

**MARION TOWNSHIP PLANNING COMMISSION
AGENDA**

REGULAR MEETING

March 25, 2025

7:30 PM

Virtual access instructions to participate in the meeting are posted on www.mariontownship.com
MEETING WILL BE HELD IN MAIN HALL

Call to Order:

Pledge of Allegiance:

Introduction of Members:

Approval of Agenda for: March 25, 2025 Regular Meeting

Approval of Minutes from: February 25, 2025 Regular Meeting

Call for Public Comment:

New Business:

1) Renewable Energy Ordinance Review

2) Zoning Ordinance Update List

3) Master Plan Word Document

Special Orders:

Announcements:

Call for Public Comment:

Adjournment:

Marion Township Public Participation Policy at Township Planning Commission Meetings

The Public shall be given an opportunity to be heard at every Township Planning Commission Meeting following the adoption of this Policy.

The Planning Commission Chairperson is the moderator of the meeting. In the absence of the Chairperson, the Planning Commission VICE-Chairperson shall be the moderator of the meeting.

The Public attending the meeting either in-person or on-line may speak during the "Call to the Public" part of the meeting agenda. To preserve order, those attending in-person will speak first. When all in-person attendees have been heard, the moderator will ask if any on-line attendee wishes to speak.

When recognized by the moderator, in-person attendees shall come to the podium. The moderator will request that they give their name and address before they begin their comments. When all in-person attendees have finished speaking, the moderator will ask if anyone attending the meeting on-line wishes to speak. On-line attendees may unmute themselves and when recognized by the moderator may speak. On-line attendees will also be asked for their name and address.

All comments shall be addressed to the Township Planning Commission members. The "Call to the Public" is for attendees to provide information or opinions to the Township Planning Commission and is not intended to be a dialogue. Anyone needing a response should contact officials or staff during normal office hours.

The Public attending the meeting either in-person or on-line will be allowed to ask questions and make comments about NEW and UNFINISHED agenda items. These questions and comments must be made during the discussion of that agenda item. Anyone that would like to speak will raise their hand indicating their desire to speak.

When recognized by the moderator, in-person attendees shall come to the podium. The moderator will request that they give their name and address before they begin their comments. When all in-person attendees have finished speaking, the moderator will ask if anyone attending the meeting on-line wishes to speak about the NEW or UNFINISHED agenda item. On-line attendees may unmute themselves and when recognized by the moderator may speak. On-line attendees will also be asked for their name and address.

The moderator can close the questions and comments session about a NEW and UNFINISHED agenda item at his/her discretion.

To preserve efficiency, at any time during the meeting, each speaker, whether in-person or online will be limited to THREE MINUTES.

**MARION TOWNSHIP
PLANNING COMMISSION
REGULAR MEETING MINUTES
FEBRUARY 25, 2025 / 7:30PM**

PC MEMBERS PRESENT: LARRY GRUNN – *CHAIRPERSON*
JIM ANDERSON – *VICE-CHAIRPERSON*
CHERYL RANGE – *SECRETARY*
BILL FENTON
BRUCE POWELSON

PC MEMBERS ABSENT: NONE

OTHERS PRESENT: BOB HANVEY – *MARION TWP. ZONING ADMINISTRATOR*

CALL TO ORDER

Larry Grunn called the meeting to order at 7:30 pm.

APPROVAL OF AGENDA

Bruce Powelson made a motion to approve the February 25, 2025 agenda as presented. Jim Anderson seconded. **5-0 MOTION CARRIED**

APPROVAL OF MINUTES

Bill Fenton made a motion to approve the January 28, 2025 Planning Commission minutes as presented. Jim Anderson seconded. **5-0 MOTION CARRIED**

CALL TO PUBLIC

No comment made by the public.

NEW BUSINESS:

ZONING ORDINANCE DISCUSSION

Bill Fenton explained that there are some things in our Zoning Ordinance that need to be corrected such as;

- Condo ordinance section 6.18
- The Development Standards
- Private Road access language
- Section 6.18 / 2 E

Bill asked the Commissioners to come up with a list of other things throughout the ordinance that need to be reviewed or corrected.

Larry Grunn asked if a list of complaints could be included in the Planning Commission packet each month.

Jim Anderson asked if someone could locate the Microsoft Word version of the Master Plan.

Bill Fenton said he would talk to John Gormley and the County about the policy on changing language and when to have a public hearing.

Larry Grunn asked for an update on the Chris Smith case. Bill Fenton said that we are currently in the discovery phase and sharing any information or documents that are being requested.

DRAFT

SPECIAL ORDERS

Bill Fenton discussed the process of hiring a new Zoning Administrator.

ANNOUNCEMENTS

Larry Grunn asked Bill to talk to John Gormley about his recommended process for taking complaints.

Larry Grunn stated that Putnam Township is currently working on updating their Master Plan.

CALL TO PUBLIC

Les Andersen stated that he would like to form a committee to handle the hiring process for the new Zoning Administrator. He would like the Supervisor, Township Attorney, a Trustee and a Planning Commissioner to be part of the committee.

