter sound-power data were reported per ISO 3746, while the model applies a modeling uncertainty adjustment of +0 dB; given the modeled margin of less than 1 dB, the final compliance filing should either confirm the final equipment source data and associated uncertainty or otherwise account for source-data uncertainty. Fifth, the Applicant removed the +5 dB tonal penalty for the inverters based on vendor data, but AFIP Table 1 permits removal of the tonal penalty only upon a showing that the facility would not have tonal prominence at a dwelling when the measured background sound of the lowest hourly L90 is added; because no preconstruction baseline monitoring was

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[20] Sound Assessment, Table 4-1, Notes; id., § 4 ("these data are representative and detailed vendor specifications will ultimately be developed"); Exhibit A-1.7, p. 18.

[21] Exhibit S-9.1, Responses C.1–C.3, pp. 3-4. See also Exhibit S-9.1, First Supplemental Response C.1, p. 4 (producing GlacierMeadows0000588–GlacierMeadows0000640; final manufacturer-guaranteed or tested transformer sound data expected mid-to-late 2028).

conducted, that site-specific showing is not fully supported in the record. Sixth, the application as filed does not include a sensitivity model retaining the +5 dB inverter tonal penalty, so the Company's application does not show whether compliance would remain if that penalty is applied. Staff requested any such sensitivity analysis in discovery, and the Applicant's First Supplemental Response produced a sensitivity run retaining the penalty. The run confirms continued modeled compliance for the present configuration, resolving this issue, although the maximum modeled margin remains only [redacted] as discussed further below.[22] Seventh, Exhibit A-1.7, Attachment A, Table A-1 appears to include duplicate entries for inverters INV-53, INV-54, and INV-56 with coordinates matching INV-1, INV-2, and INV-3; as a result, Table A-1 lists 59 inverter source rows for a facility described as including 56 inverters. Staff asked the Applicant to confirm whether those duplicate entries were included in the Cadna/A model or are tabulation errors, and to provide corrected model results if duplicate sources were modeled; in its First Supplemental Response, the Applicant confirmed that the duplicate entries were tabulation errors that were not included in the Cadna/A model and produced a corrected Table A-1.[23] This resolves the discrepancy for the present preliminary configuration.

Q. Is the removal of the +5 dB tonal penalty for the inverters adequately supported in the Company's application materials and the discovery responses provided to date?

A. No. The removal is not adequately supported based on the materials provided in the Company's application. Under AFIP Table 1, the +5 dB tonal penalty applies to source

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[22] Exhibit S-9.1, First Supplemental Response A.1.f, p. 2; Exhibit S-9.3 (Confidential), Tab A.1.f [redacted]

[23] Exhibit S-9.1, Response E.2, p. 6; Sound Assessment, Attachment A, Table A-1, Exhibit A-1.7, pp. 26-27. See also Exhibit S-9.1, First Supplemental Response E.2, p. 6 (tabulation errors not included in the Cadna/A model; corrected Table A-1 produced as GlacierMeadows0000550–GlacierMeadows0000587).

sound power by default and may be removed only upon a showing that the facility would not have tonal prominence at a dwelling when the measured background sound of the lowest hourly L90 is added. The burden of making that showing rests with the Applicant; it is not Staff's burden to prove the inverters are tonal. Here, the Applicant did not conduct preconstruction sound monitoring, so there is no measured background L90 in the Company's application. The express showing required to remove the penalty therefore has not been fully documented at this time. In addition, tonal prominence under the ANSI S12.9 methodology is properly evaluated using one-third-octave-band or narrowband data, whereas Exhibit A-1.7 (Table 4-1) discloses only full-octave-band sound power levels for the inverters; the underlying one-third-octave or narrowband tonal-prominence calculations at the controlling dwellings are not in the report. In response to Staff's Eighth Discovery Request, the Applicant produced the GE Vernova one-third-octave-band source data, but the receptor-level tonal-prominence calculations remain outstanding. [redacted] A source-level band elevation does not itself establish tonal prominence at a dwelling, but it underscores the need for a receptor-level tonal-prominence analysis rather than a source-level screening alone. [redacted] To the extent the Applicant relies on that data sheet to remove the inverter tonal penalty, the final compliance filing should include source spectra and receptor-level tonal-prominence analysis sufficient to support that removal.[24] Moreover, the Applicant confirmed in discovery that it did not consider the potential masking provided by ambient sound levels, which confirms that the specific showing required by AFIP Table 1—no tonal prominence at a dwelling when the measured background sound of the lowest hourly L90 is considered—has not been made. In its First Supplemental Response, the Applicant went further, stating that no reliance was placed on background sound data and that, because tonality would not be expected in the near field of the inverters, "tonality would not be expected in the far field, regardless of any masking that would potentially [be] provided by background sound." That position substitutes a source-spectrum screening for the dwelling-level, background-referenced showing that AFIP Table 1 expressly requires.[25] For these reasons, Staff recommends that the final compliance filing either retain the +5 dB inverter tonal penalty or substantiate its removal strictly in accordance with AFIP Table 1, including measured background L90 data and a one-third-octave tonal-prominence assessment at the controlling dwellings.

