MPSC Certificate for Solar Energy, Wind Energy, and Energy Storage Facilities

Pursuant to Public Act 233 of 2023

Application Filing Instructions and Procedures

October 10, 2024

Dan Scripps, Chair
Alessandra Carreon, Commissioner
Katherine Peretick, Commissioner

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1. APPLICATION INSTRUCTIONS FOR RENEWABLE ENERGY & ENERGY STORAGE SITING CERTIFICATE

These application instructions apply to an electric provider or independent power producer (applicant) application for Michigan Public Service Commission (MPSC or Commission) approval of a Renewable Energy or Storage Siting Certificate (Certificate) for an energy facility under the provisions of Michigan Compiled Laws (MCL) 460.1221, *et seq*. (effective November 29, 2024). The application shall be consistent with these instructions, and any additional information considered relevant by the applicant may also be included in the application.

1.1 OBJECTIVES

These instructions have been developed to assist the applicant with the entire process associated with obtaining and complying with a Certificate. These instructions will clarify:

1. Who and what are eligible to apply for a renewable energy or storage siting certificate (Section 2).
    i. What are the pre-application requirements (Section 3).
    ii. What fees must be paid (Section 5).
    iii. What application documents/exhibits are required (Section 6.2).
    iv. What information is necessary to complete the application exhibits (Section 6.3 and Section 7).
    v. How the application is to be submitted (Section 6.1).
    vi. How more information can be obtained (Section 1.4).

1.2 PRIMARY REGULATORY CITATIONS

MCL 460.1221, *et seq*. (effective November 29, 2024).

Mich Admin Code, R 792.10401-R 792.10448.

1.3 KEY DEFINITIONS

Additional definitions can be found in **Attachment B**.

"**Affected local unit**" means a unit of local government exercising zoning authority in which all or part of a proposed energy facility will be located.

"**Certificate**" means a certificate issued for an energy facility under section 226(5) of Public Act (PA) 233 of 2023.

"**Chief elected official**" means a local government official including mayors, village presidents, township supervisors, and board chairs.

"**Compatible renewable energy ordinance**" or "**CREO**" means an ordinance that provides for the development of energy facilities within the local unit of government, the requirements of which are no more restrictive than the provisions included in section 226(8). A CREO under Act 233 may only contain the setback, fencing, height, sound, and other applicable requirements expressly outlined in Section 226(8), and may not contain additional requirements beyond those specifically identified in that section. A local unit of government is considered not to have a CREO if it has a moratorium on the development of energy facilities in effect within its jurisdiction.

"**MPSC**" or "**Commission**" means the state regulatory body in Michigan charged with serving the public by ensuring safe, reliable, accessible energy and telecommunications at reasonable rates.

"**MPSC Staff**" or "**Staff**" means the professional, independent, subject matter experts employed by the MPSC who are granted intervention by right in contested cases before the Commission.

1.4 MPSC CONTACT AND ADDITIONAL INFORMATION

For additional information on the Renewable Energy and Energy Storage Facility Siting Commission activities, additional resources and contact information visit: https://www.michigan.gov/mpsc/commission/workgroups/2023-energy-legislation/renewable-energy-and-energy-storage-facility-siting.

2. APPLICABILITY – WHO AND WHAT IS ELIGIBLE?

(a) Projects eligible to obtain a Certificate from MPSC include those where:

1. Landowners are willing to participate in allowing a solar, wind, or energy storage facility project on their property[1].

2. Nameplate capacities, measured in alternating current (AC), meet the following criteria:

    i. Solar facilities, including hybrid or co-located facilities comprised of solar and storage facilities, having a nameplate capacity of 50 megawatts (MW) or more.

[1] Participating or not participating in a renewable energy or energy storage project is a decision for individual landowners. Commission approval of a certificate under PA 233 does not confer the power of eminent domain or require landowners to participate against their wishes.

ii. Wind facilities, including hybrid or co-located facilities comprised of wind with solar and/or storage having a nameplate capacity of 100 MW or more.

iii. Energy storage facilities of nameplate capacity of 50 MW or more with a discharge capability of 200 megawatt hours (MWh) or more.

3. PRE-APPLICATION REQUIREMENTS

(a) The applicant must first apply for siting approval with the affected local unit(s) (ALU) when it has received notification from the chief elected official(s) that each ALU in which the project is sited has a CREO.

The pre-application process requires meetings and details are provided in **Attachment C**. A Pre-application Notification checklist of required notifications to be made is below:

☐ Chief Elected Officials Meeting Offer – 60 days before public meeting.

☐ Public Meeting Notice each ALU – 30 days before meeting.

☐ Public Meeting Notice copy to MPSC – 30 days before meeting.

☐ Public Meeting Notice newspaper(s) (each city and township) – 14 days before meeting.

☐ MPSC Staff pre-application meeting – 30 days prior to application submittal.

4. APPLICATION SUBMITTAL AND APPROVAL SCHEDULE

(a) Upon receipt of an application through MPSC's Electronic Docket Filings System (E-Docket) system, the MPSC Staff (hereinafter referred to as Staff) will determine whether the application is complete.

1. Staff has 60 calendar days to determine completeness.

2. At the time of the application filing, the applicant shall set up a virtual technical conference to include Staff and ALUs to view the site plan in an electronic format and to ask questions.

3. At the time of application filing, the applicant shall submit a copy of the site plan (or an internet address where the site plan can be reviewed) to the clerk of each ALU.

4. If Staff determines that the application is incomplete, Staff will file a memo in the case docket describing the application deficiencies.

5. Once the application is considered complete, the Commission has one year from the time of the complete application filing date to issue a certificate or deny the application.

i. The application is considered complete if no memo notifying the applicant that its application is incomplete has been filed in the docket within 60 days.

(b) Concurrent with Staff's review for completeness, a prehearing will be scheduled, and a Notice of Hearing will be filed in the docket containing noticing requirements for the applicant, and information for how interested persons may petition to intervene, or otherwise participate in the prehearing.

(c) If the application is considered complete, the schedule for the case will be set by the administrative law judge (ALJ) presiding over the case at the prehearing. The adopted case schedule will be posted to the case docket.

(d) At the time of the prehearing, the applicant must pay the base application fee (**Section 5**).

5. APPLICATION FEES

(a) The applicant is required to pay an application fee designed to cover the Staff's administrative cost in processing the evaluation, and also pay the costs for retaining consultants on specialty issues outside of the Staff's expertise.

1. At the time of the prehearing, an applicant not regulated by the MPSC is required to pay a one-time Base Application Fee of $10,000 to the MPSC Executive Secretary; if the applicant is regulated by the MPSC, no application fee is required.[2]

i. Payments must be made by check.

ii. Additional fees, such as contracting with subject matter expert consultants or costs pertaining to additional ongoing compliance may follow.

(b) Within 30 days of the application being deemed complete, Staff will provide an estimate to the applicant of total estimated fees, which includes the costs of consultants retained by the Commission. **Exhibit S-1 "Fee Exhibit"** will be posted to the docket. The applicant has an opportunity to contest the final assessed fees after the evidentiary record is closed.

[2] MCL 460.112 provides a funding system where regulated utilities are assessed for the cost of regulation. Since regulated utilities are already subject to an annual assessment, the Public Utilities Assessment, they are exempt from the Base Application Fee described here. However, if the applicant is a regulated utility, it may still be subject to additional fees as described in the Fee Schedule table.

Fees Schedule

RENEWABLE ENERGY & STORAGE SITING APPLICATION FEE SCHEDULE	
Base Application Fee - Applicable to applicants not regulated by the MPSC	
Contested case (includes up to 150 Staff hours)	$10,000
Additional Applicable to all applicants regardless if regulated by the MPSC	**Fees**
Additional MPSC Staff hours [3]	Billed hourly above application fee
Consultant Expert testimony	Actual Fees
External Public Meetings	Actual Fees
Court Fees - including transcription & court reporting[4]	Actual Fees
Environmental Reporting & Testing[5]	Actual Fees
Miscellaneous Filings & Additional Fees	
Miscellaneous maintenance following issuance of certificate	Actual fees billed hourly
Formal Complaints[6]	$500

(c) Further details about fees are provided below:

1. At the cross-examination or final evidentiary hearing in a contested case proceeding, whichever is later, Staff shall file an exhibit containing the total assessed fee, labeled, **Exhibit S-1.1**.

2. Within 14 days of the filing and service of the Fee Exhibit, the applicant shall file any objections to the total assessed fees.

3. Within 14 days of any objections filed, Staff shall file a response indicating its position on the disputed issues.

4. If a dispute remains after the required filings, the ALJ who presided over the proceedings shall include a decision regarding the total assessed fees in the

[3] Includes Staff time associated with the case proceeding through the completion of cross examination or final evidentiary hearing, whichever is later. This item also includes an additional forty (40) hours of Staff time to allow for working on briefs, reply briefs, and exceptions to the PFD.
[4] All hearing costs associated with Staff hours will be included in Additional MPSC Staff hours, not in "Court Fees". The applicant will not be responsible for any attorney fees accrued by any third-party intervenors to a contested case proceeding. Fees associated with the attorneys representing Staff will not be included in any fees assessed to the applicant.
[5] Any fees in this category are limited to those necessary to satisfy the Commission's required agency review and environmental obligations under MEPA, Part 17 of NREPA, MCL 324.1701 et seq.
[6] No formal complaint case fees will be assessed in cases which involve a regulated utility. Formal complaint cases which involve an applicant not regulated by the MPSC will have the fee paid by the applicant when the case is determined to be prima facie.

proposal for final decision (PFD) without further proceedings unless an additional hearing is deemed necessary.

5. The Commission may choose to "read the record", in which case a PFD will not be issued. In this event, the Commission reserves the right to address disputed issues and the total assessed fees in the final order.

6. The Commission will render a decision with regard to the total assessed fee in its final order.

7. Furthermore, if a contested case proceeding is settled by the parties and accrued Staff time does not exceed 150 hours, the base application fee of $10,000 must still be paid by the applicant, along with the additional fees.

8. There will be no reduction in the base application fee for a contested proceeding if Staff hours are less than 150 hours.

9. Environmental reporting and testing fees are limited to those related to the Commission's required agency review and environmental obligations.

10. Staff may provide a non-binding estimate of its expected hours and anticipated additional fees, upon the reasonable request of an applicant.

11. Staff should work informally with the applicant to give the applicant a sense of whether the fees associated with outside expert witnesses would be expected to support the Staff's case and the magnitude of such costs.

12. Fees associated with attorneys representing Staff will not be included in any fees assessed to the applicant under the provisions of MCL 460.1221 – 460.1232.

13. Staff hours associated with any appeal of a final Commission order will not be included in any fees assessed to the applicant under the provisions of MCL 460.1221 – 460.1232.

14. Staff hours included in the assessed fees for a contested case proceeding shall be hours associated with the contested case proceeding through the completion of cross examination, or final evidentiary hearing, whichever is later. Additionally, another 40 hours of Staff time will be included in assessed fees to account for Staff's efforts to work on initial briefs, reply briefs, and exceptions/replies to exceptions.

15. Staff may provide a summary of accrued Staff hours associated with a contested case proceeding and other known expenses that will be assessed as part of the additional fees, upon the reasonable request of an applicant.

16. The Commission may charge reasonable fees of ongoing Staff billable hours after a certificate has been granted for the lifetime of the project. Examples of

such costs may include, but are not limited to, the following: environmental site analysis if site plan has been altered, any project follow-up considerations post construction and operation, and other accounting, engineering, or legal aspects.

17. The cost for processing the application as a contested case shall not exceed $250,000, excluding costs for retaining consultation for specialty issues outside of MPSC expertise. Total costs for processing an application inclusive of consultation may exceed $250,000.[7]

6. APPLICATION FILING REQUIREMENTS

6.1 OVERVIEW AND PROCEDURES

(a) The application is comprised of a series of Exhibits and associated testimony that is filed through E-Dockets. The Exhibits take the form of maps, narratives, and Appendices with supporting documentation. Exhibit A-1.1 through Exhibit A-1.16 is the Site Plan, which must be completed prior to the public meetings and outreach activities. Exhibits A-2 through A-16 comprise the remaining components of the application.

(b) File the application which contains the required information and exhibits to the E-Docket. Each required exhibit must be addressed and should be numbered as listed in these guidelines.

(c) Submit a copy of the site plan (or an internet address where the site plan can be reviewed) to the clerk of each ALU.

(d) Make the one-time grant to each ALU. See **Section 6.4.1** for guidance.

(e) Provide notice of the opportunity to comment on the application as prescribed by the commission. The notice shall be published in a newspaper of general circulation in each ALU or a comparable digital alternative. The notice shall be written in plain, nontechnical, and easily understood terms and shall contain a title that includes the name of the applicant and the words “NOTICE OF INTENT TO CONSTRUCT _____ FACILITY”, with the words “WIND ENERGY”, “SOLAR ENERGY”, or “ENERGY STORAGE”, as applicable, entered in the blank space.

(f) The applicant shall send the notice of the public meeting by U.S. mail to postal addressees within one mile of proposed solar or energy storage facilities, and within two miles of proposed wind energy facilities, including to those addressees

[7] Costs incurred by the applicant for one-time grants, host and community agreements payments, or agreements with third-party independent monitors to comply with conditions of the permit (e.g. acoustics experts for sound modeling and measurements) are outside of the scope of application fees to process the contested case and are not included in the $250,000 cap.

within those specified boundaries that are not located within the bounds of the ALUs where the facilities will be located.

The Executive Secretary may provide further direction regarding public notice.

6.2 EXHIBIT LIST

(a) Each of the exhibits in **Table 6-1** and **Table 6-2** must be included in the application using the exhibit identifier provided. If the exhibit is not applicable to the type of application, please include the exhibit page and indicate "Intentionally left blank".

Tables 6-1 and **6-2** outline the exhibits required in the application and references the section that provides detailed information that must be included for each exhibit.