Les Andersen asked Bob Hanvey if the Planning Commission operates under the Board of Trustee's supervision. Bob Hanvey said that it is up to each jurisdiction. Marion Township decided that their Planning Commission is a recommending body, that operates under the direction of the Board of Trustees.

Les Andersen gave Bill some resumes for the new Zoning Administrator position.

AJOURNMENT:

Bill Fenton made a motion to adjourn the Planning Commission meeting at 8:30pm. Larry Grunn seconded.

5-0 MOTION CARRIED

MINUTES TAKEN BY: Jessica S. Timberlake

MARION TOWNSHIP

ZONING ORDINANCE TEXT AMENDMENT

5

UTILITY-SCALE BATTERY ENERGY STORAGE FACILITIES

AN AMENDMENT TO THE MARION TOWNSHIP ZONING ORDINANCE TO ESTABLISH SPECIFIC STANDARDS FOR UTILITY-SCALE BATTERY ENERGY STORAGE FACILITIES; ADD DEFINITIONS RELATED TO UTILITY-SCALE BATTERY ENERGY STORAGE FACILITIES; AMEND ZONING DISTRICTS TO ALLOW FOR THE USE; AND AMEND THE TABLE OF CONTENTS ACCORDINGLY.

SECTION 1. AMENDMENT OF ARTICLE XVII STANDARDS FOR SPECIFIC SPECIAL LAND USES

15 *ARTICLE XVII STANDARDS FOR SPECIFIC SPECIAL LAND USES IS AMENDED BY THE ADDITION OF NEW §17.38 UTILITY-SCALE BATTERY ENERGY STORAGE FACILITIES, WHICH SHALL READ AS FOLLOWS:*

Section 17.38 Utility-Scale Battery Energy Storage Facilities

20 **A. Intent and Purpose:** The intent and purpose of this section is to establish standards for the siting, installation, operation, repair, decommissioning, and removal of Utility-Scale Battery Energy Storage Facilities; establish the process for the reviewing and permitting of such facilities; protect the health, safety, welfare and quality of life of the general public; ensure compatibility with land uses in the vicinity of the areas affected by such facilities; and comply with state law.

25 **B. Locational Requirements:** Utility-Scale Battery Energy Storage Facilities are subject to the locational requirements below.

1. Zoning Districts: Utility-Scale Battery Energy Storage Facilities are permitted by special use permit in the SFO Solar Farm Overlay District only.
2. Spacing: Utility-Scale Battery Energy Storage Facilities shall be at least two thousand five hundred (2,500) feet from any adjacent, existing Utility-Scale Battery Energy Storage Facility.

30 **C. Site Requirements:** Utility-Scale Battery Energy Storage Facility sites shall meet the site standards below.

1. Site Composition: The site may consist of a single participating property or multiple adjoining participating properties. All participating properties must have signed agreements to participate in the Utility-Scale Battery Energy Storage Facility.
2. Lot Area: The site shall have a total net lot area of at least twenty (20) acres and no more than one thousand (1,000) acres.
3. Access: Utility-Scale Battery Energy Storage Facilities shall meet the access standards below.

40 a) Road or Easement: The site, all fenced compounds, and every battery storage component shall have direct access from a public road or an access easement with a

maximum length of one thousand two hundred fifty (1,250) feet and width of at least thirty-three (33) feet.

5 b) Access Drive Material: Access drives shall have a hard surface or material that can pack hard that is sufficient to support fire apparatus and provide access at all times of the year.

c) Access Drive Maintenance: Access drives must be maintained and kept accessible at all times. The applicant, owner, operator, and property owners shall be jointly and severally responsible for maintenance of the access roads.

10 d) Access Drive Design: Access drives shall be designed to reduce the impact on agricultural use of the land and the visual impact. Access drives shall not impede the natural flow of water.

e) Gates and Doors: All access gates and doors to Utility-Scale Battery Energy Storage Facility compounds and electrical equipment shall be lockable and kept secured at all times when service personnel are not present.

15 f) Compound Surface Material: Utility-Scale Battery Energy Storage Facility compounds shall have a hard surface or material that can pack hard that is sufficient to support fire apparatus and provide access at all times of the year.

4. Setbacks: Buildings or structures containing batteries, fenced compounds, accessory structures, and electrical equipment shall meet the setback standards below.

20 a) Measurement: Setbacks from any battery buildings or structures or accessory structures shall be measured horizontally from the edge of the building or component structure.

b) Fences and Improved Areas: All fences and improved areas shall comply with the applicable setback for the underlying zoning district in which it is located.

25 c) Fenced Compounds: All structures and improved areas located within the fenced compound shall be at least thirty (30) feet from the fence line.

d) Utility-Scale Battery Energy Storage Systems: Utility-Scale Battery Energy Storage systems and related accessory structures shall meet the minimum setbacks in the table below.

Setback from	Distance
Non-participating property lines	100 feet
Occupied buildings on non-participating properties	500 feet
Occupied buildings on participating properties	500 feet
Lakes, rivers, creeks, and similar bodies of water and Wellhead Protection Areas	100 feet
Road rights-of-way	100 feet

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5. Battery Component Spacing: Battery component spacing shall comply with industry standards and be adequate to provide emergency access throughout the facility.