Q. What would be the effect on compliance if the +5 dB tonal penalty were applied to the inverters?

A. Applying the penalty to the inverters narrows the compliance margin at inverter-dominated receptors but, based on the Applicant's supplemental sensitivity run, does not change the modeled finding of compliance for the present configuration. The tonal penalty is applied to source sound power, not to the combined sound level at a receptor. R241 is controlled by the substation transformer, which already carries the +5 dB penalty, so an inverter

[24] Exhibit S-9.1, Responses A.1.c–A.1.e & B.1, pp. 2-3; Exhibit S-9.2 (Confidential), p. 2. See also Exhibit S-9.1, First Supplemental Responses A.1.c–A.1.e, p. 2; Exhibit S-9.3 (Confidential), Tab A.1.c.
[25] Exhibit S-9.1, First Supplemental Response A.1.d, p. 2; Exhibit S-9.3 (Confidential), Tab A.1.c.

penalty would likely have little effect on that specific receptor. The penalty has a greater effect at receptors dominated by inverter sound, such as those farther away from the transformer, although the Applicant's supplemental sensitivity run shows that R241 remains the controlling receptor. At those receptors, adding +5 dB to the inverter source sound power could raise the facade-adjusted level by up to 5 dB, approaching the full 5 dB where inverter sound dominates the received level and less where the transformers contribute materially, depending on each location. Based on the Applicant's tabulated results, at least two nonparticipating receptors are currently modeled at 51 to 53 dBA facade-adjusted without any inverter tonal penalty: R270 at 53 dBA and R238 at 51 dBA, for each of which the closest facility sound source is an inverter rather than the substation transformers.[26] The Applicant's First Supplemental Response provides that model rerun. With the +5 dB inverter tonal penalty retained, the maximum mitigated facade-adjusted levels are [redacted].[27] The sensitivity run therefore shows no modeled exceedance for the present configuration, even with the inverter penalty applied. It also confirms, however, that the maximum modeled margin is only [redacted] and that compliance remains dependent on preliminary source data—including [redacted] and preliminary transformer data—a +0 dB modeling uncertainty adjustment, and substantial transformer sound-barrier mitigation whose final design has not been completed.

Q. Did you identify any other issues with Exhibit A-1.7 that should be corrected?

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[26] Sound Assessment, Attachment B (Tabulated Model Results), Exhibit A-1.7, p. 29 (R270 at 53 dBA and R238 at 51 dBA with +6 dB façade pressure doubling, with closest facility sound sources INV-31 and INV-21, respectively).
[27] Exhibit S-9.3 (Confidential), Tab A.1.f; see also Exhibit S-9.1, First Supplemental Response A.1.f, p. 2.

A. Yes. In its regulatory review, Exhibit A-1.7 quotes the statutory noise standard applicable to energy storage facilities, MCL 460.1226(8)(c)(iii), rather than the subsection applicable to solar energy facilities, MCL 460.1226(8)(a)(iv). The numerical limit of 55 average hourly dBA is the same under both subsections, so this does not change the applicable standard, but the final compliance filing should cite the correct solar subsection to avoid any ambiguity.[28] In response to Staff discovery, the Applicant confirmed that it is seeking a siting certificate for a solar energy facility—not an energy storage facility—and that only the noise standards governing solar energy facilities apply.[29]