Table 6-1
Site Plan Exhibits

Site Plan Exhibit Number	Description	Site Plan Drawings Guidelines Section	Site Plan Narrative Guidelines Section
	Site Plan	Section 7	
A-1.1	Exhibit A-1.1 – Planned Facilities	7.1	
A-1.2	Exhibit A-1.2 – Area Land Use Information	7.2 (a)(1)-(10)	
A-1.3	Exhibit A-1.3 – Explanatory Information and Associated Appendices		7.3
A-1.4	Exhibit A-1.4 – Construction Information	7.4 (8)	7.4 (1) & related to Exhibit F-2 7.4 (2)-(7)
A-1.5	Exhibit A-1.5 – Alternatives	7.5	7.5
A-1.6	Exhibit A-1.6 – Changes	7.6	7.6
A-1.7	Exhibit A-1.7 – Sound Report and Monitoring Protocol	7.2 (9)	7.7(a)
A-1.8	Exhibit A-1.8 – Shadow Flicker Report for Wind Facilities	7.2 (10)	7.8
A-1.9	Exhibit A-1.9 – Emergency Response Plan		7.9
A-1.10	Exhibit A-1.10 – Fire Response Plan		7.10
A-1.11	Exhibit A-1.11 – Commissioning Plan		7.11
A-1.12	Exhibit A-1.12 – Emergency Operation Plan		7.12
A-1.13	Exhibit A-1.13 – Hazard Mitigation Analysis		7.13
A-1.14	Exhibit A-1.14 – Unanticipated Discoveries Plan		7.14
A-1.15	Exhibit A-1.15 – Participating Parcel List		7.15
A-1.16	Exhibit A-1.16 – Complaint Resolution Process		7.16

Table 6-2
Summary of Additional Application Exhibits

Application Exhibit Numbers	Description	Guidance Section
A-2	Exhibit A-2 – Project Description	6.3.2
A-3	Exhibit A-3 – Project Schedule	6.3.3
	Exhibits A-4.1 through A-4.5 – Local Outreach	6.3.4
A-4.1	Exhibit A-4.1 Chief Elected Official	6.3.4(1)
A-4.2	Exhibit A-4.2 Summary of Community Outreach and Education Efforts	6.3.4(2)
A-4.3	Exhibit A-4.3 - Accommodations or changes	6.3.4(3)
A-4.4	Exhibit A-4.4 - Summary of Agency Consultations	6.3.4(4)
A-4.5	Exhibit A-4.5 - Summary of Tribal Engagement	6.3.4(5)
A-5	Exhibit A-5 – NFPA Stationary Energy Storage System Compliance[8]	6.3.5
	Exhibits A-6.1 through A.6.4 – Environmental Compliance	6.3.6
A-6.1	Exhibit A-6.1 - Soil and Economic Survey Report	6.3.6(a)(1)
A-6.2	Exhibit A-6.2 Environmental Compliance Report	6.3.6(a)(2)
A-6.3	Exhibit A-6.3 Permit List and Status	6.3.6(a)(3)
A-6.4	Exhibit A-6.4 Stormwater Mitigation Plan	6.3.6(a)(5)
A-7	Exhibit A-7 – Signal Mitigation Plan	6.3.6(a)(4)
	Exhibits A-8.1 through A-8.5 – Public Benefits	6.3.8
A-8.1	Exhibit A-8.1 Tax Revenue	6.3.8(a)(1)
A-8.2	Exhibit A-8.2 Payments to Landowners	6.3.8(a)(2)
A-8.3	Exhibit A-8.3 Host Community and Community Benefits Agreements	6.3.8(a)(3)
A-8.4	Exhibit A-8.4 Local Job Creation	6.3.8(a)(4)
A-8.5	Exhibit A-8.5 Energy Needs Contributions	6.3.8(a)(5)
A-9	Exhibit A-9 – Farmland Protection	6.3.9
A-10	Exhibit A-10 – Public Health and Safety	6.3.10
A-11	Exhibit A-11 – Dark Skies[9]	6.3.11
A-12	Exhibit A-12 – Transmission and Interconnection Agreements	6.3.12
	Exhibits A-13.1 through A-13.3 – Decommissioning	6.3.13
A-13.1	Exhibit A-13.1 - Decommissioning Plan	6.3.13(a)
A-13.2	Exhibit A-13.2 - Detailed Decommissioning Cost Estimate	6.3.13(b)
A-13.3	Exhibit A-13.3 - Proposed Decommissioning Agreement	6.3.13(c)
A-14	Exhibit A-14 - Conditions	6.3.14
A-15	Exhibit A-15 - Other Requested Information	6.3.15
A-16	Exhibit A-16 – Application Checklist	6.3.16

[8] Energy storage facilities only.
[9] Solar and energy storage facilities only.

6.3 REQUIRED EXHIBITS

(a) The required document exhibits are described below. Additional details for each exhibit are provided in Attachments as needed.

6.3.1 Exhibit A-1.1 through A-1.16 – Site Plan

(a) See **Section 7** for detailed guidelines.

6.3.2 Exhibit A-2 – Project Description

(a) The Project Description shall include the following information:

1. Complete name, address, and phone number of the applicant and representative for the application.

2. A description of the facility, including the following:

   i. General description of size, purpose, and location.

   ii. General description of the community where the facility will be located (i.e. land use, population).

   iii. The percentage of land within the township, city, or village dedicated to energy generation at the time of the application. In addition, the percentage of land within the county dedicated to energy generation at the time of the application.

   iv. Expected use.

6.3.3 Exhibit A-3 – Project Schedule

(a) The application shall include expert witness testimony and exhibits presenting the following information:

1. Detailed schedule of planned construction activities including planned construction start date and expected duration of construction.

2. Testimony describing each element within the construction schedule.

6.3.4 Exhibits A-4.1 through A-4.5 – Local Outreach

(a) The following local outreach documentation is to be provided:

1. Exhibit A-4.1 – Chief Elected Official Documentation:

   i. A copy of applicant's offer to meet with the chief elected official in each ALU.

   ii. Documentation of the chief elected official response(s) to the meeting request if provided.

iii. A summary of all meetings, including meeting dates held between the applicant and the chief elected officials.

2. Exhibit A-4.2 – Summary of Community Outreach and Education Efforts

Provide a summary including a copy of all presentation or education materials, number of attendees for any public meetings or meetings with elected officials, meeting length, number of commenters and topics discussed during the meetings.

i. Outreach conducted to locally impacted community groups, environmental organizations, and labor union representatives. Include, at a minimum, the date and time the outreach took place, who participated in the consultation, and summary of findings.

3. Exhibit A-4.3 – Accommodations or changes made to the project design to address the public comments received.

4. Exhibit A-4.4 – Summary of Agency Consultations. Provide a summary for each federal, state and local agency consultation that includes, at a 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. Provide a justification for any consultations the applicant deemed not necessary.

i. Federal agencies – where applicable.

ii. Michigan Department of Natural Resources.

iii. State Historic Preservation Office.

iv. Michigan Department of Environment, Great Lakes, and Energy.

v. Michigan Department of Agriculture and Rural Development.

vi. County Drain Commission.

vii. County Road Agency.

viii. Owners of major facilities for electric, gas, or telecommunications lines.

ix. Michigan Department of Transportation – Aeronautics Commission (if applicable).

5. **Exhibit A-4.5 – Summary of Tribal Engagement**

   i. A summary of tribal engagement, including at a minimum, the communication and outreach conducted with each Tribe, date and time, who participated, and a summary of tribal input and outcomes if applicable.

6.3.5 Exhibit A-5 – NFPA Compliance (Facilities with Energy Storage Only)

(a) Provide documentation that the energy **storage** facility complies with the version of National Fire Protection Association (NFPA) 855 "Standard for the Installation of Stationary Energy Storage Systems in effect on November 29, 2024 or as adopted by the Commission.

6.3.6 Exhibits A-6.1 through A-6.4 – Environmental Compliance

(a) **Exhibits A-6.1 through A-6.4** are designed to demonstrate compliance with applicable state and federal environmental laws. Below is a list of the sub exhibits.

1. **Exhibit A-6.1: Soil and Economic Survey Report**.

2. **Exhibit A-6.2: Environmental Compliance Report**. This report describes 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).

   i. Provide a description of the expected direct impacts of the proposed energy facility on the environment and natural resources and a plan describing how these impacts are proposed to be addressed and/or mitigated.

   ii. 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.

3. **Exhibit A-6.3 Permit List and Status.**

   i. Provide a list of all permits necessary prior to construction with the information identified below:

      - Subject.
      - Responsible Agency.
      - Date or Proposed Date Application Submitted.
      - Date Permit Issued or Expected to be Issued.

ii. Include any permits received prior to filing an application in this exhibit.

4. **Exhibit A-6.4 Stormwater Mitigation Plan.**

i. 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.

ii. 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.

6.3.7 Exhibit A-7 – Signal Mitigation Plan

i. If the facility is reasonably expected to have an impact on television signals, microwave signals, agricultural global position systems, military defense radar, radio reception, or weather and doppler radio, provide a plan to minimize and mitigate that impact.

ii. Wind turbine facilities should provide evidence of prior consultation with nearby communication tower operators, including those of the United States Defense Department.

6.3.8 Exhibits A-8.1 through A-8.5 – Public Benefits

(a) Provide a description of the expected public benefits of the proposed energy facility, including, but not limited to, the list below. Explain how the public benefits of the proposed energy facility justify its construction.

1. **Exhibit A-8.1** - Expected tax revenue paid by the energy facility to local taxing districts.

2. **Exhibit A-8.2** - Payments to owners of participating property.

   These may be filed confidentially if provided to Staff pursuant to a confidentiality agreement that will be superseded by a protective order, once one is entered.

3. **Exhibit A-8.3** - Provide signed copies of host community agreements (which includes a payment provision of $2,000 per MW megawatt of nameplate capacity to the ALU upon commencement of operation) and/or community benefits agreements (which includes payment provisions as outlined in 6.2.10(a)(3)(ii) of this guidance).

i. Host community agreements or community benefits agreements are required for each ALU, according to the nameplate capacity located within the ALU.

- If host community agreements are not signed after good-faith negotiations with an ALU, community benefit agreements may be entered into with one or more community-based organizations providing benefits within or serving the residents of each ALU without a signed host community agreement.

- In the event that agreements were proposed and were not signed, those may be provided in lieu of signed agreements with an explanation of why the proposed agreements have not yet been executed.

ii. Community benefits agreements with community-based organizations within, or that serve residents of, the ALU, must include provisions for payments that are equal to, or greater than, what would have paid pursuant to a host community agreement. The topics and specific terms of the agreements may vary and may include, but are not limited to, any of the following:

- Workforce development, job quality, and job access provisions that include, but are not limited to, any of the following:

  - Terms of employment, such as wages and benefits, employment status, workplace health and safety, scheduling, and career advancement opportunities.

  - Worker recruitment, screening, and hiring strategies and practices, targeted hiring planning and execution, investment in workforce training and education, and worker input and representation in decision making affecting employment and training.

- Funding for or providing specific environmental benefits.

- Funding for or providing specific community improvements or amenities, such as park and playground equipment, urban greening, enhanced safety crossings, paving roads, and bike paths.

- Annual contributions to a nonprofit or community-based organization that awards grants.

4. **Exhibit A-8.4** – **Local Job Creation.** Provide a project labor agreement or collective bargaining agreement if applicable.

5. **Exhibit A-8.5 – Energy Needs Contributions.** When applicable, contributions to meeting Michigan's identified energy, capacity, reliability, or resource adequacy needs such as approved Integrated Resource Plans and Renewable Energy Plans.

6.3.9 Exhibit A-9 – Farmland Protection

(a) Provide an explanation for how the proposed facility will not unreasonably diminish farmland.

(b) Provide the information below at both the local (township/city/village) and the county level using publicly available data, such as https://croplandcros.scinet.usda.gov/, as follows:

1. Type of farmland being utilized by the project (i.e. Standard, Prime, Specialty Crops).
2. Total acreage of farmland utilized by the project.
3. Farmland utilized by the project as a percentage of farmland in the township and county.
4. Current percentage of land within the township and county considered farmland, differentiated by type.
5. Total acreage of farmland within the township and the county, differentiated by type.

6.3.10 Exhibit A-10 – Public Health and Safety

Public health and safety impacts of the project are considered acceptable if the design criteria for the proposed facility are met. The following sections outline the applicable standards required for each type of proposed facility.

(a) **Solar Facility** – Describe how the proposed facility will meet the following standards:

1. Setbacks

   i. Occupied community buildings and dwellings on non-participating properties – 300 feet from nearest point on the outer wall.

   ii. Public road right of way – 50 feet measured from the nearest edge of a public road right-of-way.

   iii. Non-participating parties – 50 feet measured from the nearest shared property line.

2. Fencing – National Electric Code, most recent version.

3. Maximum height – Solar array may not exceed 25 feet above ground at full tilt.

4. Sound - Must not generate >55 decibel (dB); (average hourly) at nearest wall of nonparticipating property.

(b) **Wind Facility** – Describe how the facility will meet the following standards:

1. Setbacks

   i. 2.1 x maximum blade height to nearest point on the outside wall of the structure.

   ii. Residences and other nonparticipating parties – 1.1 x maximum blade tip height to nearest point on the outside wall of the structure.

   iii. Nonparticipating property lines – 1.1 x maximum blade tip height to nearest point on the outside wall of the structure.

   iv. Public right-of-way - 1.1 x maximum blade tip height to center line of the public road right-of-way.

2. Shadow Flicker – Occupied buildings or nonparticipating residences experience <30 hr/yr shadow flicker.

3. Maximum height – Wind tower blade tips may not exceed height allowed under a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR Part 77.

4. Sound - Must not generate >55 decibel (dB); (average hourly) at nearest wall of nonparticipating property.

5. Radar Interference – “any standard” concerning radar interference.

(c) **Energy Storage Facility** – Describe how the facility will meet the following standards:

1. Setbacks

   i. Occupied community buildings and dwellings on nonparticipating properties – 300 feet from nearest point on the outer wall.

   ii. Public road right of way – 50 feet measured from the nearest edge of a public road right-of-way.

   iii. Nonparticipating parties – 50 feet measured from the nearest shared property line.

2. Fire Protection – Facility complies with the latest version of NFPA 855 “Standard for the Installation of Station Energy Storage Systems.”

3. Sound – Facility does not generate >55 decibel (dB; (average hourly) at nearest wall of nonparticipating property.

6.3.11 Exhibit A-11 – Dark Skies (Solar and/or Storage Facilities Only)

Provide plans to comply with dark sky-friendly lighting solutions for solar or storage facilities and light-mitigation plans for wind facilities as submitted to the Federal Aviation Administration, including exemptions requested for during the construction period.

6.3.12 Exhibit A-12 – Transmission and Interconnection Agreements

(a) Provide the following information related to power transmission and interconnection.

1. Queue number or other information providing the ability to identify the proposed facility within the interconnection queue.

2. Copies of all studies completed by the regional transmission organization including feasibility studies and system impact studies.

   i. If a generator interconnection agreement has been executed, the executed generator interconnection agreement may be submitted in lieu of the studies.

   ii. The generator interconnection agreement and/or studies may be filed subject to a protective order and non-disclosure agreement.

6.3.13 Exhibits A-13.1 through A-13.3 – Decommissioning

Exhibit A-13.1 – Decommissioning Plan. Submit a decommissioning plan that includes the following:

1. An overview of the proposed energy facility including:

   i. A detailed description of the proposed energy facility above ground and overview of the current land use of the site where the proposed energy facility will be located.

   ii. The expected useful life of the proposed energy facility.

   iii. A description of events which would trigger applicant-initiated decommissioning.

   iv. A physical and chemical analysis of the soil which can be used to ensure soil is returned to a useful condition.

v. A list of known hazardous substances at the time of development.

2. A description of the energy facility removal process including:

   i. A proposed decommissioning schedule.

   ii. 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.

   iii. A description of removal methods and site clearance activities.

   iv. 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.

   v. A description of planned materials management methods and transportation plans and an initial plan as to whether components will be sold, landfilled, recycled or other, with the understanding that such plans will be updated periodically.

   vi. A description of resources, conditions, or activities potentially affected by decommissioning and mitigation measures to be employed during the decommissioning process.

3. A description of the site restoration plan that returns the site to a useful condition similar to its pre-construction state. Process milestones and PA 116 restoration requirements should be detailed, including necessary steps to ensure soil is returned to at least as good or better condition.

4. A list of expected necessary permits for demolition or new temporary construction which may be required for component removal and a statement that such permits will be obtained prior to the start date of decommissioning.

5. Details describing the financial assurance:

   i. The type and manner of financial assurance the developer plans to provide (cash is prohibited), subject to the terms of any future Commission approval and Commission-approved decommissioning agreement:

      a. Bond.

      b. Parent company guarantee.

      c. Irrevocable letter of credit.

   ii. Such financial assurance shall be expressly held for the benefit of the Michigan Public Service Commission.