6. Height: Utility-Scale Battery Energy Storage components must not exceed a maximum height of twenty-five (25) feet above ground.
7. Lighting: Lighting shall be limited to inverter or substation locations only and shall comply with §14.04(E) Lighting.
- 5 8. Utility-Scale Battery Energy Storage Structures: Utility-Scale Battery Energy Storage Facility structures within a Utility-Scale Battery Energy Storage Facility shall meet the design standards below.
- a) Consistent: All Utility-Scale Battery Energy Storage Facility and related accessory structures within the facility shall be of the same appearance.
- 10 b) Good Condition: All Utility-Scale Battery Energy Storage Facility systems and related accessory structures shall be maintained in good condition at all times, consistent with or better than industry standards.
- c) Certification: Utility-Scale Battery Energy Storage Facility systems and related accessory structures shall be approved by the Institute of Electrical and Electronics Engineers (IEEE), International Electrotechnical Commission (IEC), or other similar certification organization.
- 15 9. Wiring: All power transmission, communication, or other lines, wires, or conduits within a Utility-Scale Battery Energy Storage Facility shall meet the standards below.
- a) Stray Voltage: All wiring shall comply with all applicable safety and stray voltage standards. Stray voltage originating from a Utility-Scale Battery Energy Storage Facility shall not be detected on any participating or non-participating properties.
- 20 1) Preconstruction Test: A preconstruction stray voltage test shall be conducted on all Michigan Department of Agriculture & Rural Development (MDARD) registered livestock facilities located within a one-mile radius of all participating properties. The tests shall be performed by an investigator approved by the Township at the applicant's expense.
- 25 2) Report: A report of the tests shall be provided to the Township and the owners of all property included in the study area.
- 3) Permission: The applicant shall seek written permission from property owners prior to conducting testing. Testing shall not be required on non-participating properties where the owners have refused to grant permission to conduct the testing. The owner of any participating property shall not refuse the stray voltage testing.
- 30 b) Underground: Wiring shall be underground, except for power switchyards or the area within a fenced substation. When the Township finds underground wiring is not feasible due to soil or water conditions, the above-ground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.
- 35 c) Depth: Wiring shall be located at a depth to prevent any damage from freezing or frost, to prevent interference with drain tiles, and at a depth that complies with current National Electrical Code standards.
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- d) Interference: Wiring shall be located and designed to not cause interference with wired or wireless communication systems.
 - e) Armoring: Concrete armoring techniques shall be used at every location where wiring crosses a county drain, watercourse, water line, or sewer line.
 - 5 f) Marking: Permanent, visible markers or tracing wires shall be installed to indicate the location of wiring.
 - g) Drain Tiles: Wiring shall be located to minimize conflict with drain tiles.
10. Drain Tiles Drain tiles within the Utility-Scale Battery Energy Storage Facility shall be preserved and maintained throughout the construction, operation, and restoration periods, as described below.
- 10
- a) Initial Inspection: Before the start of construction, all existing drain tiles within the facility and within any disturbed areas must be inspected by robotic camera with the imagery submitted to the Township for baseline documentation on tile conditions.
 - 15 b) Continuing Inspection: Drain tiles must be re-inspected by robotic camera every three (3) years while the facility is in operation or when conditions indicate there may be damage to drain tiles with the imagery submitted to the Township.
 - c) Repairs: Damaged drain tiles shall be repaired within sixty (60) days of discovery. The Township shall be notified of any necessary repairs before the work commences and documentation of the repair work. Repairs necessary to address an emergency situation may be completed without prior notice to the Township.
 - 20 d) Inspection: The Township reserves the right to have a Township official or agent present at the time of repair of the drainage tile system.
 - e) A report of the inspection results detailing status of all drains within the project area will be provided to the Township within thirty (30) days of completion of the physical inspection. These inspection reports may be shared with other township officials and agents.
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11. Fire Suppression: A fire suppression system shall be provided that is specifically designed to immediately suppress and extinguish fires in any part of the Utility-Scale Battery Energy Storage Facility, including the battery components, electrical equipment, and transformers.
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- a) Documentation: Documentation shall be provided confirming the effectiveness of the fire suppression system and the results of a third-party independent inspection, as approved by the Township, of the fire suppression system.
 - 35 b) Fire Authority: The fire suppression system shall be reviewed and approved by the Township's fire authority.
 - c) Annual Inspection: The fire suppression system shall be inspected and approved yearly by a third-party independent inspecting company that is approved by the Township.
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12. Groundcover: Utility-Scale Battery Energy Storage Facilities shall include the installation of perennial ground cover vegetation that shall be maintained for the duration of operation until the site is decommissioned where appropriate within the site.

5 a) PA 116 Lands: Land within the project area that is enrolled or bound by the Farmland Preservation Program must follow the Michigan Department of Agriculture and Rural Development (MDARD) Policy for Allowing Commercial Renewable Energy Development on PA 116 Lands.