Q. Has the Applicant provided a postconstruction verification monitoring protocol?

A. Yes. The Applicant has provided a postconstruction verification monitoring protocol, prepared by DNV and sponsored by Company witness Tassis. The protocol states that postconstruction sound monitoring will be conducted within the first year after the facility is constructed, that unattended long-term monitoring will occur over a period of at least 7 to 10 days or until sufficient valid data are obtained, whichever is later, and that, where possible, measurements will be conducted in the early spring or late fall, when biogenic sounds such as foliage, insects, and snow effects are less prominent.[30]

Q. What does the Applicant propose for postconstruction monitoring locations and complaint response?

A. The protocol proposes monitoring at representative locations for the two nonparticipating dwellings with the highest modeled sound levels, with up to three additional monitoring

[28] Sound Assessment, § 3.1, Exhibit A-1.7, p. 10 (quoting MCL 460.1226(8)(c)(iii), the standard for energy storage facilities); cf. MCL 460.1226(8)(a)(iv) (standard for solar energy facilities).
[29] Exhibit S-9.1, Response F.1, pp. 6-7.
[30] Exhibit A-1.7, Attachment B (Post-Construction Sound Monitoring Protocol), §§ 1.2–1.3, p. 43; Appendix III, Exhibit B-8 (Direct Testimony of Kristofer Tassis), pp. 3-4.

locations identified to represent areas where formal noise complaints are received. The protocol provides for a complaint resolution process with a goal of a 48-hour initial response. The protocol also recognizes that measurement locations have not been mapped because the Project design is not yet final, and it states that measurement locations will be finalized after the Project design is finalized. Accordingly, Staff recommends that the final monitoring locations be tied to the final design and the highest modeled receptor areas, including the substation vicinity that controls the compliance showing.[31]

Q. Based on the application and discovery responses, is the Project shown to comply with MCL 460.1226(8)(a)(iv) on a preconstruction modeling basis?

A. Based on the modeled results reported in Exhibit A-1.7, the Applicant's preconstruction showing predicts a maximum facade-adjusted sound level of 54 dBA (Leq, 1-hour) at the controlling nonparticipating dwelling, which is below, but very close to, the 55 dBA statutory limit in MCL 460.1226(8)(a)(iv). However, because that showing carries a margin of less than 1 dB [redacted] with the inverter tonal penalty retained, per the Applicant's First Supplemental Response) and depends on preliminary equipment data, a +0 dB modeling uncertainty adjustment, and substantial transformer sound-barrier mitigation whose final design has not been completed, final design verification and enforceable monitoring and mitigation conditions are necessary for Staff to recommend approval as it relates to sound. Additionally, Staff recommends baseline monitoring as a project-specific certificate condition, particularly because the removal of the inverter tonal penalty depends

[31] Exhibit A-1.7, Attachment B (Post-Construction Sound Monitoring Protocol), §§ 1.3, 1.8 (Noise complaint process and resolution), pp. 43 & 46-47.

on background L90 data that has not been measured, although the AFIP treats preconstruction baseline monitoring as optional for the initial application exhibit.

Q. What is your overall recommendation to the Commission regarding sound?

A. I recommend that the Commission approve the Project as it relates to sound, subject to enforceable certificate conditions requiring:

(1) a final compliance demonstration consistent with AFIP Attachment D using the final layout; the final equipment make, model, and source sound-power data, and associated source-data uncertainty; receptor heights consistent with AFIP Table 1, including the highest-window height for dwellings if sound barriers are part of the final design; and the final design and acoustic performance of the substation transformer sound barriers or equivalent mitigation. The final demonstration must also include a complete and internally consistent final source inventory and coordinate table confirming all modeled operational sound sources, together with unrounded modeled results and source-category contribution tables at the controlling receptor and any receptor modeled at 53 dBA or higher. It must either retain the +5 dB inverter tonal penalty or substantiate its removal in accordance with AFIP Table 1, including measured background L90 data and receptor-level tonal analysis;

(2) preconstruction baseline monitoring consistent with Attachment D;

(3) a construction noise control plan;

(4) postconstruction verification monitoring consistent with Attachment D under conditions associated with maximum facility sound emissions; and

(5) enforceable mitigation, interim operational controls, and complaint-response provisions if monitoring or complaint-triggered investigations demonstrate an exceedance.