6. The following commitments and assurances shall be included in the decommissioning plan:

    a. A commitment to provide decommissioning plan and financial assurance cost updates on a 5-year basis for the first 20 years of commercial operation and every 3 years thereafter.

    b. An assurance statement from that restoration will be in accordance with agreements with landowners.

    c. A commitment and plan to coordinate with landowners, ALUs, and local governments not exercising zoning authority in which all or part of a proposed energy facility will be located to the extent possible, prior to beginning decommissioning activities.

    d. An assurance that decommissioning plan updates and cost estimates shall be filed in the MPSC docket assigned to the energy facility.

    e. An assurance that the financial assurance shall be updated according to the required periodic decommission plan and cost estimate updates.

    f. Assurance that the applicant will provide annual proof in the MPSC docket assigned to the energy facility that the financial assurance remains sufficient and in effect.

    g. A statement agreeing to provide a decommissioning completion report within 60 days after decommissioning is complete.

Exhibit A-13.2 - Detailed Decommissioning Cost Estimate

1. Provide a decommissioning cost estimate for restoration of participating properties to useful condition similar to that which existed before construction, including removal of above-surface facilities and infrastructure that have no ongoing purpose. The estimate must include the following:

    i. Detailed cost estimates for removal of energy facility equipment and infrastructure, land restoration and reclamation, and liability insurance requirements calculated by a third party with expertise in decommissioning to restore to useful condition similar to before the energy facility.

    ii. An estimate of salvage value for energy facility equipment and infrastructure calculated by a third party with expertise in decommissioning.

iii. An estimate of the cost to hire a decommissioning consultant to manage the decommissioning process in the event of owner abandonment or bankruptcy.

Exhibit A-13.3 - Proposed Decommissioning Agreement

1. Submit a Decommissioning Agreement between the applicant and each Business Structure and State of Organization. A copy of the proposed agreement is provided in **Attachment F** and a word file is available here. Any changes to the sample agreement shall be redlined.

6.3.14 Exhibits A-14 – Conditions

(a) Submit a completed Exhibit N regarding the proposed minimum conditions in **Attachment G.**

1. 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.

2. For each condition listed, consider how the project meets, plans to meet, or should not be required to meet, that condition. Either reference where in the application that condition is addressed or provide a response – either in the table or as an attachment to the table (i.e., Exhibit O-1).

6.3.15 Exhibit A-15 – Other Requested Information

(a) Provide other information identified during a pre-application meeting or requested by the Commission that is not otherwise included in the preceding exhibits.

6.3.16 Exhibit A-16 – Application Checklist

The checklist is available on the MPSC Renewable Energy and Energy Storage Facility Website. Staff may make non-substantive changes to this document over time to best accommodate the requirements as prescribed in the Application Filing Instructions and Procedures.

6.4 AFFECTED LOCAL UNIT COORDINATION AND GRANT

6.4.1 One-Time Grant to Affected Local Units

(a) When the application is filed, the applicant must make a one-time grant[10] to ***each*** ALU in which the project is located unless at least one of the following is true:

1. The ALU notified the applicant that it had a CREO, and the application was subsequently not reviewed promptly by the ALU (by the 120-day deadline or other deadline as agreed upon).

2. The ALU notified the applicant that it had a CREO and subsequently denied the application despite it complying with the statute.

3. The ALU notified the applicant that it had a CREO and later amends the CREO so that it imposes requirements more restrictive than 226(8).

(b) If one ALU in the project area meets one of the criteria above, only that ALU in the project area is ineligible for the grant. All other ALUs in the project area remain eligible.

The Commission has established the one-time grant of $150,000, whereby each ALU receives no more than $75,000. The applicant shall split the one-time grant amount equally among all ALUs, and the one-time grant to each ALU should be delivered with a copy of the application within 24 hours of being filed pursuant to PA 233.

Each ALU shall deposit the grant in a local intervenor compensation fund for use in covering costs associated with the ALU's participation in the contested case proceeding on the application for a certificate. ALUs may pool one-time grant funds allocated for the purposes of participating in the contested case proceeding.

Within 15 days following the pre-hearing, one-time grants to ALUs that have not intervened in the case shall be refunded to the applicant. ALUs that have participated as intervenors in the case are directed to file an official exhibit in the case prior to the conclusion of cross examination or the close of the record containing paid invoices for legal services for participation in the case and an estimate for funds to be spent on legal services for briefing and exceptions. Remaining one-time grant funds not utilized for participation in the case shall be refunded to the applicant within 30 days following the

[10] Grants are intended to cover the cost of participation in the contested case proceeding for ALUs. Individual landowners seeking to participate in proceedings will continue to follow established processes for intervention, subject to MCL 460.1226(3), and public comment but are not eligible recipients for grant funding.

date on which answers to petitions for rehearing on the Commission's final order are due, when applicable.

7. EXHIBITS A-1.1 THROUGH A1.16 – SITE PLAN

Site plans should be prepared using the latest or most recent edition USGS maps (1:24,000 topographic edition) and GIS mapping to the extent available. All items provided must be clear and legible, which could entail providing some of the requested items on separate layers, separate maps, or by showing some areas on another scale.

7.1 EXHIBIT A-1.1 – PLANNED FACILITIES

(a) Site Plans must, at a minimum, depict the following information:

1. The proposed location of the facility and potential right-of-way extents, including proposed electric collection and transmission lines and interconnections, all fenced in or secured areas, as well as ancillary features located on the facility site such as roads, railroads, switchyards, energy generation, storage or regulation facilities, substations, and similar facilities.

2. The proposed location of any off-site utility interconnections that are available to the applicant at the time of application, including all electric transmission lines, communications lines, stormwater drainage lines, county and intercounty drains, and appurtenances thereto, to be installed connecting to and servicing the site of the facility.

3. The proposed limits of clearing and disturbance for construction of all facility components and ancillary features, including laydown yards and temporary staging or storage areas.

4. Major institutions, parks, and recreational areas within 1000 feet of the site.

5. Lakes, reservoirs, streams, canals, rivers, wetlands, and other waterbodies within 1000 feet of the site.

6. Legal boundaries of cities, villages, townships, and counties within 1000 feet of the site.

7. Occupied structures within 1000 feet of the site.

8. The location of inverters and other noise-emitting facilities showing the distance to occupied structures, property lines, and public rights-of-way.

9. The area of the proposed site or right-of-way for the facility, and the identification of participating properties and adjacent properties.

10. The location of any deeded easement known to date that exists within the footprint of the facility.

    i. The existing site plan elements, including without limitation, project boundary(ies), parcel boundaries, public roads, railroads, public right-of-way, existing public utilities, and easement locations shall be shown as approximate locations based on readily available desktop/GIS/publicly available spatial data within the footprint of the facility.

(b) An aerial photograph or a map using satellite imagery with depictions of planned facilities, fences, roads, occupied buildings, and planned screening, landscaping, and vegetative cover.

(c) A dimensioned drawing or map with dimensions added showing setbacks from the project boundary and fences to all structures on participating properties, road rights-of-way, waterways, wetlands, occupied buildings and structures on non-participating properties, and property lines of non-participating properties.

(d) A description of the maximum height of solar panels, wind turbines, storage facilities, and associated electrical equipment in relation to existing overhead communication and electric transmission lines.

7.2 EXHIBIT A-1.2 – AREA LAND USE INFORMATION

(a) Exhibit A-2 maps must show, at a minimum, the following information within the proposed facility (including all components and ancillary feature(s)) and within 1,000 feet of the proposed facility (including all components and ancillary feature(s)). The applicant should ensure that all items provided are clear and legible which could entail providing some of the requested items on separate layers, separate portable document format (pdf) maps, or by showing some areas on another scale.

1. Municipal boundaries and taxing jurisdictions, at a scale sufficient to determine and demonstrate relation of facilities to those geographic and political features.

2. Proposed land uses within the facility and surrounding area including, but not limited to, the identification of land being utilized for agriculture including the cultivation of specialty crops according to publicly available data.

3. Farmland, including, but not limited to, prime farmland within the facility and surrounding area within 1000 feet of the perimeter.

4. Existing overhead and underground major facilities for electric, gas, and telecommunications transmission.

5. A map of all properties upon which any component of a facility or ancillary feature would be located must show the current land use, tax parcel number and owner of record of each property, and any publicly known proposed land use plans for any of these properties. Also, identify any parcels within the project boundaries participating in farmland development rights agreements under Michigan's Farmland and Open Space Preservation Program (PA 116).

    i. For wind facilities, all properties within 2,000 feet of such facilities must be shown.

6. Existing local zoning districts.

7. Designated coastal areas, inland waterways, groundwater management zones, designated agricultural districts, flood-prone areas, and coastal erosion hazard areas.

8. Recreational and other land uses that might be affected by the sight or sound of the construction or operation of the facility, interconnections and related facilities. Identify any wild, scenic, and recreational river corridors, open spaces, known archaeological, geologic, historical, or scenic areas, parks, designated wilderness, forest lands, scenic vistas, conservation easement lands, federal or state designated scenic byways, nature preserves, designated trails, public-access fishing areas, major communication and utility uses and infrastructure, and institutional, community, and municipal uses and facilities.

9. Depict the proposed facilities, adjacent properties, all structures within participating and adjacent properties, property lines, and the projected sound isolines along with the modeled sound isolines including the statutory limit and any limits that have been adopted in administrative rules by the MPSC (not applicable at this time).

10. Depict the area that will be impacted by shadow flicker for wind facilities, including isolines indicating areas expected to experience 30 hours or more per year of shadow flicker and locations of occupied structures.

7.3 EXHIBIT A-1.3 – EXPLANATORY INFORMATION

(a) Written explanations of the elements and features shown on all provided maps as well as other planned site/facility information including a description of the project area and the portion of the community where the project will be sited including socioeconomic and demographic profiles and major industries in the area. Examples of relevant project area information include geography, topography, cities, villages, townships, counties, major industries, and landmarks.

1. Provide justification for how the proposed project location, layout, construction methods, etc. minimize the following:

    i. Environmental and Natural Resource impacts

    ii. Noise

    iii. Visual impacts

    iv. Impacts to traffic

    v. Impacts to solid waste disposal capacity

    vi. Impacts to county and intercounty drains and preliminary plans to minimize, mitigate, and repair drainage issues; and

    vii. Other impacts to non-participating property owners during construction and operation.

2. Provide the number of acres of the proposed site for the facility.

3. Provide written descriptions explaining the relation of the location of the facility site, and all ancillary features not located on the facility site, to the ALUs of government.

4. Provide a qualitative assessment of the compatibility of the facility, including any off-site staging and storage areas, with existing, proposed and allowed land uses located within a 1,000-foot perimeter of the facility site. The assessment shall identify the nearby land uses of and shall address the land use impacts of the facility on residential areas, schools, civic facilities, recreational facilities, and commercial areas. The assessment and evaluation shall demonstrate that conflicts from facility-generated noise, traffic, and visual impacts with current and planned uses have been minimized to the extent practicable.

5. Provide a description of the planned screening, landscaping, and vegetative cover. For solar developments, describe the plan to establish and maintain pollinator habitat and vegetative ground cover for the life of the proposed facility. This information is not required if the proposed facility is located entirely on brownfield land.

    i. Describe the plan to meet or exceed pollinator standards throughout the lifetime of the proposed facility as established by the “Michigan Pollinator Habitat Planning Scorecard for Solar Sites” developed by the Michigan State University Department of Entomology in effect on February 27, 2024, or any applicable successor standards approved by the Commission.

ii. Explain how the seed mix used to establish pollinator plantings shall not include invasive species as identified by the Midwest Invasive Species Information Network, led by researchers at the Michigan State University Department of Entomology and supporting regional partners.

6. Provide a written description of how planned fencing complies with the version of the National Electric Code in effect on November 29, 2024, or as approved by the Commission.

7.4 EXHIBIT A-1.4 – CONSTRUCTION INFORMATION

(a) Describe the project's proposed construction and installation methods including:

1. Soil surveying and testing plans, pursuant to NREPA.
2. Grading and excavation.
3. Construction of temporary and permanent access roads, staging areas, and laydown areas and trenches.
4. Stringing of cable and/or laying of pipe.
5. Installation of electric transmission line poles and structures, including foundations.
6. Depth of underground infrastructure.
7. Post-construction restoration.
8. Maps showing the following:

i. The planned routes (may be preliminary) for cranes and other heavy equipment.

ii. The location of any existing deeded easement granted to any entity within the footprint of the facility.

iii. The location of known existing and proposed county and intercounty drains, drain easements, and underground drainage tile including data provided by the county drain commission or the property owner as applicable and to the extent available.

7.5 EXHIBIT A-1.5 – ALTERNATIVES

(a) Provide a map and description of each alternative site location, proposed site layout, or other alternatives that are or were considered, including rationale for why alternative locations were not selected for development.

If the proposed site of the energy facility is undeveloped land, the applicant must provide a description of feasible alternative developed locations, including, but not limited to, vacant industrial property and brownfields, and an explanation of why they were not chosen for the project site.

7.6 EXHIBIT A-1.6 – CHANGES

(a) Provide a map and description of any known potential modifications or variations in the proposed site plan that are being considered at the time of filing and that will be finalized prior to construction.

(b) Minor changes are not required to be submitted. 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; however, a minor change does ***not*** include any of the following:

1. A change that would expand the footprint or perimeter of the site plan.
2. A change in planned technologies (such as the addition of an energy storage facility to an existing site or other technological changes increasing noise or impacting permit requirements).
3. Reduced setback distances from any part of the planned facilities to occupied structures, non-participating property lines, or rights-of-way if the new setbacks violate any setback requirements in PA 233.
4. Any change that affects water detention or retention or other stormwater runoff.
5. An increase in the height of the tallest equipment or structures.
6. Repowering.
7. Any increase of noise impacts to non-participating structures above the 55 dB average hourly limit.

7.7 EXHIBIT A-1.7 – SOUND REPORT AND MONITORING PROTOCOL

(a) Exhibit A-7 Submit a report detailing the sound modeling results along with proposed preconstruction (optional) and postconstruction sound monitoring plans

to be completed upon receipt of a siting certificate from the Commission as well as mitigation plans to ensure that sound emitted from the facilities will remain below the statutory limit throughout the operational life of the facilities. An overview of the sound report requirements is provided below. See **Attachment D**, for further detail for Sound Report requirements.

1. Sound modeling must be conducted following the requirements of International Organization for Standardization (ISO) 9613-2 (2024), “Engineering method for the prediction of sound pressure levels outdoors.”

2. The purpose of the Sound Report is to provide the Commission with information necessary to assess if the facility meets the noise limits defined in MCL 460. 1226.

3. All sound studies shall be completed by or under the direction of a qualified noise control engineer whose qualifications are documented in the report.

4. The sound monitoring should generally follow the requirements of the American National Standards Institute (ANSI) S12.18 and ANSI S12.9 Part 3, where applicable.

5. Reporting shall include, but is not limited to, the following:

    i. Facility Description

    ii. Maps and descriptions of sources and monitoring locations, including the distance from each to the nearest facility equipment.

    iii. Sound Modeling Results

    iv. Discussion including an assessment of the noise impacts and ability to meet MCL 460.1226.

6. Submit a Pre-construction Sound Monitoring Protocol (optional) in accordance with the guidance in **Attachment D**.

7. Submit a Post-construction Sound Monitoring Protocol in accordance with the guidance provided in **Attachment D**.

7.8 EXHIBIT A-1.8 – SHADOW FLICKER REPORT (WIND FACILITIES ONLY)

(a) Provide a report detailing the flicker modeling results for wind facilities along with mitigation plans to ensure that flicker will remain below the statutory limit throughout the operational life of the facilities.

1. The report must be prepared by a qualified third party using the latest or most recent current modeling software available establishing that no Occupied

Residence will experience more than 30 hours per year, of shadow flicker at the nearest external wall based on real world or adjusted case assessment modeling.