10 b) Non-PA 116 Lands: Land within the project area that is not enrolled or bound by the Farmland Preservation Program must provide at least one (1) of the following types of dual-use ground cover to promote ecological benefits:

1) Pollinators: Pollinator habitat with a score of at least seventy-six (76) on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites (www.pollinators.msu.edu);

15 2) Conservation Cover: Conservation cover focused on restoring native plants, grasses, or prairie with the aim of protecting specific species, such as bird habitat, or providing specific ecosystem services, such as carbon sequestration or improving soil health;

3) Grazing: Incorporation of rotational livestock grazing and forage production as part of an overall vegetative maintenance plan; or

20 4) Crops: Raising crops for food, fiber, or fuel and generating electricity within the site to maximize land use.

c) Alternative Ground Cover: The Township may approve or require alternative ground cover upon finding it is not feasible to provide groundcover as defined above.

25 d) Ground Cover Nature: All ground cover must be native plants with substantial root systems to support soil. Turf grass is not permitted as ground cover.

e) Invasive and Noxious: Invasive species and noxious weeds are not permitted and must be removed in a timely manner.

30 13. Fencing: Utility-Scale Battery Energy Storage Facility compounds shall be completely surrounded by a fence designed to prevent unauthorized access and to screen the facility.

a) Height: The fence shall be at least seven (7) feet tall.

b) Fence Posts: Fence posts shall extend at least thirty-six (36) inches into the ground, and gate posts and corner posts shall have a concrete foundation.

35 c) Fence Type: The fence shall be a woven agricultural-style fence. The Township may require or allow durable green opaque material to be integrated into the fence if necessary for buffering or screening.

d) Gate Access: Gates shall be provided at all access points, unless otherwise permitted or approved. Gates for vehicular access shall be approved by the Fire Authority.

40 e) Gate Type: Gates shall be the same height and constructed of the same material as the fencing. Access, such as Knox box, shall be provided for emergency responders.

f) Wildlife Considerations: The Township may require or allow a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.

g) Alternative Fencing: Alternate fencing may be approved by the Township upon a finding that the alternative provides adequate access control and visual screening.

14. Signage: Advertising or non-project related graphics shall be prohibited. This exclusion does not apply to signs required by this Ordinance.

D. Buffering Requirements: Utility-Scale Battery Energy Storage Facilities shall provide buffering described below.

1. Vegetative Buffer: There shall be a landscape buffer at least twenty (20) feet wide along the exterior of any fenced compound, whenever existing natural vegetation does not otherwise reasonably obscure the fenced compound.

a) Design: The buffer shall have two (2) rows of staggered evergreen trees planted twelve (12) feet apart or less trunk-to-trunk. The two (2) rows shall be ten (10) feet apart. The Township may consider an alternative landscape buffer, provided the alternative buffer provides adequate screening.

b) Vegetation Size: Plantings shall be at least eight (8) feet tall at time of planting, measured from the top of the root ball to the base of the leader, not including the height of the leader, and must be a species that can reasonably be expected to reach a height of ten (10) feet within three (3) growing seasons.

c) Maintenance: The trees may be trimmed but must maintain a height of at least eighteen (18) feet. Damaged or diseased trees shall be replaced at the next appropriate planting season.

d) Evergreen Species: Evergreen trees shall be Norway Spruce in the row closest to fence and Thuja Green Giant Arborvitae in the row away from the fence. The Township may require or consider alternative evergreen species, provided the alternative species are more desirable due to disease or pest or more appropriate for the local conditions.

2. Buffer Maintenance: Good arboricultural techniques shall be followed with respect to vegetation, including, but not limited to, proper pruning, proper fertilizing, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be replanted in a manner consistent with these standards at the next appropriate planting season.

a) The Utility-Scale Battery Energy Storage Facility will be inspected on at least an annual basis to insure compliance with the Buffer Maintenance provisions outlined above.

b) A confirmed violation of the Buffer Maintenance provision above must be addressed within thirty (30) days of the owner/operator of the Utility-Scale Battery Energy Storage Facility with a proposed resolution of the complaint submitted to the Township.

E. Performance Standards: Utility-Scale Battery Energy Storage Facilities shall meet the performance standards below.

1. Compliance: Utility-Scale Battery Energy Storage Facilities shall be designed, constructed, operated, and maintained in compliance with all applicable provisions of local, state, and federal laws and regulations and industry standards.
2. Sound: The sound generated by a Utility-Scale Battery Energy Storage Facilities must meet the sound standards of this Ordinance and the additional standards below.
 - a) Day Sound Level: The maximum sound level shall be forty (40) Dba Lmax, as measured at the project boundary and road rights-of-way between the hours of 7:00 am and 9:00 pm.
 - b) Night Sound Level: The maximum sound level shall be thirty-five (35) Dba Lmax, as measured at the project boundary and road rights-of-way between the hours of 9:00 pm and 7:00 am.
 - c) Pure Tone: If pure tones are produced, the maximum sound level shall be reduced by five (5) Dba.
 - d) Ambient Sound: If the ambient sound levels exceed these standards, the maximum sound level shall be the ambient sound level plus five (5) Dba.
 - e) Inverter Sound Screening: A sound barrier of a solid decorative masonry wall or evergreen tree berm, with trees spaced not less than ten (10) feet apart, must be constructed to reduce noise levels surrounding all inverters. Berms must be within ten (10) feet of all inverters and must be at least as tall as all inverters but cannot be more than three (3) feet taller than the height of the adjacent inverters.
 - f) Continued Compliance: The sound level generated by a Utility-Scale Battery Energy Storage Facility must be inspected every three (3) years, at the operator's expense, by an auditory expert to ensure compliance with applicable sound standards.
3. Reports: In addition to other reports identified in this Ordinance, the owner or operator shall submit the following reports to the Township during the operation of Utility-Scale Battery Energy Storage Facilities.
 - a) Annual Report: An annual report shall be provided to the zoning administrator showing continuity of operation.
 - b) Operation. A report shall be provided to the zoning administrator if the Utility-Scale Battery Energy Storage Facility or any of its components are no longer being used.
 - c) Incident Report: Reports shall be submitted if there is a major incident at the Utility-Scale Battery Energy Storage Facility that did or could have caused harm to life or property, including calls for service from emergency responders. The report shall identify the cause of the incident and corrective action to prevent future incidents of that nature.
4. Safety: Utility Solar Energy Facilities shall be subject to the safety standards below.
 - a) Warning Signs: The manufacturers or installer's identification and appropriate warning signs shall be posted on or near each solar array and electrical equipment in a clearly visible manner.