Q. What is Staff's suggested language for conditions on those subjects?

A. Regarding preconstruction measures, Staff recommends that the Commission adopt the following language as a sub-item within Proposed Minimum Condition 2, itself modified as suggested by Staff witness Mullkoff:

e. At least 60 days prior to the pre-construction meeting, the Applicant is required to file to the docket the following:

i. Final Noise Modeling Report - a final noise modeling report demonstrating compliance using the final facility layout and final make and model of all operational sound sources, including inverter and transformer cooling systems and any auxiliary equipment, consistent with the AFIP Attachment D requirements. The final report must include the final source sound-power data and associated source-data uncertainty or a conservative uncertainty allowance, and the final substation sound-barrier design information, including height, length, location, material, transmission loss or insertion loss, absorptive treatment, and any openings or penetrations, with confirmation that the final barrier design is acoustically equivalent to, or more protective than, the modeled design. The final report must also include a complete and internally consistent final source inventory and coordinate table confirming all modeled operational sound sources, and disclose unrounded modeled results and source-category contributions at the controlling receptor and any receptor modeled at 53 dBA or higher. The final report must either retain the +5 dB tonal penalty for the inverters or substantiate its removal consistent with AFIP Table 1, including underlying one-third-octave-band or narrowband source data, receptor-level tonal-prominence calculations, and measured background sound (lowest hourly L90). If the Applicant seeks to remove the inverter tonal penalty, the final report must also include a sensitivity run retaining the penalty.

ii. Baseline Sound Monitoring Report - a baseline sound monitoring report, consistent with AFIP Attachment D pre-construction monitoring requirements.

iii. Construction Noise Control Plan - a plan describing major construction activities/equipment; standard work hours; exceptions/notice procedures; equipment maintenance/mufflers; idling limits; and specific controls for any high-noise activities, if applicable. When a complaint reasonably indicates material construction noise impacts, the Applicant must promptly investigate and implement corrective actions consistent with the construction noise control plan. If effective corrective actions cannot be implemented promptly, the Applicant is required to implement reasonable interim controls and adjust operations as necessary to address the complained-of impacts until controls are implemented.

Regarding postconstruction measures, Staff recommends that the Commission attach a modified version of Proposed Minimum Condition 10, with the changes reflected in Staff Exhibit S-2.1, and final text reading as follows:

> 10. Prior to commencement of commercial operation, the Applicant is required to contract with and pay for a qualified, independent third-party acoustic expert. Such expert is required to conduct post-construction sound monitoring in accordance with AFIP Attachment D, ensuring that facility operation is assessed in a variety of conditions, including those associated with maximum sound emissions from the facility. Post-construction sound monitoring shall be conducted within one year after commencement of commercial operation, unless otherwise directed by the Commission. The post-construction sound monitoring report must be submitted within 60 days of the end of field data collection. The Applicant is required to file the results in a report to the docket in Case No. U-22044.
>
> If the post-construction sound measurements or complaint-triggered monitoring demonstrate an exceedance of the statutory requirements, the Applicant is required to:
>
> (1) file to the docket in Case No. U-22044, within 30 days, a corrective action plan identifying source(s), mitigation measures, and schedule;
>
> (2) implement reasonable interim operational controls, including, where necessary to restore compliance, low-noise operating modes, curtailment, or temporary shutdown of the specific sound-emitting equipment while permanent mitigation is designed and installed;
>
> (3) implement permanent noise mitigation as expeditiously as practicable, not to exceed 90 days unless otherwise approved by the Commission;
>
> (4) repeat measurements, consistent with AFIP Attachment D, with mitigation measures in place until the statutory limits are met; and
>
> (5) file the results in a subsequent report to the docket in Case No. U-22044.

Finally, regarding general standards for facility operation, Staff suggests amendments to Proposed Minimum Condition 11 as reflected in Staff Exhibit S-2.1, with final text reading as follows:

> 11. The Applicant is required to design and operate the facility in compliance with MCL 460.1226(8)(a)(iv), and to demonstrate compliance with that statutory requirement upon request by the Commission in response to complaints.

Regarding the remainder of Proposed Minimum Condition 11 (requiring implementation of mitigation measures in response to non-compliance with the statutory requirement), Staff's position is that this requirement is already covered under the suggested amendments to Proposed Minimum Condition 10 described above.