2. The report must show the locations and estimated amount of shadow flicker to be experienced at all Occupied Residences as a result of the individual turbines in the project.

7.9 EXHIBIT A-1.9 – EMERGENCY RESPONSE PLAN

(a) The Emergency Response Plan (ERP) shall include:

1. Evidence of consultation or a good-faith effort to consult with local first responders and county emergency managers to ensure that the ERP is in alignment with acceptable operating procedures, capabilities, resources, site access, etc.

2. An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate Fire Response Plan (FRP)).

3. Emergency response measures by contingency.

4. Evacuation control measures by contingency.

5. Community notification procedures by contingency.

6. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.

7. A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every 3 years.

8. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.

9. Other information the applicant finds relevant.

(b) Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the ERP. Additional consultation with local fire departments, first responders, and county emergency managers is required for amended plans.

7.10 EXHIBIT A-1.10 – FIRE RESPONSE PLAN (FRP)

(a) The FRP shall include the following:

1. Evidence of consultation or a good-faith effort to consult with local fire department representatives to ensure that the FRP is in alignment with acceptable operating procedures, capabilities, resources, etc. If consultation with local fire department representatives is not possible, provide evidence of consultation or a good-faith effort to consult with the State Fire Marshal or other local emergency manager.

2. A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies.

3. A description of all contingency plans to be implemented in response to the occurrence of a fire emergency.

4. For energy storage projects, a commitment to offer to conduct, or provide funding to conduct, site-specific training drills with emergency responders before commencing operation, and at least once per year while the facility is in operation. Training should familiarize local fire departments with the project, hazards, procedures, and current best practices.

5. For wind and solar projects, a commitment to conduct, or provide funding to conduct, site-specific training drills with emergency responders before commencing operation, and upon request while the facility is in operation. Training should familiarize local fire departments with the project, hazards, procedures, and current best practices.

6. A commitment to review and update the FRP with fire departments, first responders, and county emergency managers at least once every 3 years.

7. An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity. The analysis should include identification of any specific equipment or training deficiencies in local emergency response capacity and recommendations for measures to mitigate deficiencies.

8. Other information the applicants find relevant.

(b) Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the FRP. Additional consultation with local fire departments, first responders, and county emergency managers is required for amended plans.

7.11 EXHIBIT A-1.11 – COMMISSIONING PLAN (FACILITIES WITH STORAGE ONLY)

(a) For energy storage projects, provide a Commissioning Plan in compliance with NFPA 855 (4.2.4 & 6.1.3.2).

7.12 EXHIBIT A-1.12 – EMERGENCY OPERATIONS PLAN (FACILITIES WITH STORAGE ONLY)

(a) For energy storage projects, provide an Emergency Operations Plan in compliance with NFPA 855 (4.3.2.1.4).

7.13 EXHIBIT A-1.13 – HAZARD MITIGATION ANALYSIS (FACILITIES WITH STORAGE ONLY)

(a) For energy storage projects provide a Hazard Mitigation Analysis in compliance with NFPA 855 (4.4).

7.14 EXHIBIT A-1.14 – UNANTICIPATED DISCOVERIES PLAN

(a) Submit an Unanticipated Discoveries Plan (UDP) that addresses 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. The UDP must include:

1. A set of procedures to be followed if cultural resources are discovered. Examples of cultural materials include, but are not limited to, the following:

    i. An accumulation of shell, burned rocks, or other food-related materials

    ii. Bones or small pieces of bone

    iii. An area of charcoal or very dark stained soil with artifacts

    iv. Stone tools or waste flakes (i.e., an arrowhead, or stone chips)

    v. Clusters of tin cans or bottles

    vi. Logging or agricultural equipment that appears to be older than 50 years

    vii. Buried railroad tracks, decking, or other industrial materials

3. A set of procedures to be followed if human remains are discovered.

4. A contact list that includes the following:

    i. Contact for the State Historic Preservation Office

    ii. Contacts for Tribal Historic Preservation Offices of Michigan

iii. Local, project-specific, emergency contacts (i.e., County Sheriff, County Medical Examiner.)

7.15 EXHIBIT A-1.15 – PARTICIPATING PARCEL LIST

(a) Provide a list of all parcels that are participating or adjacent to the proposed facilities, including land-owner information for each parcel. Landowner information may be redacted and filed confidentially pursuant to protective order at the discretion of the applicant if the land-owner information is not available publicly.

7.16 EXHIBIT A-1.16 – COMPLAINT RESOLUTION PROCESS

(a) Provide a complaint resolution process for the site. The complaint process should include:

1. The name of a designated applicant representative provided with the authority to resolve local complaints.
2. A dedicated phone number for complaints.
3. An email address for complaints.
4. Website information instructing the public on the complaint resolution process.
5. Procedures for regular reporting of complaints received and how each complaint was resolved to be filed on a periodic basis in the docket.

8. POST CERTIFICATE REQUIREMENTS AND INFORMATION

8.1 COMPLETION REPORT (REQUIRED)

(a) Before commencing commercial operations, file a completion report in the case docket certifying compliance with the statute as well as any conditions associated with an approved certificate. At a minimum, the completion report should include:

1. Finalized site plans, finalized schematics, and dimensioned drawings.
2. Descriptions demonstrating 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 conditions attached to each permit.

4. Submit a Postconstruction Sound Monitoring Report as part of the required Completion Report. The report must include the information set forth in **Attachment D**, **Section 2.4** of these instructions.

8.2 AS-BUILT SURVEY

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

8.3 DECOMMISSIONING AND FINANCIAL ASSURANCE

(a) Updates to the Decommissioning Plan and/or Financial Assurance must be filed in the MPSC docket for the project.

(b) Proof that the financial assurance remains sufficient and in effect must be filed in the MPSC docket for the project annually.

8.3.1 Decommissioning

(a) Decommissioning plans shall be updated to incorporate any improvements in the decommission process or necessary changes, including, but not limited to, changes to address any newly identified hazardous substances that would increase cost.

(b) Notify MPSC within 60 days of completing decommissioning activities and submit a decommissioning report in the MPSC docket assigned to the project that includes a summary of decommissioning activities and a description of any mitigation measures used during decommissioning.

8.3.2 Financial Assurance

(a) Submit initial proof of financial assurance to the MPSC docket assigned to the project prior to commencing construction. Financial assurance may be in the form of a:

1. Bond.
2. Parent company guarantee.
3. Irrevocable letter of credit.

(b) Applicants with facilities which include PA 116 farmland may, in consultation with the Michigan Department of Agriculture and Rural Development (MDARD), provide

financial assurance pursuant to PA 233 which satisfies the requirements of both PA 116 and PA 233.

(c) When decommissioning plans are updated, the decommissioning cost estimate must be updated by a third party with expertise in decommissioning based on the updated decommission plan.

(d) Submit proof of financial assurance to the MPSC docket assigned to the project annually.

1. Changes to the amount of the financial assurance is only required when the costs are revised from decommissioning plan updates.

ATTACHMENT A

LIST OF ACRONYMS

AC	alternating current
ACSM	American Congress on Surveying and Mapping
ALJ	Administrative Law Judge
ALTA	American Land Title Association
ALU	affected local unit
ANSI	American National Standards Institute
COD	commercial operation date
CREO	Compatible Renewable Energy Ordinance
dB	decibel
E-Docket	Electronic Docket Filings System
ERP	Emergency Response Plan
FRP	Fire Response Plan
IEC	International Electrotechnical Commission
IOU	investor-owned utility
ISO	International Organization for Standardization
MCL	Michigan Compiled Laws
MDARD	Michigan Department of Agriculture and Rural Development
MEPA	Michigan Environmental Protection Act
MNIA	Military Needs and Interest Assessment
MPSC	Michigan Public Service Commission
MZEA	Michigan Zoning Enabling Act
MW	megawatts
NFPA	National Fire Protection Association
NREPA	Natural Resources and Environmental Protection Act
PA	Public Act
pdf	portable document format
PFD	Proposal for Decision

UDP	Unanticipated Discoveries Plan
USGS	United States Geological Survey

ATTACHMENT B

DEFINITIONS

"**Affected local unit”** means a unit of local government exercising zoning authority in which all or part of a proposed energy facility will be located.

"**Aircraft detection lighting system**" means a sensor-based system designed to detect aircraft as they approach a wind energy facility and that automatically activates obstruction lights until they are no longer needed.

"**Applicant**" means an applicant for a certificate.

"**Certificate**" means a certificate issued for an energy facility under section 226(5) of PA 233 of 2023.

"**Community-based organization**" means a workforce development and training organization, labor union, local governmental entity, environmental advocacy organization, or an organization that represents the interests of underserved communities.

"**Compatible renewable energy ordinance**" means an ordinance that provides for the development of energy facilities within the local unit of government, the requirements of which are no more restrictive than the provisions included in section 226(8). A CREO under Act 233 may only contain the setback, fencing, height, sound, and other applicable requirements expressly outlined in Section 226(8), and may not contain additional requirements beyond those specifically identified in that section. A local unit of government is considered not to have a CREO if it has a moratorium on the development of energy facilities in effect within its jurisdiction.

"**Construction**" means any substantial action taken constituting the placement, erection, expansion, or repowering of an energy facility.

“Chief Elected Official” means a local government official including mayors, village presidents, township supervisors, and board chairs

"**Dark sky-friendly lighting technology**" means a light fixture that is designed to minimize the amount of light that escapes upward into the sky.

“**Electric Provider**” means a corporation, person, agency, authority, or other legal entity or instrumentality aligned with distribution facilities for delivery of electric energy for use

primarily by the public. Included are investor-owned electric utilities, municipal and State utilities, Federal electric utilities, and rural electric cooperatives.

"**Energy facility**" means an energy storage facility, solar energy facility, or wind energy facility. An energy facility may be located on more than 1 parcel of property, including noncontiguous parcels, but shares a single point of interconnection to the grid.

"**Energy storage facility**" means a system that absorbs, stores, and discharges electricity. Energy storage facility does not include either of the following:

(i) Fossil fuel storage.

(ii) Power-to-gas storage that directly uses fossil fuel inputs.

"**Independent power producer**", or "IPP", means a person that is not an electric provider but owns or operates facilities to generate electric power for sale to electric providers, this state, or local units of government.

"**Light intensity dimming solution technology**" means obstruction lighting that provides a means of tailoring the intensity level of lights according to surrounding visibility.

"**Light-mitigating technology system**" means an aircraft detection lighting system, a light intensity dimming solution technology, or a comparable solution that reduces the impact of nighttime lighting while maintaining night conspicuity sufficient to assist aircraft in identifying and avoiding collision with the wind energy facilities.

"**Local unit of government**" or "**local unit**" means a county, township, city, or village.

"**Maximum blade tip height**" means the nominal hub height plus the nominal blade length of a wind turbine, as listed in the wind turbine specifications provided by the wind turbine manufacturer. If not listed in the wind turbine specifications, maximum blade tip height means the actual hub height plus the actual blade length.

“MPSC” or **“Commission”** means the Michigan Public Service Commission, the state regulatory body in Michigan charged with serving the public by ensuring safe, reliable, accessible energy and telecommunications at reasonable rates.

“MPSC Staff” or **“Staff”** means the professional, independent, subject matter experts employed by the MPSC who are granted intervention by right in contested cases before the Commission.

"**Nameplate capacity**" means the designed full-load sustained generating output of an energy facility. Nameplate capacity shall be determined by reference to the sustained

output of an energy facility even if components of the energy facility are located on different parcels, whether contiguous or noncontiguous.

"**Nonparticipating property**" means a property that is adjacent to an energy facility and that is not a participating property.

"**Occupied community building**" means a school, place of worship, day-care facility, public library, community center, or other similar building that the applicant knows or reasonably should know is used on a regular basis as a gathering place for community members.

"**Participating property**" means real property that either is owned by an applicant or that is the subject of an agreement that provides for the payment by an applicant to a landowner of monetary compensation related to an energy facility regardless of whether any part of that energy facility is constructed on the property.

"**Person**" means an individual, governmental entity authorized by this state, political subdivision of this state, business, proprietorship, firm, partnership, limited partnership, limited liability partnership, co-partnership, joint venture, syndicate, business trust, labor organization, company, corporation, association, subchapter S corporation, limited liability company, committee, receiver, estate, trust, or any other legal entity or combination or group of persons acting jointly as a unit.

“**Prime farmland**” is defined in the same manner as is done by the U.S. Department of Agriculture’s Natural Resource Conservation Service and is shown in the online database by the same entity (see 7 CFR 657.5). Prime farmland means land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest and, or other land, but not urban built-up land or water). It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding. Examples of soils that qualify as prime farmland are Palouse silt loam, 0 to 7 percent slopes; Brookston silty clay loam, drained; and Tama silty clay loam, 0 to 5 percent slopes.

"**Project labor agreement**" means a prehire collective bargaining agreement with 1 or more labor organizations that establishes the terms and conditions of employment for a specific construction project and does all of 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.

(vi) Complies with all state and federal laws, rules, and regulations.

"**Repowering**", with respect to an energy facility, means replacement of all or substantially all of the energy facility for the purpose of extending its life beyond its original contract. Repowering does not include repairs or replacements related to the ongoing operations that do not increase the capacity or energy output of the energy facility.

“**Specialty Crops**” means land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, fruit, and vegetables. (Definition is adopted from the USDA definition of “Unique Farmland.”)

"**Solar energy facility**" means a system that captures and converts solar energy into electricity, for the purpose of sale or for use in locations other than solely the solar energy facility property. Solar energy facility includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: photovoltaic solar panels; solar inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage facilities; overhead and underground

control; communications and radio relay systems and telecommunications equipment; utility lines and installations; generation tie lines; solar monitoring stations; and accessory equipment and structures.

"**Wind energy facility**" means a system that captures and converts wind into electricity, for the purpose of sale or for use in locations other than solely the wind energy facility property. Wind energy facility includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: wind towers; wind turbines; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage facilities; overhead and underground control; communications and radio relay systems and telecommunications equipment; monitoring and recording equipment and facilities; erosion control facilities; utility lines and installations; generation tie lines; ancillary buildings; wind monitoring stations; and accessory equipment and structures.

ATTACHMENT C

PRE-APPLICATION REQUIREMENTS AND CONSULTATION PROCEDURES

C-1 MEETING WITH CHIEF ELECTED OFFICIAL

The applicant must offer to meet with each affected local unit's (ALU) chief elected official[11] to establish if the ALU has a compatible renewable energy ordinance (CREO). If the ALU has a CREO, then applicants must follow the ALU siting process in each ALU. CREOs are described in the following section of this attachment.

The applicant's offer to meet shall be delivered by email and by certified U.S. mail at least 60 days before the scheduled public meeting in each affected local unit (ALU). ALUs include the city, township, village, or county, exercising zoning jurisdiction over the project location. Reasonable efforts to obtain email addresses for the CEO should be made by reviewing the website of the affected local unit and if necessary, by contacting the office of the ALU. A local unit of government in a zoned jurisdiction that does not exercise zoning jurisdiction is not considered an ALU.

A copy of the offers to meet with the chief elected officials should be sent to the entire board or other legislative body of the ALU.

The applicant may proceed as if there is not a CREO if the chief elected official has failed to respond to the offer to meet and has not provided notice of a CREO thirty days following receipt of the certified mail.

C-2 COMPATIBLE RENEWABLE ENERGY ORDINANCE NOTIFICATION

CREO means an ordinance that provides for the development of energy facilities within the ALU, the requirements of which are no more restrictive than the provisions included in section 226(8) of PA 233.