- b) Fire Suppression and Data Sheets: Fire suppression plans and Safety Data Sheets shall be kept onsite and be accessible for emergency responders.
- c) Safety Manual: An un-redacted copy of the manufacturer's safety manual for each component of the Utility-Scale Battery Energy Storage Facility, without distribution restraints, will be provided before construction commences. These will be kept at the Township Hall and other locations deemed necessary by the Township or local first responders. The manual should include standard details for an industrial site such as materials, chemicals, fire, access, and safe distances during a Utility-Scale Battery Energy Storage Facility failure, processes in emergencies, etc.
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- 10 5. Interference: Utility-Scale Battery Energy Storage Facilities must not interfere with any radio, television, or other communication systems. The applicant or operator must resolve any known interference immediately and provide proof that the interference has been resolved within ninety (90) days.
- 15 6. Complaint Resolution: Utility-Scale Battery Energy Storage Facilities shall provide a complaint resolution process, as described below.
- a) Signs: Signs with contact information to report complaints related to the Utility-Scale Battery Energy Storage Facility shall be posted throughout the project area. Signs shall be posted before construction begins and maintained until decommissioning is complete.
- 20 b) Resolution Options: Any resolution shall include lawful and reasonable solutions consistent with this Ordinance.
- c) Contact: A twenty-four (24) hour, toll-free number shall be established and maintained by the owner or operator to receive complaints. Additional reporting methods, such as postal mail or electronic mail, may also be used.
- 25 d) Log: A log shall be kept by the owner or operator of all complaints received and documentation of the resolution. The log shall be available for review by Township Officials.
- e) Notification: The zoning administrator shall receive notification of all complaints received. An annual report shall be submitted to the Township that details all complaints received, the status of complaint resolution, and actions taken to resolve complaints.
- 30 f) Resolution Period: Complaints for hazardous conditions shall be resolved within twelve (12) hours or as soon as reasonably possible. Other complaints shall be resolved within ten (10) business days.
- 35 g) Adjudication: The operator or its assigns reserve the right to adjudicate any claims, including residential claims, in a court of competent jurisdiction.
7. Insurance and Performance Guarantees: Utility-Scale Battery Energy Storage Facilities shall provide insurance and performance guarantees. These are in addition to other insurance or performance guarantees required by this Ordinance or other entities.
- 40 a) General Liability Insurance: Utility-Scale Battery Energy Storage Facilities shall have and maintain general liability insurance of at least ten million (\$10,000,000) dollars. The Township may require a higher amount for larger projects and may allow for a

lesser amount for smaller projects upon a finding that the alternate amount is more consistent with the likely risk.

5 b) General Maintenance Performance Guarantee: A General Maintenance Performance Guarantee shall be provided before construction commences to guarantee all aspects of this Ordinance are met at all times during the construction and operation of the Utility-Scale Battery Energy Storage Facility. At the time of the application, the applicant shall submit two (2) third-party contractor bids for construction of all fencing, landscaping, and drainage improvements associated with the Utility-Scale Battery Energy Storage Facility, and the performance guarantee shall be the higher of the two (2) bids. The Township may use the performance guarantee to repair any landscaping, fencing, drainage infrastructure (including drainage tiles), and/or to correct any ongoing violation of this Ordinance in the event that the site improvements for the Utility-Scale Battery Energy Storage Facility is not maintained or the Utility-Scale Battery Energy Storage Facility fails to make operational changes to correct an operational violation.

10 c) Road Performance Guarantee: A road performance guarantee shall be provided before construction commences in a form acceptable to the Township, such as: a) a surety bond from a surety listed as acceptable on the Federal Surety Bond circular 570 of the U.S. Department of Treasury; or b) an acceptable irrevocable letter of credit; or c) an escrow account established in a financial institution licensed in the State of Michigan. A construction surety bond shall not be accepted. The amount of the performance guarantee shall be at least one million two hundred fifty thousand dollars (\$1,250,000), but this amount may be increased if the third-party consultant determines the amount needed for road repairs is greater than this amount. The performance guarantee shall only be released, in whole or part, when the Township Board, in consultation with the Livingston County Road Commission and Michigan Department of Transportation, as applicable, and the third-party inspector, determines that all required road work has been completed and approved by the affected road agencies. The Township may waive or reduce the requirement for this performance guarantee if the road agencies collect a performance guarantee.