Q. Does this conclude your direct testimony?

A. Yes.

S T A T E   O F   M I C H I G A N

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of GLACIER MEADOWS SOLAR, LLC for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.	))))))	Case No. U-22044

QUALIFICATIONS AND DIRECT TESTIMONY OF

TRAVIS B. WARNER

MICHIGAN PUBLIC SERVICE COMMISSION

July 20, 2026

QUALIFICATIONS OF TRAVIS B. WARNER
CASE NUMBER U-22044
PART I

Q. Please state your name and business address.

A. My name is Travis B. Warner and my business address is 7109 West Saginaw Highway, Lansing, Michigan 48917.

Q. By whom are you employed and in what capacity?

A. I am employed by the Michigan Public Service Commission (MPSC or the Commission) as a Public Utilities Engineer Specialist in the Energy Security Section of the Energy Operations Division.

Q. Would you please outline your educational background?

A. I earned a Bachelor of Science degree in Mechanical Engineering from Kettering University in 2008. Training I have completed includes:

- Annual Regulatory Studies Program sponsored by the National Association of Regulatory Utility Commissioners at Michigan State University; August 2009.

-MI CIMS (WebEOC) End-User Training; July 2017

-IS-100.b – Introduction to Incident Command System Training; January 2018

-IS-200.b – ICS for Single Resources and Initial Action Incidents Training; January 2018

-ICS 300 Intermediate ICS for Expanding Incidents Training; February 2018

- Site Plan Review Training; American Planning Association, Michigan chapter; December 2024

-Photovoltaic and Energy Storage Systems Online Learning Series; National Fire Protection Association (NFPA); March 2025

Q. Would you please outline your professional experience?

A. In 2009 I began working full-time as a Public Utilities Engineer within the Gas Operations Section of the MPSC. From 2009 to 2017 my responsibilities were to perform engineering duties related to the Commission's regulation of: natural gas production, proration, and transmission under Public Act 9 of 1929 (PA 9 of 1929); transportation of crude oil and petroleum products under Public Act 16 of 1929 (PA 16 of 1929); underground natural gas storage under Public Act 238 of 1923 (PA 238 of 1923); Certificate of Public Convenience and Necessity (CPCN) under Public Act 69 of 1929 (PA 69 of 1929); underground facility damage prevention and safety under Public Act 174 of 2013; gas safety standards under Public Act 165 of 1969; and other gas utility functions. In 2017 I began my current role within the Energy Security Section of the Michigan Agency for Energy (MAE) as an Engineering Specialist. While with MAE I provided technical support to the Pipeline Safety Advisory Board (PSAB) which included chairing a subcommittee of board members to review and make recommendations on Michigan's policies and procedures regarding pipeline siting. The subcommittee completed and presented its report to the PSAB, which was also included in the final PSAB report. In 2019, the MAE was dissolved, and the Energy Security Section was moved back into the MPSC. In 2020, I began serving as the Case Coordinator and Technical Lead for Commission Staff's (Staff) review of the application for siting approval of the Enbridge Line 5 Straits Replacement Project. The contested case spanned several years and culminated with a Commission order in December of 2023. In 2024, I became involved in the implementation of Public Act 233 of 2023 (PA 233) for renewable energy siting applications. I provided support in developing application filing instructions and guidance recommendations under MPSC Case No. U-21547. Since that time, I have been providing cross-sectional support to the Renewable Energy Storage and Siting Section (RESS) on work relating to review criteria, process development, and contracting with outside expertise relating to anticipated applications filed with the Commission. I have been involved in every case before the RESS section under PA 233 to date. My primary focus in that work has been on Emergency Response and Fire Response plans. I'm also serving as the Staff Technical Lead for one of the PA 233 applications currently under review.

Q. Have you previously presented testimony before the Commission?

A. I have submitted testimony and exhibits in the following cases:

Case No.	Case Description	Statute
U-16838	Enbridge Line 6B Replacement	PA 16 of 1929
U-17020	Enbridge Line 6B Phase 2 Replacement	PA 16 of 1929
U-17203	Consumers Energy 1200B Pipeline	PA 9 of 1929
U-17531	Presque Isle CPCN	PA 69 of 1929
U-17878	Wolverine Detroit Metro Access Pipeline	PA 16 of 1929
U-18118	Commission's Own Motion (Fee Schedule)	PA 299 of 1972
U-20763	Enbridge Line 5 Straits Replacement Project	PA 16 of 1929
U-21932	Acceleration Solar, LLC Facility	PA 233 of 2023
U-21962	Washtenaw Solar Energy, LLC Facility	PA 233 of 2023
U-21956	Otisville Solar PV I, LLC Facility	PA 233 of 2023
U-22003	Rouget Road Solar Farm, LLC Facility	PA 233 of 2023
U-22004	Headland Solar, LLC Facility	PA 233 of 2023