A CREO may be an ordinance for a single technology such as wind, solar, or energy storage facilities or it may be an ordinance that addresses multiple technology types. To be considered a CREO, the ordinance must be no more restrictive than PA 233 section 226(8) for the technology type(s) addressed in the ordinance. An ALU is considered not to have a compatible renewable energy ordinance if it has a moratorium on the development of energy facilities in effect within its jurisdiction. If notification from chief

[11] The titles of chief elected officials may vary between jurisdictions. Chief elected officials include mayors, village presidents, township supervisors, and board chairs.

elected official(s) from each ALU to the applicant states that the ALU has a CREO, then applicants must first file for approval with each ALU. CREOs are not required in unzoned areas because there is no ALU exercising zoning jurisdiction in an unzoned area.

When a local ordinance does not meet the definition of CREO, the applicant may still choose to follow the ALU siting process if the ALU process allows the facilities to be sited. If an applicant chooses to follow an ALU's siting process, including a special land use approval process, a siting certificate from the MPSC is not required.

For example, if an applicant wanted to site a hybrid project containing solar and storage facilities in an ALU, the local process should be utilized in any of the following circumstances:

1. The ALU has a single ordinance that is a CREO addressing solar and storage facilities.

2. The ALU has two separate ordinances that are CREOs addressing solar and storage facilities.

If a project is being sited in an area that crosses jurisdictional boundaries and one of the ALUs does not notify the applicant that it has a CREO or after attempts to site the project in one or more ALUs have failed, the applicant may file for a certificate pursuant to PA 233. When a project crosses multiple jurisdictional boundaries and one or more ALUs have CREOs, and one or more ALUs do not have CREOs, or after attempts to site the project in ALUs have failed, the MPSC will review the entire project if an application is filed, including the portions of the project that are in areas with CREOs and areas without CREOs, including unzoned areas, if the facilities do not meet the minimum size thresholds without the inclusion of the unzoned areas. By stipulation of the parties in a contested case, particularly the ALU(s) and the applicant, the ALU's approvals pursuant to an ALU siting process may be considered by the Commission for those portions of the project included in the stipulation.

Resolving disputes between applicants and ALUs regarding CREOs is not within the Commission's jurisdiction. Should an applicant apply for siting approval at the MPSC while it is in dispute with the ALU regarding whether its ordinance is a CREO, the ALU, the Staff, or another intervenor, may file a motion to dismiss or stay, which will be adjudicated by the administrative law judge pursuant to the Commission's rules of practice and procedure. The administrative law judge's ruling could be appealed to the Commission pursuant to the Commission's rules of practice and procedure.

The applicant should retain records of the notification from the chief elected official regarding CREO status for later submission in a contested case.

If an ALU would like to request the Commission to require the developer to obtain a siting certificate for the proposed facilities from the Commission pursuant to PA 233 Section 222(2), the ALU should send its request to the Commission by contacting LARA-MPSC-Edockets@michigan.gov to the attention of the MPSC Executive Secretary and to the Staff at LARA-MPSC-Siting@michigan.gov with a copy of the request provided to the developer.

C-3 REQUIREMENTS FOR PUBLIC NOTICE AND PUBLIC MEETINGS

The applicant must hold a public meeting in each city and township where the proposed facilities are located before filing an application with the Commission except in cities and townships where at least one of the following is true:[12]

- The ALU notified the applicant that it had a CREO, and the application was subsequently not reviewed promptly by the ALU (by the 120-day deadline or other deadline as agreed upon).
- The ALU notified the applicant that it had a CREO and subsequently denied the application despite the proposed project complying with the statute.
- The ALU notified the applicant that it had a CREO and later amends its CREO so that it imposes requirements more restrictive than Section 226(8).

Public meetings must be held in each ALU; however, a public meeting held in a township is considered to be held in each village located within the township. Exceptions due to a lack of appropriate facilities to hold required public meetings within the ALU where the project is located will be considered on a case-by-case basis upon a showing of a good-faith effort to hold the meetings as close to the project as feasible.

Unless otherwise requested by the chief elected official, the public meeting should start between 5:00 pm and 7:30 pm if held on a traditional workday of Monday through Friday.

The public meetings should be recorded or transcribed for later submission as evidence in siting cases filed pursuant to PA 233.

[12] Public meetings as outlined in PA 233 are not required when applicants are working to site facilities with ALUs, the applicant should follow the requirements of the ALU.

C-3.1 PUBLIC NOTICE FOR PUBLIC MEETINGS

The applicant shall provide a notice of the public meeting that includes the date, time, and location of the public meeting; a description and location of the proposed renewable energy and/or energy storage facilities; an internet site where the site plan is accessible to the public, and directions for submitting written comments to the applicant for those unable to attend the public meeting.

The notice of public meeting provided by the applicant shall be published in a newspaper of general circulation in each ALU unit or a comparable digital alternative at least 14 days prior to the public meeting(s). The applicant shall publish notice of the meeting in a newspaper of general circulation in the ALU(s) or in a comparable digital alternative.

The public meeting notice shall be written in plain, nontechnical, and easily understood terms and shall contain a title that includes the name of the application and the words "NOTICE OF INTENT TO CONSTRUCT _____ FACILITY", with the words "WIND ENERGY", "SOLAR ENERGY", or "ENERGY STORAGE", as applicable entered into the blank space.

Additionally, the notice must be submitted to the clerk in each ALU at least 30 days in advance of the public meeting. A copy must be provided to the MPSC by emailing LARA-MPSC-Edockets@michigan.gov to the attention of the MPSC Executive Secretary and LARA-MPSC-Siting@michigan.gov on the same date in which the local clerk/s was provided notice.

The Executive Secretary may provide further direction regarding public notice.

C-4 PRE-APPLICATION MEETING WITH STAFF

Thirty days before filing an application for a certificate, the Applicant shall contact the Staff (Siting-Certificate-Coordinator@michigan.gov) to schedule a pre-application meeting to be held virtually using Microsoft Teams or other videoconferencing software. During the meeting, the applicant will discuss the following:

1. Overview of project.
2. Map of project.
3. Status of project.
4. Labor and employment considerations.
5. Expected application filing date.
6. Questions related to the contested case process.
7. Questions related to filing requirements.

8. Other items of interest.

ALUs that have renewable energy projects or energy storage projects proposed within their boundaries may request meetings with Staff by contacting the Staff (LARA-MPSC-Siting@michigan.gov) to schedule a meeting to be held virtually using Microsoft Teams or other videoconferencing software. Staff will answer questions regarding the contested case process, the filing requirements, and discuss other items of interest to ALU, however, consultations with Staff are not a substitute for the advice of counsel.

C-5 PUBLIC NOTICE OF THE OPPORTUNITY TO COMMENT ON THE APPLICATION

The applicant is required to provide public notice of the opportunity to comment on the application. This notice shall be filed as a public notice in a newspaper of general circulation in each ALU or in a comparable digital alternative. The notice shall be written in plain, nontechnical, and easily understood terms and shall contain a title that includes the name of the applicant and the words "NOTICE OF INTENT TO CONSTRUCT _____ FACILITY," with the words "WIND ENERGY," "SOLAR ENERGY," or "ENERGY STORAGE," as applicable, entered into the blank space.

The applicant shall also send the notice of the opportunity to comment on the application by U.S. mail to postal addressees within one mile of proposed solar or proposed energy storage facilities, and within two miles of proposed wind energy facilities, including to those addressees within those specified boundaries that are not located within the bounds of the ALU and local governments not exercising zoning authority where the facilities will be located.

C-6 TECHNICAL CONFERENCE

The applicant shall work with Staff to hold a technical conference with invitations provided to all intervening parties and local governments not exercising zoning authority. The technical conference may be held virtually and should be scheduled approximately 4 weeks following the pre-hearing.

The purpose of the technical conference is to allow Staff and intervening parties to ask questions and view the site plan in an electronic format where the applicant can zoom in on specific areas. The goal of the technical conference is to reduce the burden associated with multiple rounds of discovery questions and to allow for direct communication between case participants early in the case.

ATTACHMENT D

SOUND REPORT REQUIREMENTS

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D1.0 PRECONSTRUCTION SUBMISSION REQUIREMENTS (Exhibit A-1.7)

All sound studies shall be completed by or under the direction of a qualified noise control engineer. The preferred qualification is Board Certification through the Institute of Noise Control Engineering (INCE). If the preparer is not Board Certified, then qualifications shall be justified and submitted with the application. A professional engineering license alone is not sufficient qualification to prepare the preconstruction or postconstruction noise studies.

The purpose of the preconstruction sound report is to provide the Commission with information necessary to assess whether the facility meets the noise limits defined in MI MCL 460.1226.

D1.1 Sound modeling (Exhibit A-1.7)

D1.1.1 Modeling Parameters

Sound modeling shall be conducted following the requirements of ISO 9613-2 (2024), “Engineering method for the prediction of sound pressure levels outdoors.”

For modeling wind turbine sound, ANSI/ACP 111-1 (2022), “Wind Turbine Sound Modeling,” and Annex D of ISO 9613-2 (2024) provide additional guidance for the calculation of sound pressure levels from wind turbines. Where any ambiguity exists, the parameters in Table 1 must be used.

Table 1
Sound Modeling Parameters

PARAMETER	VALUE
G (Ground factor)	0.0 over water and large areas of hard ground, 0.5 everywhere else
Modeling uncertainty adjustment	Minimum of +2 dB for wind projects, Minimum of +0 dB for all other sources
Receptor/grid height	4.0 m for wind projects, otherwise, • 4.0 m for two- or more-story dwellings (default) • If sound barriers are proposed, the height of the highest window for each dwelling • 1.5 m for property boundaries and one-story dwellings
Source height	For wind turbines, hub height. For all other sources, top of the sound source
Receptors	All dwellings within 1 mile of any facility sound source
Temperature/Humidity	10°C, 70%
Sound power level	See below
Source directivity	For wind turbines, omnidirectional. For all other sources, directionality of sound power may be considered, if known.
C_{met} (meteorological adjustment)	0 (none)
Include all sources within	8,000 m
Dense vegetation	No foliage attenuation allowed to be considered outside of Project-controlled parcels
Tonal prominence	+ 5 dB tonal penalty to source sound power. The tonal penalty can be removed if it can be shown that the facility would not have a tonal prominence at a dwelling when the measured background sound of the lowest hourly L_{90} is added.
Façade pressure doubling[13]	+6 dB to modeled free field outer wall sound pressure level
Other energy facilities	Other energy facilities that have an application submitted prior to this facility, approved, or built, within two miles of the facility must be included in a separate cumulative impact model run.

[13] MCL 460.1226 states that the noise limit is considered "at the nearest outer wall of the nearest dwelling." In practice, this would be measured with a microphone mounted directly on the façade, that is, flush mounted on the vertical reflecting surface of a building. The pressure doubling at the surface with respect to the free-field condition leads to a 6 dB increase in sound level and is referred to as the "6-dB position" in ANSI S12.9 Part 3. Sound modeling conducted using ISO 9613-2 does not include the +6 dB adjustment. Therefore, 6 dB must be added to the sound modeling results to reflect what would be measured at the façade.

D1.1.2 Source Sound Power

The sound power level of equipment shall be based on the following in this order of preference:

1) Data from the manufacturer, such as those based on IEC 61400-11 or IEC TS 61400-14 for wind turbines, or similar standards used for other equipment. For wind turbines, the maximum “apparent” sound power at any wind speed must be used. For other equipment, the maximum sound power of any applicable operational mode must be used. For example, for a solar project, the inverters would be assumed to be operating at full power and the substation transformer fans would be operating. For an energy storage facility, the higher of the charging or discharging sound emissions would be used. If an energy storage project is coupled with a solar project, then both daytime and nighttime scenarios should be modeled to assess the worst case.

2) If manufacturer data is not available, then tests of the same or similar equipment can be used, or standards for the piece of equipment can be used, such as NEMA TR-1 which specifies the maximum sound emissions for liquid-immersed transformers.

3) If sound power data are otherwise not available, the published sound power levels for similar equipment can be used. The applicant must demonstrate that the equipment proposed to be used is substantially similar.

4) If none of these are available, the application must justify and explain the alternative method to determine sound power.

Some manufacturers only provide a sound pressure level at a certain distance, rather than a sound power level. Care should be taken in converting this to a sound power level, especially with larger devices such as transformers and central inverters. Standards such as IEEE C57.12.90 or an applicable selection from the ISO 3740 series (such as ISO 3744 or ISO 3746) should be used to take into account the measurement area around the source.

D1.2 Sound Monitoring (Exhibit A-1.7)

D1.2.1 Purpose

Preconstruction sound monitoring provides an understanding of potential noise impacts on the existing soundscape prior to development of an energy facility. The purpose of preconstruction sound monitoring is to determine the existing character of the area that

is being considered for construction of an energy facility. The sound monitoring should generally follow the requirements of ANSI S12.18 and ANSI S12.9 Part 3, where applicable.

D1.2.2 Equipment

Sound level meters shall meet the ANSI/IEC Class 1 performance requirements (i.e., IEC 61672-1 and ANSI S1.4 Part 1) and log 1/3 octave band equivalent sound pressure levels. The microphone shall be protected by a 7-inch diameter hydrophobic windscreen or equivalent. If possible, sound level meters should be coupled with audio recorders to aid in sound source identification and soundscape characterization.

Each sound level meter shall be field calibrated with an acoustical calibrator meeting the requirements of IEC 60942 Class 1 immediately before and after each monitoring period. Any calibration drift above 0.5 dB will be noted and addressed with respect to ANSI S12.18. Each sound level meter and field calibrator shall have been calibrated within two years and one year, respectively, of the completion of monitoring by a National Institute of Standards and Technology traceable facility.

Anemometers must be located adjacent to each monitoring station at microphone height to measure wind speed.

D1.2.3 Siting

At least two sound monitors shall be sited representative of the nonparticipating residential receptors with the highest modeled sound levels from the future facility. Preconstruction monitoring locations should be analogous to and applicable for the postconstruction study. Projects covering larger areas with more than two soundscape types should monitor at additional locations.

The monitor locations shall be outdoors and acoustically representative of a nearby residence. Specifically, monitoring equipment shall, to the extent practically possible, be placed at a similar distance from prominent soundscape sources such as roadways, heavy vegetation, and stationary equipment. The microphone shall either be façade mounted or in the free-field at least 25 feet from any building, and approximately 1.2 m to 1.5 m above ground level.

D1.2.4 Data Collection and Analysis

The target sound level metric and averaging time for assessment of noise compliance are the one-hour equivalent continuous level (L_{1h}). Sound levels shall be logged at a finer interval than one-hour to provide the fidelity to enable source characterization through 1/3 octave band spectrograms and the calculation of statistical sound levels over the course of an hour, i.e. 10th percentile (L_{10}), median (L_{50}), and 90th percentile (L_{90}) sound levels. To this end, 1/3 octave band data should be logged at least once per minute; a one-second measurement interval is preferred.

D1.2.4.1 Data Exclusions

To ensure an acoustically valid dataset, periods during which any of the following conditions occur shall be excluded from analysis:

- **High wind gusts** – Ground-level wind gust speeds above 5 m/s (11.2 mph).
- **Precipitation** – Snow, rain, and thunderstorm events identified through regional data and inspection of acoustic data.
- **Anomalies** – The presence of short-term contaminating sound caused by human or other activity that is atypical of the site or directly attributable to the presence of the equipment.
- Temperature or humidity outside the specification of the sound level meter or microphone.