20 d) Complaint Inspection Escrow: An escrow account, funded by the applicant, owner, or operator, to be used for investigation of complaints shall be established before construction commences. The escrow account shall be used by the Township for investigation of complaints, including reasonable reimbursement of qualified third-party agents, for, but not limited to, glare, stray voltage, sound, and signal interference. The escrow account shall be kept with the Township Treasurer. The initial escrow account shall be in the amount of fifteen thousand dollars (\$15,000). When the escrow account balance is below five thousand dollars (\$5,000), the Township shall notify the responsible party, who must replenish the escrow account to the amount of fifteen thousand dollars (\$15,000) within a period of forty-five (45) calendar days.

30 8. Dust Control: Reasonable dust control measures shall be taken during construction, operation, and decommissioning.

35 9. Plants and Grasses: Plants or grasses not part of the buffer area shall be maintained at a height of twelve (12) inches or less. The Township may approve a taller height upon a finding that it will not result in a nuisance.

10. Wildlife: Utility-Scale Battery Energy Storage Facilities shall be designed, sited, and operated in a manner to minimize impact on wildlife.

5 a) Wildlife Impact Analysis: The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on wildlife and endangered species. At a minimum, the analysis shall include a thorough review of existing information regarding species and potential habitats in the vicinity of the project area. Where appropriate, surveys for bats, raptors, or general avian use should be conducted. The analysis shall include the potential effects on species listed under the federal Endangered Species Act and Michigan's Endangered Species Protection Law.

10 b) Adverse Impacts: Appropriate measures shall be taken to minimize, eliminate, or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

15 c) Special Scrutiny: Sites requiring special scrutiny include wildlife refuges, other areas where birds are highly concentrated, bat hibernacula, wooded ridge tops that attract wildlife, sites that are frequented by federally- or state-listed endangered species of birds and bats, significant bird migration pathways, and areas that have landscape features known to attract large numbers of raptors.

20 d) US Fish and Wildlife Service: The applicant shall follow all pre-construction and post-construction recommendations of the United States Fish and Wildlife Service.

25 e) Post-Construction Mortality Study: A post-construction wildlife mortality study may be required. The analysis should indicate if such a study is determined unnecessary and the reasons why such a study does not need to be conducted. All above-ground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.

11. Environment: Utility-Scale Battery Energy Storage Facilities shall be designed, sited, and operated to minimize impact on the environment.

30 a) Environmental Impact Analysis: The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on the natural environment including, but not limited to, wetlands and other fragile ecosystems, historical and cultural sites, and antiquities.

35 b) Adverse Impacts: Appropriate measures shall be taken to minimize, eliminate, or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

40 c) Environmental Laws: Utility-Scale Battery Energy Storage Facilities shall comply with applicable parts of the Michigan Natural Resources and Environmental protection Act (Act 451 of 1994, MCL 324.101 et seq.), Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et seq.), Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.), Part 303 Wetlands (MCL 324030301 et seq.), Part 323 Shoreland Protection and Management (MCL 324.32301 et seq.), Part 325 Great Lakes Submerged Lands (MCL 324.32501 et seq.), and Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.).

- d) Containment System: A containment system shall surround any transformers in case of hazardous waste or oil spills.
- e) Removal: All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.
- 5 f) Responsibility: The Utility-Scale Battery Energy Storage Facility owner, operator, and property owner shall be jointly and severally responsible for mitigating erosion, flooding, and all other environmental impacts resulting from the Facility.

12. Emergency Action Plan: Utility-Scale Battery Energy Storage Facilities shall have an emergency action plan to identify actions to be taken in event of an emergency.

10 a) The Emergency Action Plan shall jointly reviewed and approved by the Howell Fire Department and Livingston County Emergency Management Director before the operation of the Utility-Scale Battery Energy Storage Facility can begin commercial operation. The Emergency Action Plan shall be reviewed every three years by the
15 Howell Fire Department and the Livingston County Emergency Management Director. All approvals or reviews of the Emergency Action Plan shall be provided to the Township. The cost for any review shall be the responsibility, jointly and severally, of the Utility-Scale Battery Energy Storage Facility owner or operator.

20 b) Fire Suppression: The emergency action plan must include a fire suppression plan, including the technology to be used.

c) Special Equipment and Training: The emergency action plan shall identify special equipment and training that is required for emergency response to the Utility-Scale Battery Energy Storage Facility.

25 d) The cost of purchasing the required special equipment for fire protection shall be the responsibility, jointly and severally, of the owner and operator, of Utility-Scale Battery Energy Storage Facility.

e) Clean-up: The emergency action plan must include plans for immediate containment, cleanup and long-term aftermath efforts following an emergency.

30 f) Emergency Training: Before the Utility-Scale Battery Energy Storage Facility is operational, the owner or operator of the Utility-Scale Solar Energy Facility must provide the necessary training, equipment, or agreements specified in the emergency action plan to the Township, Howell Fire Department, Livingston County Emergency Response Director or any other emergency personnel at the local, state or federal level. All training must be consistent with current industry standards.