Q. Have you assisted with other cases before the Commission?

A. Yes, in over 16 years as an engineer in the MAE and MPSC, I have served as the lead Staff responsible for various pipeline siting and other applications and complaints under PA 9 of 1929, PA 16 of 1929, PA 69 of 1929, and PA 238 of 1923. I have also provided support in several rate cases at the MPSC. In total, I have participated in over fifty cases during my employment with the MPSC.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present Staff's positions on certain issues in the matter of Glacier Meadows Solar, LLC's (Applicant or Company) request for a certificate under PA 233, MCL 460.1221 *et seq*. I will refer to this request as "the application," which includes direct testimony and exhibits submitted to the docket by the Company in support of its request for a siting certificate, as well as revised versions of application materials. The application requests a certificate for the proposed Glacier Meadows Solar, LLC project (Project) as described by Staff witness Sarah Mullkoff.

I will specifically address requirements pertaining to the Emergency Response Plan (ERP) and the Fire Response Plan (FRP) based on MCL 460.1225, relevant requirements in the Commission's adopted "Application Filing Instructions and Procedures" (AFIP), as well as Staff's review of direct testimony and exhibits including:

- Company Exhibit A-1.9, Emergency Response Plan, sponsored by Company witness Marla Kopar;
- Company Exhibit A-1.10, Fire Response Plan, sponsored by Company witness Kopar;

Q. Are you sponsoring any exhibits in this case?

A. Yes, I'm sponsoring the following exhibit.

- Exhibit S-10.1: Company Responses 7 Through 10 to Staff's Ninth Discovery Request.

Q. Was this exhibit prepared by you or under your supervision?

A. Yes, it was.

Q. What is required by PA 233 and the AFIP regarding Emergency and Fire Response Plans?

A. MCL 460.1225(1)(q) requires that an application shall contain an FRP and ERP. Sections 7.9 and 7.10 of the AFIP detail information that must be included in the ERP and FRP. The AFIP requires that the ERP include information about consultation with local first responders and emergency contingencies, along with associated evacuation control measures and community notification procedures, as applicable to the project. The AFIP requires that the FRP includes similar information specific to fire emergencies. Both the ERP and FRP must also include commitments by the Applicant to review and update the plans periodically and to provide training and equipment as needed for first responders to respond to emergencies. As required, the Company submitted its preliminary ERP and FRP as Exhibits A-1.9 and A-1.10, respectively, as part of its application.

Q. Did the Company provide evidence of consultation or a good-faith effort to consult with local first responders and county emergency managers to ensure that the ERP and FRP are in alignment with acceptable operating procedures, capabilities, resources, site access, etc.?

A. Yes, the Company provided evidence that it initiated consultation, corresponded, and met with the Blissfield Fire Department, the Deerfield Fire Department, and the Lenawee County Emergency Management Department in April, 2025, and has made attempts toward consultation with the Blissfield Police Department and the Lenawee County Sheriff's Office.[1] The Blissfield Fire Department coverage area includes Blissfield Township and the Village of Blissfield.[2] The Deerfield Fire Department serves Deerfield Township.[3] The

[1] Company Exhibit A-1.9, p 5.
[2] https://www.blissfieldtownship.com/departments/fire-department/, June 9, 2026
[3] https://neris.fsri.org/departments/FD26091213, June 9, 2026

Company provided information pertaining to meetings and correspondence relating to consultation as attachments to the ERP and FRP.[4]

Q. Did the Company receive and incorporate input gained through consultation?

A. The ERP states that all fire department and first responder comments and suggestions were noted and adequately incorporated into the ERP to ensure the ERP aligns with operating procedures, capabilities, resources and site access.[5] The Company also provided meeting notes for the April 8, 2025 meeting that included representatives from the Blissfield Fire Department. Noteworthy topics of discussion include site access, area wildfires, access to water via shuttle service, potential for a dry hydrant connection to a nearby pond, equipment access and facility layout, on-site personnel training, fire detection and suppression equipment, and future collaboration and communication.[6]

Q. Did the Company complete an analysis of whether plans to be implemented in response to a fire or other emergency can be fulfilled by existing local emergency response capacity, as required by the AFIP (Sections 7.9(8) and 7.10(7))?