If more than half of a one-hour aggregation period was not acoustically valid, (due to high winds or precipitation, for example), the entire one-hour period should be excluded from the analysis.

D1.2.4.2 Biogenic Sound

Biogenic sounds (particularly insects, birds, and amphibians) are typically tonal and can have a pronounced effect on overall A-weighted sound levels. If biogenic sounds are a dominant aspect of the soundscape during monitoring, their influence on overall sound level should be quantified.

The “ANS” frequency-weighting (ANSI/ASA S12.100) should be applied to spectral sound levels to filter out high-frequency biogenic sound. ANS filters out sound above the 1 kHz

octave band. Ideally, ANS weighting should only be used when tonal sounds, indicative of seasonal biogenic sound, are detected.

When the effect of biogenic sound is significant, that is, the overall A-weighted sound level is at least 3 dB greater than the ANS-weighted sound level, then both A-weighted and ANS-weighted sound level results shall be reported.

D1.3 Monitoring and Modeling Documentation to submit (Exhibit A-1.7)

A preconstruction noise assessment study shall include, but is not limited to, the following:

1) Facility Description

2) Maps and descriptions of sources and monitoring locations, including the distance from each to the nearest facility equipment.

3) Sound Modeling Results

    a. Model configuration and inputs

    b. Sound power level source data (by 1/1 or 1/3 octave band, if available)

    c. Tonality assessment for each source

    d. Maps of sound level isolines depicting the maximum one-hour equivalent sound level contributions to the surrounding area

    e. Table of sound level representing the maximum facility one-hour equivalent sound level at the walls of each dwelling within 1 mile of the facility.

4) Sound Monitoring Results

    a. Narrative description of the soundscape, i.e., diurnal fluctuations, common sources of sounds, anthropogenic vs. biogenic sounds, etc.

    b. Summary of overall day and night A-weighted sound level metrics (L_{eq}, L_{10}, L_{50}, and L_{90}).

    c. Overall A-weighted time history sound levels (one-hour L_{eq}, L_{10}, L_{50}, L_{90}) and meteorological data at the monitoring stations

    d. ANS weighted results for the above, if substantive biogenic sound is found.

e. A comparison of modeled sound levels to the existing background sound.

5) Discussion – An assessment of the facility's noise impacts and ability to meet the MCL 460.1226 noise limits, including a detailed description of all noise mitigation used or required to meet the noise limits.

D1.4 Postconstruction Sound Monitoring Protocol (Exhibit A-1.7)

Postconstruction Sound Monitoring Protocol - A Protocol shall be developed by the applicant for conducting postconstruction sound monitoring. The sound monitoring should generally follow the requirements of Section 1.2 of this document. The Protocol shall include details on:

1. Timing
2. Monitoring locations (maps of locations, wall-mounting or free field, etc.)
3. Equipment setup (sound level meter types, calibration methods, windscreens, etc.)
4. Data collection (including logging intervals, meteorological and operational criteria for valid periods, minimum number of valid periods, background measurements, etc.)
5. Data analysis (including background correction methods, data scrubbing methods, tonality assessments, etc.)
6. Reporting
7. Noise complaint response and resolution, detailing under what circumstances postconstruction sound monitoring would be conducted and how postconstruction monitoring would be done.

D1.5 Other documentation

Upon the request of Staff, sound modeling files and sound monitoring results shall be submitted in electronic format. Files with trade secrets or otherwise confidential information may be submitted under a confidential protective order.

D2.0 POSTCONSTRUCTION SOUND MONITORING

D2.1 Purpose

Postconstruction sound monitoring of the facility will be conducted to assess whether sound levels from the as-built facility meet the noise limits defined in MCL 460.1226. Sound monitoring should generally follow the requirements of IEC TC 61400-11-2 (for wind projects) and ANSI S12.9 Part 3, as applicable. Postconstruction sound monitoring shall be conducted in the first year after the facility is constructed, unless otherwise directed by the commission.

D2.2 Monitoring Guidelines

The noise limit for energy facilities, as defined in MCL 460.1226, is 55 dBA L_{1h} refers specifically to facility-produced sound. To ensure that facility operation is assessed in a variety of conditions, including those associated with maximum sound emissions from the facility, unattended long-term monitoring (at least seven to 10 days) should be completed, or until sufficient valid periods are obtained, as defined in the Protocol, whichever is later. Other potential avenues for demonstrating noise compliance with MCL 460.1226 are provided in Section 2.3.

D2.2.1 Equipment

Sound level meters shall meet the ANSI/IEC Class 1 performance requirements (i.e., IEC 61672-1 and ANSI S1.4) and log 1/3 octave band equivalent sound pressure levels. The microphone shall be protected by a 7-inch diameter or equivalent hydrophobic windscreen. Sound level meters should be coupled with audio recorders to aid in sound source identification and soundscape characterization. Audio recordings may be triggered by higher measured sound levels. If triggering is used, sound levels above 44 dBA should trigger recordings. Lower trigger levels may also be used.

Each sound level meter shall be field calibrated with an acoustical calibrator meeting the requirements of IEC 60942 Class 1 immediately before and after each monitoring period. Any calibration drift above 0.5 dB will be noted and addressed with respect to ANSI S12.18. Each sound level meter and calibrator shall have been calibrated within two years/one year, respectively, of the completion of monitoring, by a National Institute of Standards and Technology traceable facility.

Anemometers must be located adjacent to the monitoring station at microphone height to measure wind speed.

Additional meteorological data can be obtained from nearby National Weather Service station and/or facility logging systems.

D2.2.2 Siting

Monitors should be sited at representative locations for the two nonparticipating dwellings with the highest modeled sound level.

Additional monitors for residences with formal noise complaints regarding facility operation should also have monitoring equipment deployed. Up to three additional sound monitoring locations will be identified for monitoring, representing areas where any noise complaints were received. If more than three locations received complaints, then three will be selected based on the modeled sound levels of each location and how well a site can represent other complaint locations.[14] Consideration of whether monitoring will be done at a location will also be based on:

- The type of complaint (outdoor or indoor noise, tones, low frequency noise, amplitude modulation, vibrations, rumbles, rattles, etc., if available).
- Whether the complaint was due to a continuing operational issue or a non-recurring event.
- Whether the modeled free-field sound level is above 44 dBA (or dwelling wall is above 50 dBA).
- Whether the landowner cooperates with the study.

For facilities with centrally located equipment, like an energy storage facility or an isolated wind turbine, a “source” monitor, placed near the sound emitting equipment, can be utilized to correlate sound levels from the source.

Sound level meter microphones shall be placed outside, approximately 1.2 m to 1.5 m above the ground. The microphone shall not be placed such that any structure blocks the line of sight between the microphone and otherwise visible facility components nor in such

[14] This limit of three complaint locations only applies to the first postconstruction sound test. Complaint monitoring after this is defined in the complaint resolution process proposed in the application, and as approved by the commission.

a way that it is representative of the noise exposure at the monitoring location. A location on the nearest vertical surface of the residence can be utilized or, more commonly, a location in the free-field at least 25 feet from any building façade or other large reflective objects. If a free-field location is chosen, then 6 dB must be added to the results to account for the pressure doubling at the wall of the dwelling.

Monitoring equipment should not be placed within dense vegetation and should be away from other contributing sources of transient and consistent sound (e.g., heating systems, roadways, stationary farm equipment).

If site access is denied by a landowner to measure near or on the dwelling, the sound monitor may be sited at the closest property line at the same or similar modeled sound isoline as the dwelling. If a location with a similar sound level cannot be obtained, then an additional sound level correction shall be extrapolated to the dwelling through use of sound propagation modeling.

The one-hour equivalent average (L_{1h}) is the target sound level metric and averaging time for assessment of noise compliance. Sound levels shall be logged at a finer interval than one-hour to provide the fidelity to enable source characterization through 1/3 octave band spectrograms and the calculation of statistical sound levels over the course of an hour, i.e. 10th percentile (L_{10}), median (L_{50}), and lower 10th percentile (L_{90}) sound levels. To this end, 1/3 octave band data should be logged at least once per minute; a one-second measurement interval is preferred.

Project operation logs (SCADA) and sound levels shall be collected to categorize operational states of the facility. If necessary, confidential facility operational data can be submitted to Staff under a confidential protective order.

D2.2.3 Data Processing and Analysis

D2.2.3.1 Data Exclusions

To ensure an acoustically valid dataset, periods during which any of the following conditions occur shall be excluded from analysis:

- High wind gusts – ground-level wind gust speeds above 5 m/s (11.2 mph).
- Precipitation – snow, rain, and thunderstorm events identified through regional data and inspection of acoustic data.

- Anomalies – The presence of short-term contaminating sound caused by human or other activity that is atypical of the site or directly attributable to the presence of the equipment.

- Temperature or humidity outside the specification of the sound level meter or microphone.

If more than half of a one-hour aggregation period was not acoustically valid, (due to high winds or precipitation, for example), the entire one-hour period should be excluded from the analysis (ANSI S12.9 Part 3).

D2.2.3.2 Biogenic Sound

Sound level data containing notable biogenic sound should be treated carefully and noted in the narrative description of the monitoring site and results.

Solar Energy and Energy Storage may contribute sound at frequencies above the 1 kHz octave band. Therefore, additional care should be taken when monitoring the sound of these facilities, including scheduling postconstruction monitoring during periods where insects and other biogenic sounds are less prominent, such as late fall through early spring.

Wind Energy facility contribution of sound above the 1 kHz octave band (the sound spectrum of most biogenic sound) is typically negligible. Thus, sound monitoring for wind facilities may be conducted at any time. However, wind turbine power output, and thus sound output, tends to be highest in the late fall through early spring.

D2.2.3.3 Tonality

A prominent discrete tone is assessed by comparing the total sound level in a given 1/3 octave band to the adjacent 1/3 octave bands for each minute. The difference between the 1/3 octave band sound level is compared to the arithmetic average of the sound levels in the adjacent 1/3 octave bands. If the difference is greater than the values listed below, a prominent discrete tone is present.

- 15 dB at low frequencies (1/3 octave band center frequencies 25 Hz to 125 Hz).

- 8 dB at middle-frequency bands (1/3 octave band center frequencies 160 to 400 Hz).

- 5 dB at high-frequency bands (1/3 octave band center frequencies 500 to 10,000 Hz).

Anyone-minute period with prominent discrete tones shall have a tonal penalty of 5 dB applied to the data if the tone is audible.

D2.3 Facility Sound Level Analysis

D2.3.1 General Procedures

In general, sound levels attributable to the facility ("facility sound") can be determined by an operational shutdown-based methodology. Facility sound shall be calculated from the total (facility+ background) sound by quantifying the background sound immediately before or after a period of facility operation at the same location. The sound level attributed to facility operations shall be determined by subtracting, on an energy basis, the background sound level from the total sound level, by 1/3 octave band, consistent with ANSI S12.9 Part 3 Section 7.

The results for any free field monitoring locations shall have 6 dB added to account for the pressure doubling that would have been measured had the measurement been taken at the outer wall of the dwelling.

In some cases, long-term monitoring or facility shutdowns may not be practical due to operational characteristics or restrictions and alternatives to determine compliance with MI MCL 460.1226 are necessary.

- Short-term monitoring under worst-case meteorological and operational conditions where total free field sound levels are below 44 dBA (55 dBA noise limit with 5 dB tonality and the 6 dB façade correction) for at least three one-hour periods. No tonal or background corrections are necessary, or

- Measurements of individual sources to confirm manufacturer specifications and modeling inputs (e.g. 70 dBA at 1 meter or sound power using IEEE C57.12.90 or the applicable method in the ISO 3740 series), or

- Other methods consistent with ASA/ANSI S12.9 Part 3.

D2.3.2 Special Procedures for Wind Energy

To the extent possible, the assessment of wind turbine noise should conform to IEC TS 61400-11-2. The recommended application of the technical standard in Michigan includes practical simplifications to alleviate specialized equipment and high-fidelity SCADA data.

D2.3.2.1 Equipment, Siting, and Deployment

Monitors for assessment of wind turbines should either be mounted directly on wall or be at least 25 feet from any vertical reflecting surfaces, if possible, to minimize reflections from a façade. If the wall mount is not used, a +6 dB correction shall be applied to the resulting facility only sound levels.

D2.3.2.2 Determination of Facility Sound

The method described herein applies the filtering method similar to that presented in IEC TS 61400-11-2. It includes scheduled nighttime wind turbine shutdowns to allow for the subtraction of background sound levels.

Maximum wind turbine sound shall be assessed at night. During nighttime hours, background sound (particularly anthropogenic and avian activity) is typically lowest and meteorological conditions for robust propagation of sound are most common.

All wind turbines within 1.5 miles of a monitor location shall be shut down four to eight times per night for 20 minutes at a time. One-hour periods of wind turbine operation before and after each shutdown shall be evaluated in 10-minute[15] intervals.

From logged data for each monitor, each 10-minute period is aggregated to determine the following:

- Overall A-weighted Leq.
- 1/3 octave band Leq.
- Maximum wind gust near the ground.
- Average wind speed near the ground.

[15] SCADA data from wind turbines is commonly available in 10-minute intervals, which sets the maximum time interval for data aggregation. Care should be taken to understand the timestamp of SCADA and meteorological data: they are often referred to as the ending time of the aggregation period (e.g., 03:10 = 03:00 to 03:10). Rather, time intervals shall be referred to as the starting time of the interval (e.g., 03:00 = 03:00 to 03:10).

- Wind direction[16].
- Hub-height wind speed[17].
- Wind turbine power production[18].
- Facility operational state (e.g., ON or OFF).

To qualify as a potential measurement of the maximum facility sound, the hour adjacent to a shutdown shall have at least half of the 10-minute periods meeting the target evaluation criteria to be "valid":

- Data is acoustically valid (i.e. at least half not excluded for wind gusts, precipitation, anomalies).
- Wind turbines within 1.5 miles are operating at or within 1 dB of their maximum sound power output, expressed as an arithmetic average of those wind turbines.
- Average wind speed at microphone level is below 4 m/s and one minute wind gusts are below 5 m/s.
- The wind direction is either ±45 degrees downwind relative to the closest wind turbines or within ±45 degrees of the prevailing wind direction.

The total L_{1h} is calculated from no less than three valid 10-minute periods in the hour. The background sound level temporally adjacent shall then be logarithmically subtracted, on a 1/3 octave band basis, from the L_{1h} during operation, as described at the beginning of this section (ANSI S12.9 Part 3 Section 7) to determine the facility L_{1h}.

At least three valid facility L_{1h} periods must be collected. The highest facility L_{1h} shall be used for comparison to the MI MCL 450.1226 noise limit.

D2.3.2.3 Other Details

Since the L_{eq} is the metric of interest, ensuring that sound level data is free from anomalous and transient data during the target evaluation periods is critical to ensuring

[16] Wind direction data from the nacelle shall not be used for classifying the direction of the wind during that time when the facility is not operating.
[17] If the facility has a nearby weather station tower that collects hub height wind speed that is not in the direct wake of a turbine, the wind speed measured by the met tower at hub height is sufficient for determining when the facility is at or near maximum sound emissions.
[18] Normalized electric power output, i.e. the percent maximum power output of each turbine, can be used to compare turbines of different ratings together on a common axis.

the accuracy of the study. Anomalous data shall be excluded from background and turbine operation periods.

The temporal filtering method assumes that wind speeds do not substantively change in the 20 minutes the facility is shut down. This can be confirmed qualitatively by comparing the turbine power production prior to the shutdown to the power production afterward. Alternatively, ground wind speeds measured at each monitor can be evaluated. If they are sufficiently similar, the background period can be assumed to be representative of the background conditions during the adjacent one-hour turbine operational periods. Otherwise, the one-hour periods around the background measurement cannot be used to calculate the facility L_{1h}.