35 g) The cost of the required training for the fire protection personnel shall be the responsibility, jointly and severally, of the owner and operator of the Utility-Scale Battery Energy Storage Facility.

40 h) Once a year a fire suppression training shall be held with the cost of such training shall be the responsibility, jointly and severally, of the owner and operator of the Utility-Scale Battery Energy Storage Facility.

i) Public Record: The Emergency Action Plan will be a public record. Copies of the most up to date Emergency Action Plan will be maintain at all times at the Utility-

Scale Battery Energy Storage Facility, the Marion Township Hall, the Howell Fire Department substation located at the Marion Township Hall, and at the office of the Livingston County Emergency Response Director. This plan shall be available for public inspection if requested.

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F. General Provisions: Utility-Scale Battery Energy Storage Facilities shall be subject to the general provisions below.

1. **Damage Repair:** The owner, operator, and property owner shall be jointly and severally responsible for making repairs to any public roads, drains, and infrastructure damaged by the construction of, use of, maintenance of, or damage to the Utility-Scale Battery Energy Storage Facility.
2. **Mixed Facilities:** Utility-Scale Battery Energy Storage Facilities may be co-located with other renewable energy facilities, such and Utility-Scale Solar Energy Facilities or Utility-Scale Wind Energy Conversion Facilities. Review and approval are required for each use.
3. **As-Builts:** The applicant shall submit an as-built drawing with dimensions relative to property lines of all new structures including turbines and buried cable both inside and outside fenced areas upon completion and before any power is supplied to the grid. The as-built drawing shall be a scale of 1" = 200 feet.
4. **Repowering or Modifications:** Any modifications of an approved site plan or special use permit that are made after the initial date of approval, including, but not limited to, an expansion of project, repowering, reconfiguration, technological updates, shall require new site plan and special use permit applications. Any changes of the approved site plan or special use permit will be subject to this Ordinance as it exists at time of this new application.
5. **Transfer or Sale:** In the event of a transfer or sale of a Utility-Scale Battery Energy Storage Facility, the new owner or operator must notify the Township within thirty (30) days, and the zoning administrator shall administratively amend the permit to name the new owner or operator. Upon transfer or sale, the cash bond shall be transferred to the new owner or operator and shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security bond adjusted to account for the new estimate.

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G. Decommissioning, Abandonment, and Restoration: Following the operational life or abandonment of a Utility-Scale Battery Energy Storage Facility, the site shall be decommissioned and restored as outlined below.

1. **Decommissioning Plan:** The applicant shall have a third-party qualified professional, acceptable to the Township, prepare a decommissioning plan. The decommissioning plan shall be written to provide security to the township for one hundred twenty-five percent (125%) of the cost to remove and dispose of all battery components and wiring and to restore the land to its original conditions. The decommissioning security shall be paid in cash to the Township.
 - a) **Anticipated Life:** The decommissioning plan shall describe the anticipated life span of the Utility-Scale Battery Energy Storage Facility and its components.

- b) Decommissioning Costs: The decommissioning plan shall provide a probable cost estimate for decommissioning, including current cost and cost at the time of decommissioning.
- 5 c) How Paid: The decommissioning plan shall provide a description of how decommissioning costs will be paid.
- d) Regular Updating: The decommissioning plan shall be updated on a regular, period basis at of at least once every three (3) years.
- 10 2. Abandonment: Utility-Scale Battery Energy Storage Facilities or any components that are not operated for a continuous period of six (6) months shall be considered abandoned, whether or not there is an intent to continue the use, and shall be removed or restored to operation. An extension may be granted by the Township upon finding that the delay does not create a hazardous condition and the application has demonstrated a good faith effort to continue operation.
- 15 3. Damage: Any Utility-Scale Battery Energy Storage Facility components that are damaged shall be replaced or removed within seven (7) days. An extension may be granted by the Township upon finding that it is not feasible to replace or remove the component in that period and that the delay does not create a hazardous condition.
- 20 4. Unsafe: Any unsafe components shall be removed or made safe within a reasonable period as determined by the Township.
5. Compaction Prevention: All abandonment and decommissioning work must be done when soil is dry or frozen to prevent compaction.
- 25 6. Chemical Analysis and Boring: : A chemical analysis and boring of the soil, as recommended by the Township engineer shall be performed before any decommissioning work begins with the results compared to the baseline soil chemical analysis baseline test results obtained before construction of the Utility-Scale Battery Energy Storage Facility.
- 30 a) Chemical Levels: All levels of any chemical entity found in the soil chemical analysis must be equal to or are lower than the levels of all chemical entities determined in the baseline testing performed prior to construction. If a new chemical entity, either organic or inorganic compounds, are identified in the soil chemical analysis, its level must be below established federal and state government levels for hazardous materials in soils for that chemical entity.
- 35 b) Report: A report of the soil chemical analysis must be provided to the Township within seven (7) days. If any chemical entity, organic or inorganic compounds, are above established federal and state government levels for hazardous materials in soils, the report must be submitted to the appropriate Federal and State regulatory agencies within seven (7) days of receiving the testing report showing a violation.
- 40 c) Violation Mitigation: Once a violation has been determined and finalized, a reclamation plan for the contaminated soil must be developed and implemented to remove the contaminated soil from the Utility-Scale Battery Energy Storage Facility site. The reclamation plan must meet all Federal and State regulations for the reclamation of a contaminated site. The plan must be approved by the Township Board and the Township engineer. Once the contaminated soil has been removed and replaced with uncontaminated soil, a final soil chemical analysis shall be

performed to confirm the Utility-Scale Battery Energy Storage Facility site soils have been returned to its original state for levels of organic and inorganic compounds that existed before construction.