A. The ERP and FRP both state that, through consultation thus far, local first responders and county emergency managers did not express concern with local emergency response capacity in connection with either the Project or the ERP, and that Glacier Meadows is not presently aware of any deficiencies.[7,8] Staff acknowledges and appreciates the consultation progress that has been made thus far, and understands that considerations for finalization of the ERP and FRP may be dependent on further consultation and engineering design

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[4] Company Exhibit A-1.9, pp 40-77.
[5] *Id.*, at p. 5.
[6] *Id.*, at p. 44.
[7] *Id.*, at p. 35.
[8] Company Exhibit A-1.10, p 16.

determinations that will be made after the filing date for this testimony. The Company states that, "Glacier Meadows will ensure that appropriate equipment, resources, and training are in place to support effective emergency prevention and response activities. This includes tools and equipment tailored to the unique needs of the Project and its operations."[9] The Company makes a similar statement in the FRP: "Glacier Meadows, together with local first responders, will evaluate and recommend any specific equipment, resources, or training necessary to support effective fire prevention and emergency response activities. This may include specialized tools, firefighting equipment, or targeted training programs tailored to the unique needs of the Project and its operations."[10]

Given that consultation is ongoing with additional efforts anticipated, that aspects of engineering design components remain to be determined, and that the Company has made commitments to complete these analyses and provide equipment, resources, and training as needed, Staff considers these requirements sufficiently addressed.

Q. Has the Company satisfied the remainder of the requirements (AFIP Sections 7.9 and 7.10) in submitting the ERP and FRP?

A. The remainder of the requirements focus on identification of contingences that would constitute an emergency (fire emergencies are addressed in the FRP), and the associated response, evacuation, and community notification measures, as well as identification of approach and departure routes for first responders.

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[9] Company Exhibit A-1.9, p 35.
[10] Company Exhibit A-1.10, p 16.

The Company states that the ERP serves as a general safety document relating to emergencies, and that the Company will ensure alignment with the following standards to support facility operations:

• ISO 45001:2018 Clause 8.2 Emergency Preparedness and Response;

• OSHA 29 CFR 1910 Requirements for Emergency Response and Preparedness; and

• ISO 22301:2019 Business Continuity Management System.[11]

The Company also states that the FRP serves as a general safety document for fire-related emergencies, and that the Company will ensure alignment with the following standards to support facility operations:

• NFPA 70E – Electrical Safety in the Workplace;

• NFPA 850 – Fire Protection for Electric Generating Plants[12];

• OSHA 29 CFR 1910.39 and 1926.24 Requirements for Fire prevention plans; and

• Michigan Fire Prevention Code (Act 207 of 1941).[13]

Staff recognizes the ERP and FRP submitted at the time of the application filing are preliminary. As a specific example, the Company notes,

> Glacier Meadows anticipates coordinating further details of approach and departure routes for police, fire, ambulance, and other emergency vehicles; access points; fire protection equipment; fire hydrants; first aid; etc. with the local first responders and county emergency managers prior to start of construction. An evacuation route and corresponding map will be developed thereafter.[14]

Staff expects that final versions of the ERP and FRP will reflect updates and improvements to the plans resulting from the MPSC contested case process, and Staff recommends

[11] Company Exhibit A-1.9, p 4.
[12] The Company lists NFPA "855" in its filing, Staff assumes that NFPA 850 is the intended reference.
[13] Company Exhibit A-1.10, pp 5-6.
[14] Company Exhibit A-1.9, p 32.

As presented, the Company's ERP and FRP satisfy the minimum requirements of PA 233 and the AFIP for this stage of the project. Staff further notes that certain areas of the ERP and FRP are currently lacking in detail for purposes of final plans. Specifically, items identified in Staff's recommendation 2(a) through (c) described below should be considered areas of focus as consultation takes place and plans are finalized.