If substation noise from a wind project is the subject of a noise complaint, then the substation sound would be measured in accordance with the General Procedures of Section 2.3.

D2.4 Documentation to Submit

A sound monitoring report shall be submitted within 60 calendar days of end of the field data collection.

Sound monitoring reports must include a facility site map identifying relevant project components and nearby features of interest, including the nearest dwellings and monitor locations.

For each monitoring location, the following information will be reported:

1) Identification of monitoring locations with pictures and on a map.

2) Narrative of monitoring results - soundscape characteristics and effects of site conditions on measurements as derived from site visits and monitored data, as well as any significant features of the data or the monitoring period, such as the presence of biogenic sound.

3) Time history results

    a. Overall A-weighted hourly sound level time histories for L_{10min} and L_{1h}. The one-hour L_{90}, L_{50}, and L_{10} sound level metrics can also be included.

    b. Ground-level wind speed and rainfall.

c. Facility operational data (power output and shutdown dates/times if used).

4) Details for each compliance measurement period. For measurement methodologies that involve sound source shutdowns to establish the background sound levels, the compliance measurement period would be from one hour before the shutdown to one hour after the shutdown. Otherwise, the compliance measurement periods would consist of all valid periods under the protocol for each compliance measurement period, provide (in the report or in electronic format):

    a. 10-minute power output for individual sound sources.

    b. For wind facilities, hub height wind speed and wind direction for each wind turbine within 1.5 miles of the measurement location.

    c. Average wind speed and maximum wind gust from the monitor anemometer for each 10-minute period.

    d. Temperature and relative humidity (on site or from the nearest National Weather Service station).

    e. Unweighted 1/3 octave band and overall A-weighted sound levels for each 10-minute period.

    f. Determination of whether the period is valid and, if not, the reasoning.

    g. If the period is valid, the background-corrected facility 1/3 octave band and overall A-weighted sound level for each 10-minute period and for the entire one-hour period.

5) For wind facilities, the presence of icing as indicated through icing alarms or visual observation.

If results of the postconstruction study indicate that the facility sound levels exceed the noise limit, mitigation measures shall be detailed in the report along with a schedule of implementation.

Upon implementation of mitigation measures, the sound measurements shall be repeated under similar conditions as the exceedance(s), with the updated results filed to the docket.

D2.5 Other Documentation

Upon the request of Staff, all sound monitoring data and results shall be submitted in electronic format. If necessary, confidential data may be submitted with a confidential protective order.

D3.0 Definitions, abbreviations, and references

D3.1 Definitions

“1/3 octave band” means is a commonly used subdivision of the octave scale, which divides each octave into three bands. See “octave band.”

“**A-weighting”** means adjusting the sound level spectrum to represent the sensitivity of the human ear to sounds of low to moderate level to produce a single value (in dBA) in accordance with ASA/ANSI S1.4 Part 1.

“Ambient sound” is the total sound level, including the sound source of interest, of a wide range of sounds located near and far.

“Background sound" means sound from typical and existing elements of a soundscape, near and far, that does not include the source of interest (i.e., non-energy facility sound).

“Decibel” means 10 times the logarithm (base 10) of the ratio of a value to a reference value. In the case of sound pressure levels, the value is air pressure in Pascals (Pa) squared and the reference value is 20 micro-Pascals (μPa) squared.

“**Dwelling**” means an occupied or occupiable building where residents regularly sleep.

"Energy facility" means an energy storage facility, solar energy facility, or wind energy facility. An energy facility may be located on more than 1 parcel of property, including noncontiguous parcels, but shares a single point of interconnection to the grid.

"Energy storage facility" means a system that absorbs, stores, and discharges electricity. Energy storage facility does not include either of the following:

(i) Fossil fuel storage.

(ii) Power-to-gas storage that directly uses fossil fuel inputs.

“Equivalent continuous sound level” also “time-averaged sound level” means 10 times the logarithm (base 10) of the ratio of the time-mean-square frequency-weighted sound

pressure signal during a stated time interval and expressed as a decibel. The shortened form is $L_{eq.}$ To indicate the time interval, the shortened form can be “L” with the time subscripted as in L_{1h} for a time period of one hour. See ASA/ANSI S1.1-2013.

“Frequency” means the number of times in a second one cycle of a waveform passes a fixed space. The perceived pitch of a sound is proportional to its frequency. The relationship between wavelength (l) and frequency (f) is dependent on the speed of sound (c) as f = c / l. The typical hearing range for young healthy individuals is roughly between frequencies of 20 Hz (1 Hertz is one cycle per second) and 20,000 Hz (also designated as 20 kHz, where 1 kHz is one thousand cycles per second). The distribution of frequencies in a sound are often referred to as spectral characteristics or a spectrum.

“Free-field” means an environment with negligible sound reflections.

“Low frequency sound” means, nominally, the 1/3 octave band frequencies between 20 Hz and 200 Hz, inclusive.

"Nonparticipating property" means a property that is nearby an energy facility and not a participating property.

"Occupied community building" means a school, place of worship, day-care facility, public library, community center, or other similar building that the applicant knows or reasonably should know is used on a regular basis as a gathering place for community members.

“Octave band” means a sound spectrum range whose upper frequency limit is twice its lower frequency limit (the same concept as an octave in music). The band is identified by its center frequency, as defined in ASA/ANSI S1.6-2016.

"Participating property" means real property that either is owned by an applicant or that is the subject of an agreement that provides for the payment by an applicant to a landowner of monetary compensation related to an energy facility regardless of whether any part of that energy facility is constructed on the property.

“Inverter” means a device to convert direct current (DC) power to alternating current (AC) power. It is a component of Solar Energy and Energy Storage facilities. Types include, but are not limited to, “central” and “string” inverters. In Energy Storage facilities, they are often referred to as or a component of a PCS (power conversion system).

“Project” means the facility that is the subject of the application to the commission that is proposed to be constructed or repowered.

“SCADA” means the Supervisory Control and Data Acquisition System that collects time-stamped information from field devices such as wind turbines, solar panels, inverters, transformers, and battery storage units.

"Solar energy facility" means a system that captures and converts solar energy into electricity, for the purpose of sale or for use in locations other than solely the solar energy facility property. Solar energy facility includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: photovoltaic solar panels; solar inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage facilities; overhead and underground control; communications and radio relay systems and telecommunications equipment; utility lines and installations; generation tie lines; solar monitoring stations; and accessory equipment and structures.

“Sound power level” means the level of the acoustic energy radiated from a source. It is often expressed as SWL or L_w and expressed in decibels (dB) referenced to 1 picoWatt.

“Sound pressure level” means the fluctuating air pressure that constitutes sound as expressed in the logarithmic scale of decibels (dB) referenced to 20 micropascals.

“Tonal” means that a sound that has energy concentrated in a narrow frequency range. Tonal sounds of the same overall sound level are more noticeable than broadband sound. Sounds emissions from transformers, energy storage units, and inverters are typically tonal. Although multiple procedures exist for determining tonal prominences, the methods described in ANSI S12.9 Part 3, which utilizes 1/3 octave band data to assess tonal prominence, is specified herein.

"Wind energy facility" means a system that captures and converts wind into electricity, for the purpose of sale or for use in locations other than solely the wind energy facility property. Wind energy facility includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: wind towers; wind turbines; access roads; distribution, collection, and feeder lines; wires and

cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage facilities; overhead and underground control; communications and radio relay systems and telecommunications equipment; monitoring and recording equipment and facilities; erosion control facilities; utility lines and installations; generation tie lines; ancillary buildings; wind monitoring stations; and accessory equipment and structures

D3.2 List of Acronyms and Abbreviations

ACP – American Clean Power Association

ANS – A, Natural Sounds – an A-weighted decibel that eliminates sounds at and above the 1,600 Hz 1/3 octave band.

ANSI – American National Standards Institute

ASA – Acoustical Society of America

BESS – Battery energy storage system

dBA – A-weighted decibels

dBZ – Z-weighted (unweighted) decibels

G – The portion of ground that is porous, with 0 representing hard ground and 1 representing porous ground (as defined in ISO 9613-2)

Hz – Hertz, expressed as cycles per second

IEC – the International Electrotechnical Commission

ISO – the International Organization for Standardization.

INCE - the Institute of Noise Control Engineering

$\mathbf{L_{eq}}$ - equivalent continuous sound pressure level

$\mathbf{L_{1h}}$ – one-hour equivalent continuous sound pressure level

m – meters

m/s – meters per second

NEMA – National Electrical Manufacturers Association

D3.3 Standards Referenced in this Document

The following are standards referenced in this document as of the publication date. The applicant may use this version of the standard or, if the standard is updated after publication, the most recent version.

ASA/ANSI S1.1-2013. Acoustical Terminology

ASA/ANSI S1.4 Part 1-2014 / IEC 61672-1-2013. Electroacoustics – Sound Level Meters – Part 1: Specifications

ASA/ANSI S1.6-2016. Preferred Frequencies and Filter Band Center Frequencies for Acoustical Measurements

ASA/ANSI S12.9-2013 Part 3 (2023). Quantities and Procedures for Description and Measurement of Environmental Sound — Part 3: Short-term Measurements with an Observer Present

ASA/ANSI S12.9-2021 Part 4 (2021). Quantities and procedures for description and measurement of environmental sound — Part 4: Noise assessment and prediction of long-term community response.

ANSI/ASA S12.54-2011 / ISO 3744:2010 (2016). Acoustics – Determination of sound power levels and sound energy levels of noise sources using sound pressure – Engineering methods for an essentially free field over a reflecting plane

ANSI S12.56-2011 / ISO 3746:2010 (2016). Acoustics – Determination of sound power levels of noise sources using sound pressure – Survey method using an enveloping measurement surface over a reflecting plane

ANSI/ASA S12.100-2014 (2014). Methods to Define and Measure the Residual Sound in Protected Natural and Quiet Residential Areas

IEC 60942 (2017). Electroacoustics – Sound calibrators.

IEC 61400-11 (2012). Wind turbines – Part 11: Acoustic noise measurement techniques.

IEC TS 61400-14 (2005). Wind turbines – Part 14: Declaration of apparent sound power level and tonality values.

IEC TS 61400-11-2 (2024). Wind energy generation systems – Part 11-2: Acoustic noise measurement techniques – Measurement of wind turbine sound characteristics in receptor position.

IEEE C57.12.90 (2021). IEEE Standard test code for liquid-immersed distribution, power, and regulating transformers.

ISO 9613-2 (2024). Acoustics — Attenuation of sound during propagation outdoors — Part 2: Engineering method for the prediction of sound pressure levels outdoors.

NEMA TR 1-2013 (2019). Transformers, Step Voltage Regulators, and Reactors.

D3.4 MCL 460.1226

MCL 460.1226 (the “MI Noise Limit Statute”) states:

The commission shall grant the application and issue a certificate if it determines...[t]he [energy] facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.

ATTACHMENT E

SAMPLE DECOMMISSIONING AGREEMENT

SAMPLE DECOMMISSIONING AGREEMENT

This Decommissioning Agreement is entered into between **[INSERT APPLICANT NAME]** a **[INSERT BUSINESS STRUCTURE AND STATE OF ORGANIZATION]** at **[INSERT BUSINESS ADDRESS]** ("Applicant") and the Michigan Public Service Commission (the "Commission" or "MPSC") at 7109 W Saginaw Hwy, Lansing, MI 48917.

WHEREAS, PA 233 of 2023 (the "Act") provides siting authority to the Commission for utility-scale solar, wind, and energy storage projects under specific conditions and requires applications under the Act to include a "decommissioning plan that is consistent with agreements reached between the applicant and other landowners of participating properties and that ensures the return of all participating properties to a useful condition similar to that which existed before construction, including removal of above-surface facilities and infrastructure that have no ongoing purpose";

WHEREAS, the ACT provides that the "decommissioning plan shall include, but is not limited to, financial assurance in the form of a bond, a parent company guarantee, or an irrevocable letter of credit, but excluding cash";

WHEREAS, on **[INSERT APPLICATION DATE]** the Applicant applied to the Commission for a certificate pursuant to MCL 460.1221 *et seq*. (the "Application") for a _____ megawatt **[INSERT ONE OF THE FOLLOWING: solar energy facility, wind energy facility, or energy storage facility]** referred to as **[INSERT NAME OF PROJECT]** located at **[INSERT PROJECT LOCATION]** (the "Project"); and

WHEREAS, the Commission opened a contested case pursuant to MCL 460.1226(3) entitled MPSC Case No. **[INSERT CASE NUMBER]** to conduct a proceeding on the Application and found, pursuant to MCL 460.1226(7), that the Application should be approved, subject to the conditions set forth in the Commission's **[INSERT ORDER DATE]** Order (Attachment A to this Agreement) and the Commission-approved decommissioning plan (Attachment B to this Agreement).

NOW, THEREFORE, the parties to this Agreement set forth the following terms and conditions of the Project decommissioning to which the parties, as well as any subsequent successors in interest, are bound:

1. **Term.** This Agreement is effective **[INSERT EFFECTIVE DATE]** and will continue until terminated as provided below.

2. **Decommissioning Obligations.** The Applicant shall satisfy all obligations for decommissioning the Project as provided in this Agreement, the Commission order approving the Project certificate, and the Commission-approved Decommissioning Plan. These obligations shall ensure the return of all participating properties to a useful condition similar to that which existed before construction, including removal of above-surface facilities and infrastructure that have no ongoing purpose. Specifically, these decommissioning obligations include:

    2.1. **[INSERT OTHER PROJECT-SPECIFIC DECOMISSIONING ACTIVITIES CONSISTENT WITH THE ORDER AND DECOMMISSIONING PLAN]**

    2.2. **State and Local Units of Government Requirements.** The Applicant remains bound to obtain any permits or other authorizations required by the State or any local unit of government for purposes of decommissioning activities.

3. **Decommissioning Process.**

    3.1. **Initiation.** Decommissioning of the Project shall commence under any of the following conditions ("Decommissioning Trigger Events"):

        3.1.1. **Applicant-Initiated Decommissioning.** The Developer may, subject to its agreements with the participating landowners and the terms of Commission approval, provide written notice to the parties of this Agreement, and the affected local unit's chief elected official, of its intent to decommission the Project or a portion thereof.

        3.1.2. **Landowner Agreements.** The Applicant has entered into separate agreements with the owners of the land on which the Project will be developed. To the extent these agreements require decommissioning within a stated period or upon specific events, decommissioning shall commence no later than upon the triggering of such terms to the extent not in conflict with the Commission Order. This decommissioning agreement is intended to be consistent with applicable landowner agreements to the extent not in conflict with the Commission Order.

        3.1.3. **Depowering.** [**ADJUST THIS TERM BASED ON RESOURCE TYPE**] If the Project ceases to generate, store, or produce electricity for twelve

(12) consecutive months, the project shall be deemed depowered and decommissioning shall commence unless the Applicant can demonstrate that the lack of generation, storage, or production is the result of a reasonable and temporary condition for which there is an appropriate remedy approved through a Commission proceeding. If a Project fails to generate, store, or produce electricity within 5 years of commencing construction, it shall be deemed depowered, and decommissioning shall commence unless the Applicant can demonstrate through a Commission proceeding that generation, storage, or production will proceed within a reasonable time and manner. If the Project begins to generate, store, or produce electricity in accordance with the requirements of this Agreement and the Commission order approving the Project certificate before a decommissioning activity commences, the depowering may be deemed reversed pursuant to a Commission proceeding.