Q. What are Staff's recommendations relating to further development of the ERP and FRP?

A. Staff has two categories of recommendations relating to further development of the ERP and FRP:

1. Relating to both the ERP and FRP, Staff recommends additional and continuous efforts toward coordination with, at a minimum, the agencies with which the Company has already commenced consultation and any additional agencies recommended or identified through ongoing consultation. Staff emphasizes that a partnership with local first responders is integral to ensuring safety and transparency in the event of fire or other emergencies at the project site and to ensure that local jurisdictions have the training and resources to adequately respond to fires and other emergencies as discussed earlier in my testimony.

2. In addition to any updates and improvements gained through consultation with local first responders, Staff recommends focusing on the following topics of the ERP and FRP to include additional detail and clarity in the Company's final versions of these plans:

a. Evacuation Control Measures for applicable contingencies.

Staff recommends incorporating the existing and to-be-determined information provided in the Company's Discovery Response No. 8 to Staff's Ninth Discovery Request including

Plant/Site Manager roles and personnel/visitor protocols relating to evacuation and/or when persons on site will gather at a muster point or storm shelter location.[14]

b. ERP Section 3.1 – Catastrophic Equipment Failure (CEV).

Staff recommends adding information provided in the Company's Discovery Response No. 9 to Staff's Ninth Discovery Request which consists of information regarding the potential for CEV and how hazards caused by a release of Sulphur Hexafluoride gas would be mitigated by the current site design proposed.[15]

c. ERP Section 4.1 – Primary Access Roads and Entrance Locations.

Staff recommends updating future versions of the ERP with correct references to figures as described in the Company's Discovery Response No. 10 to Staff's Ninth Discovery Request.[16]

Q. What is Staff's recommendation on submittal of final versions of the ERP and FRP?

A. Staff's recommendation is that final versions of the ERP and FRP should be submitted to the docket in the instant case prior to construction. Staff proposes a modification to Proposed Minimum Condition (PMC) 2 to address this.

Q. What is Staff's proposed modification to PMC 2?

A. The recommended language for Condition 2 below, included also in Exhibit S-2.1, and as discussed in the testimony of Staff witness Mullkoff, shows modifications to PMC 2 consistent with the discussion above and reflects Staff's recommendations. Staff supports a modification to PMC 2 such that, prior to the pre-construction meeting, the Applicant is required to, among other final reports:

[14] Staff Exhibit S-10.1, p 2.
[15] *Id*., at, p 3.
[16] *Id*., at, p 4.

2. (b) Provide final versions of the Emergency Response Plan (A-1.9) and Fire Response Plan (A-1.10).

Q. Has the Company agreed to PMC 6 of the AFIP regarding emergency contact information?

A. Yes. The Company provided emergency contact information for the representative of the proposed facilities associated with the project in the instant case docket and will update at least annually or as necessitated by personnel changes as described in Exhibit A-14.[17]

Q. Does Staff have any recommendations for modifications to PMC 6 regarding emergency contact information?

A. Yes. Staff recommends inclusion of the following language, also provided as Condition 6 of Staff's proposed conditions, Exhibit S-2.1, which has been modified from PMC 6 for clarity and specificity in the instant case:

> 6 The Applicant is required to file emergency contact information for the facility representative in the docket in Case No. U-22044. Initial emergency contact information must be filed prior to commencing construction, and then on an annual basis, and at the time a change is made to the designated emergency contact(s).

Q. Has the Company agreed to PMC 14 of the AFIP regarding training for local first responders?

A. Yes, the Company has agreed to conduct additional training for local fire departments and other first responders upon request as described in Exhibit A-14.[18]

Q. Does Staff have any recommendations for modifications to PMC 14 regarding training for local first responders?

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[17] Company Exhibit A-14, p 2.
[18] Company Exhibit A-14, p 4.

A. Yes. Staff recommends inclusion of the following language, also provided as Condition 14 of Staff's proposed conditions, Exhibit S-2.1, which has been modified from PMC 14 for clarity and specificity in this case:

> 14 The Applicant is required to conduct or provide funding for additional training for local fire departments and other first responders prior to beginning commercial operations, and then upon request, but no more than once annually.

Q. Please provide a summary of your recommendations:

A. 1. Staff recommends that the Commission determine the ERP and FRP requirements have been sufficiently addressed for this phase of the Project, subject to the finalized plans being provided as described above.

2. Staff recommends the Commission adopt all of Staff's recommended conditions relating to the ERP and FRP, including the updated language to PMCs 2, 6, and 14 discussed above.

Q. Does this conclude your direct testimony?

A. Yes.