3.1.4. **Failure of Financial Assurance.** The **Applicant** must replace any expiring financial assurance instrument meeting the requirements of this Agreement and the Commission order approving the Project (including any Estimated Decommissioning Cost updates pursuant to Paragraph 4.2.3) no less than ninety (90) days prior to the expiration date of the financial assurance instrument**.** If the **Applicant** fails to do so, then decommissioning shall commence; provided, that prior to commencing decommissioning for failure to replace the expiring financial assurance instrument, the **Applicant** shall have at least thirty (30) days to cure such failure. If the **Applicant**'s financial assurance is to be revoked, terminated, or otherwise ceases to meet the requirements of the Act and Commission order approving the Project certificate, the Developer must immediately notify the parties to this Agreement. If the **Applicant** cannot cure this inadequacy and bring the Project into conformance with the Act and Commission order approving the Project certificate within thirty (30) days, then decommissioning shall commence.

3.1.5. **Change of Ownership.** If the ownership of the Project is transferred, the **Applicant** seeks to dissolve, or the ownership structure of the Developer is otherwise changed, the Developer must immediately file a demonstration in the MPSC docket assigned to the Project confirming the continued compliance with the Project certificate and the continued validity of the financial assurance. If the Applicant fails to make any such

demonstrations within 30 days of the underlying change, then decommissioning shall commence.

3.1.6. **Repowering.** If the Applicant attempts to repower the Project, as defined by MCL 460.1221(v), the Developer must seek a new certificate pursuant to MCL 460.1222. If the Developer begins repowering but fails to seek a new certificate, then decommissioning shall commence unless the Developer halts all repowering activities and initiates the procedures for seeking local approval or a certificate to the satisfaction of the Commission within thirty (30) days of the start of repowering activities.

3.2. **Decommissioning Notice.** Upon the occurrence of any of the above-specified Decommissioning Trigger Events, the Applicant shall immediately provide written notice to the parties to this agreement and the affected local units of government and file such notice in the MPSC docket assigned to the Project.

3.3. **Completion Notice.** Within sixty (60) days of completing decommissioning activities, the Applicant must notify the Commission and submit a decommissioning report that includes a summary of decommissioning activities and a description of any mitigation measures used during decommissioning in the MPSC docket assigned to the Project.

3.4. **Commission Decommissioning Authority.**

3.4.1. **Commission-Initiated Decommissioning.** If the Applicant, its successors or assigns, or any other person controlling the Project fails, refuses, or neglects to initiate decommissioning within 180 days of any of the Decommissioning Trigger Events, the Commission shall itself have the right, but not the obligation, to perform the Applicants decommissioning obligations under this Agreement, the Commission order approving the Project certificate, and the Commission-approved Decommissioning Plan. In such event, the Applicant (or its successors or assigns) agrees to give the Commission and its contractors or agents the right to possess, dispose of, and otherwise decommission the property that makes up the Project and shall defend, hold harmless, and indemnify the Commission for any and all claims, liability, loss, or damage arising out of its exercise of its right to decommission the Project as provided for herein, except in cases of negligence by the Commission or any of its contractors or agents. The Commission shall not be required to expend funds beyond those funds provided through the financial assurances in order to perform the Applicant's

decommissioning obligations. In the event the Applicant (or its successors or assigns) subsequently takes steps to initiate such activities and a decommissioning proceeding before the Commission within a reasonable time, the Commission may refrain from decommissioning activities and allow the Applicant (or its successors or assigns) to commence the necessary actions.

3.4.2. **Access Representations.** The Applicant hereby represents that it has the rights of ingress, egress, access, and possession to the Project location pursuant to its agreements with Landowners and that the Commission's rights under this Agreement are consistent with the terms of such agreements with the landowners. The Commission shall provide reasonable notice to the Applicant and Landowner before entering the Project location if Commission-initiated decommissioning is warranted. The Applicant hereby represents it possesses the authority to grant such authority pursuant to its lease agreements and property rights.

3.4.3. **Future Obligations.** The parties to this Agreement acknowledge and agree that appropriation of funds is a legislative function that the Commission cannot contractually commit itself to perform. The Commission's obligations under this Agreement will not constitute a general obligation of the State of Michigan and the Commission's obligations under this Agreement will not constitute either a pledge of the full faith and credit or the taxing power of the State of Michigan.

4. **Financial Assurance. [ADJUST THESE TERMS FOR IRREVOCABLE LETTERS OF CREDIT OR PARENT COMPANY GUARANTEES]**

4.1. **Estimated Decommissioning Cost.** Pursuant to MCL 460.1225(r) and the Commission order approving the Project certificate, the estimated cost of decommissioning the project ("Estimated Decommissioning Cost"), which is subject to the periodic updates described below, is initially $_____. The Estimated Decommissioning Cost is intended to include the following:

4.1.1. Costs for removal of energy facility equipment and infrastructure, land restoration and reclamation, and insurance requirements calculated by a third party with expertise in decommissioning.

4.1.2. Salvage value for energy facility equipment and infrastructure calculated by a third party with expertise in decommissioning.

4.1.3. The cost to hire a decommissioning consultant to manage the decommissioning process in the event of Applicant abandonment or bankruptcy.

4.2. **Bond Acquisition. [ADJUST THIS TERM BASED ON APPROVED FINANCIAL ASSURANCE SCHEDULE]** No later than the start of construction, the Applicant shall post a Decommissioning Bond in the amount of at least $_____ for the benefit of the Commission, which is 25% of the Estimated Decommissioning Cost. No later than 1 year from the beginning of construction, the Applicant shall post a Decommissioning Bond in the amount of at least $_____ for the benefit of the Commission, which is 50% of the Estimated Decommissioning Cost. No later than the start of full commercial operation, the Applicant shall post a Decommissioning Bond in the amount of at least $_____ for the benefit of the Commission, which is 100% of the Estimated Decommissioning Cost. The bond shall conform to the Bond Agreement (Attachment C to this Agreement).

4.2.1. **Renewal.** The Applicant or its successor in interest to the Project shall be responsible for renewing the Bond until the financial assurance requirement is terminated pursuant to this agreement and the Commission order approving the Project certificate. At the end of each bond term, the Applicant shall renew the bond.

4.2.2. **Decommissioning Cost Update.** The Estimated Decommissioning Cost shall be updated as follows:

4.2.2.1. **Timeline.** For the first twenty (20) years of commercial operation, the Estimated Decommissioning Cost will be updated every five (5) years. Starting in the twenty-first (21st) year of commercial operation and continuing until the financial assurance requirement is terminated pursuant to this agreement and the Commission order approving the Project, the Estimated Decommissioning Cost will be updated every three (3) years. The amount of any bond obtained subsequent to an Estimated Decommissioning Cost update must be based on such updated costs.

4.2.2.2. **Expert Review.** The Estimated Decommissioning Cost must be updated by a third party with expertise in decommissioning based on the updated decommissioning plan.

4.2.2.3. **Updated Decommissioning Plan.** Upon the Estimated Decommissioning Cost update, the Decommissioning Plans must be updated to incorporate any improvements in the decommissioning process or necessary changes. The Applicant will file the updated Decommissioning Plan with the Commission in the MPSC docket assigned to the Project.

4.2.2.4. **Updated Financial Assurance.** Upon the Estimated Decommissioning Cost update, the financial assurance shall be updated according to such updated cost estimates.

4.3. **Use of Funds.** If a Decommissioning Trigger Event occurs, the financial assurance is called upon, and the Commission performs some or all of the Applicant's decommissioning obligations, all funds received by the Commission through the Commission's claims on the financial assurances for the Project shall be used for reasonable costs incurred by the Commission in connection with performing the Applicant's decommissioning obligations for the project and expenses related thereto (including, but not limited to, third-party consultant and administrator fees, litigation expenses, attorney fees, and expert fees).

5. **Annual Showing.** Every year, **no later than [ADD DATE SPECIFIED BY THE COMMISSION],** the Developer must file proof that the financial assurance requirements are satisfied in the MPSC docket assigned to the Project along with a summary of the power generated, stored, or produced for the proceeding twelve (12) month period and a description of any portions of the Project that have failed to generate, store, or produce electricity during the proceeding twelve (12) months, including the extent and length of such depowering.

6. **Termination.**

6.1. **Commission-Approved Decommissioning.** Upon completion of all decommissioning obligations described in this agreement, the Commission order approving the Project certificate, and the Commission-approved Decommissioning Plan, the Applicant may apply to the Commission for termination of this Agreement. The Commission shall determine whether any outstanding obligations exist. Otherwise, the Commission shall terminate this Agreement.

6.2. **Financial Assurance Termination.** If the Applicant applies for, and is granted, termination of this Agreement upon completion of all decommissioning

obligations as addressed in the preceding paragraph, then the Commission may terminate the applicable financial assurance requirements.

7. **Miscellaneous.**

7.1. **Assignment.** No party may assign all or any part of this Agreement without the other parties' prior written consent. This Agreement inures to the benefit of the parties hereto and their successors and permitted assigns and is binding on each other and each other's successors and permitted assigns.

7.2. **Conflicts.** In the event of a conflict between the Commission order approving the Project certificate and this Agreement or any agreements between the Applicant and Landowner, the Commission order shall control.

7.3. **Severability.** Any provision of this Agreement held to be void or unenforceable will not affect the validity of its remaining provision.

7.4. **Amendment.** This Agreement cannot be modified or waived in any way without express agreement signed by all parties.

7.5. **Counterparts.** This Agreement may be executed and delivered in counterparts and duplicate originals, including by a facsimile and/or electronic transmission thereof, each of which shall be deemed an original. Any document generated by the parties with respect to this Agreement, including this Agreement, may be imaged and stored electronically.

7.6. **Choice of Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan.

[INSERT APPLICANT NAME]

_____

Print Name: _____

MICHIGAN PUBLIC SERVICE COMMISSION

_____

Print Name: _____

ATTACHMENT F

EXHIBIT A-14 - CONDITIONS

PROPOSED MINIMUM CONDITIONS

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 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.

1. An agreement from the applicant to obtain and comply with construction or building permits from the ALU for the renewable energy and energy storage facilities; or to enter into a third-party independent monitor agreement, funded by the applicant, where the monitor is selected in consultation with the Staff to be onsite during the periods when construction is taking place on a weekly basis to monitor the construction activities. The independent monitor would be granted authority to resolve complaints and request immediate cessation of activities that the monitor can document are in material breach of any plan, permit or agreement pertaining to the construction of the facility. The third-party independent monitor shall provide periodic reports to the Staff, the ALU, and the applicant from the start of construction and continuing through the first 3 months of commercial operation. The cadence of the reports will be determined by the independent monitor in consultation with the Staff.

2. An agreement from the applicant to participate in a pre-construction meeting with the Staff and either the ALU who has issued a construction or building permit, or a third-party independent monitor, to ensure the Staff has access to the most recent information and final documentation prior to construction for use in answering questions and assisting with complaints. Invitations to attend the pre-construction meeting should be extended to representatives of ALUs, however, their attendance would not be required. The certificate may also be conditioned on the applicant's agreement to file the final drawings, plans, and permits received in the docket prior to the start of construction. The filing of final drawings, plans, and permits received are for completeness and transparency in the record and the pre-construction meeting serves to ensure that the final plans conform with the certificate approved by the Commission.

3. 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.

4. An agreement by the applicant to file mechanical completion certificates for the facilities in the MPSC docket assigned to the project

5. An agreement by the applicant to implement a complaint resolution process as approved by the Commission as a condition of certificate approval that includes 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.

6. An agreement by the applicant to provide emergency contact information for its representative of the proposed facility in the MPSC docket assigned to the project and to file updated emergency contact information at a minimum on an annual basis or as necessitated by applicant personnel changes.

7. An agreement by the applicant to implement screening, including, but not limited to, vegetation, walls, and fencing berms, as approved by the Commission as a condition of the siting certificate.[19]

8. An agreement by the applicant to implement vegetative ground cover in consideration of Michigan State University's "Michigan Pollinator Habitat Planning Scorecard for Solar Sites" and avoiding invasive species as approved by the Commission as a condition to the siting certificate.

9. An agreement by the applicant to bury underground infrastructure to a minimum depth of 4 feet or as approved by the Commission as a condition to the siting certificate.

10. An agreement by the applicant to contract with and pay for a third-party acoustics expert to conduct post-construction sound measurements in accordance with sound modeling and measurement procedures[20] adopted by

[19] Brownfield sites may have unique requirements related to fencing, screening, landscaping, and vegetative cover.

[20] Sound modeling and measurement procedures are under development.

the Commission and file the results in a report in the MPSC docket assigned to the project. An agreement that if the post-construction sound measurements do not meet the statutory requirements, noise mitigation plans will be implemented, and the post-construction sound measurements will be repeated, and the results will be filed in a subsequent report in the docket.

11. An agreement by the applicant to demonstrate compliance in accordance with sound modeling and measurement procedures adopted by the Commission with the sound provisions in the statute upon request by the MPSC in response to customer complaints and to maintain compliance with the sound provisions in the statute by implementing additional noise mitigation measures during facility operations should the sound levels be non-compliant with the statute.

12. For a wind project, an agreement by the applicant to mitigate shadow flicker that does not meet the statutory provisions, report to the Commission on the mitigation plans, and report to the Commission on the results of the mitigation to reduce the shadow flicker. Such reports shall be filed in the MPSC docket assigned to the project

13. An agreement by the applicant to, at the applicant's cost, contract with a third party to conduct a pre-construction study of radio reception near planned installation of wind facilities and to remedy, at the applicant's cost, any impacts to reception caused by the wind energy facility and restore reception to at least the levels present before the wind energy facility began operations. If no impact is expected, provide support for why this is not necessary to include.

14. For battery storage projects, an agreement by the applicant to provide annual training for local fire departments and other first responders. For wind and solar projects, an agreement to conduct additional training for local fire departments and other first responders upon request.

15. Approval 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.

16. Approval contingent upon the execution of a decommissioning agreement approved by the Commission and an agreement by the applicant to demonstrate that financial assurance has been acquired and will be maintained throughout the operational life of the facilities, as outlined in the decommissioning agreement.

17. An agreement by the applicant to comply with all other applicable (non-zoning) ordinances throughout the operational life of the facilities that were in effect at the time the MPSC certificate was issued.

18. An agreement by the applicant to comply with the provision of periodic reports over time (as specified by the Commission as a condition of approval) on the amount of electricity produced per turbine or per parcel, a report listing complaints received during the time period as well as the developer/operators' response including resolution and/or plans for mitigation, a report outlining the operating condition and performance of the facilities on the site (including non-producing ancillary equipment, structures, fencing, locks, gates, screening, vegetative ground cover and other items specifically listed in the condition), a report listing any failures of equipment or structures that took place during the period as well as repairs that have been made during the time period or are planned or underway, and a report of any improvements made to the site or facilities during the period as well as any planned improvements or planned changes to the site or facilities including changes to fencing or ancillary equipment during the reporting period, to be filed in the docket.

19. An agreement by the applicant to provide annual maintenance plans and annual inspection results in the MPSC docket assigned to the project.

20. An agreement by the applicant to utilize a project labor agreement or operate under a collective bargaining agreement for the construction and maintenance work to be performed.

21. An agreement by the applicant to enter into an agreement with the County Road Agency regarding reimbursement for the repair and restoration of County roads modified or damaged during the construction process. In lieu of an agreement with a County Road Agency, a signed letter from the County Road Agency indicating that an agreement is not necessary may be submitted.