- 5 d) Cation Exchange Capacity: A Cation Exchange Capacity soil test shall also be required at the completion of the decommission process. The company to complete this study will be determined jointly by the Township and the property owner. The final report of this test shall be submitted to the Township and property owner for review and comment.
- e)
- 10 f) Violation Remediation: Any negative variations from the preconstruction soil testing must be remedied and the final results of the testing approved by the Township engineer and the Township Board.
- 15 7. Ground Restoration: The ground must be restored to its original topography and land must be restored to a depth of three (3) feet below grade within three hundred sixty-five (365) days of abandonment or decommissioning. An extension may be granted by the Township if a good-faith effort has been demonstrated and any delay is not the result of actions or inaction of the operator. An alternative topography can be approved by the Township as part of the original site plan review or later as part of decommissioning.
- 20 8. Land Balancing: If land balancing is required, all top soil will be saved within the project site and spread evenly over balanced area.
9. Township Action: The Township may remove any abandoned or unsafe Utility-Scale Battery Energy Storage Facility components that are not removed or restored within the allowed time. The owner, operator, and property owner shall be jointly and severally responsible for any costs.
- 25 10. Attorney Costs: The owner, operator, and property owner shall be jointly and severally responsible for the payment of all attorney fees and other costs incurred by the Township in the event that the Township has to enforce removal.
11. Vegetation: Disturbed land shall be revegetated at the next appropriate planting season.
- 30 12. Disposal: It shall be the responsibility, jointly and severally, of the owner, operator, and property owner of Utility-Scale Battery Energy Storage Facility to remove all structures, equipment, and waste shall be removed from the site and disposed of properly. All costs for this disposal of structures, equipment, and waste shall be the total responsibility, jointly and severally, of the Utility-Scale Battery Storage Facility owner, operator and property owner.
- 35 a) Compliance with the above provisions of Section G. Decommissioning, Abandonment, and Restoration, shall be determined by review of all actions, documents and reports of said decommissioning by the Board of Trustees of Marion Township.
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H. Application Materials: Applications for Utility-Scale Battery Energy Storage Facilities must submit the following additional materials with the special use permit application. These materials are in addition to information required for site plan and special use permit applications.

1. Identification: The name and address in full of the applicant, developer, owner, operator and property owners, a statement that the applicant is the owner involved in the application, and any additional contact information shall be submitted.
- 5 2. Application Dating: Each application for a Utility-Scale Battery Energy Storage Facility shall indicate the date the application is received by the Township.
3. Purchase Agreements or Leases: Copies of all purchase agreements or leases for all participating properties that confirm the applicant has the permission of the participating property owners to apply for the necessary approvals and permits for construction and operation of a Utility-Scale Battery Energy Storage Facility.
- 10 4. Project Description: A general description of the proposed project, including name-plate generating capacity and an anticipated construction schedule shall be submitted.
5. Battery Components: A complete description of the proposed technology to include type of battery components, dimensions, anticipated life, and any hazardous materials contained in the battery components shall be submitted.
- 15 6. Conceptual Plan: A graphical computer-generated depiction of how the Utility-Scale Battery Energy Storage Facility will appear from all directions shall be submitted.
7. Documentation: A complete set of photos and video of the entire development area, including construction access roads, as it exists before the application date shall be submitted.
- 20 8. Operation: A description of operations, including anticipated regular and unscheduled maintenance and the hours of the day maintenance will take place shall be submitted.
9. Power Purchase Agreement: A copy of the power purchase agreement or other written agreement with an electric utility showing approval of an interconnection with the proposed Utility-Scale Battery Energy Storage Facility shall be submitted.
- 25 10. Insurance: Proof of the general liability insurance to cover the Utility-Scale Battery Energy Storage Facility, the Township, and the participating property owners shall be submitted.
- 30 11. Certifications: Certification shall be submitted that the Utility-Scale Battery Energy Storage Facility will comply with all applicable state and federal laws and regulations in effect at the time the application is submitted, including, but not limited to: Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); and Part 365, Endangered Species Protection (MCL324.36501 et. seq.).
- 35 12. Farmland Preservation Approval: Utility-Scale Battery Energy Storage Facilities with any participating properties that are enrolled in the Michigan Farmland Preservation program must provide confirmation of approval from the Michigan Department of Agriculture to locate the facility on the property.
- 40 13. Road Agencies: Proof of approval or conditional approval by any road agency from which the Utility-Scale Battery Energy Storage Facility will have access or whose roads will be used as a construction or maintenance route shall be submitted.

14. Drain Commission: Proof of approval or conditional approval by and the Livingston County Drain Commission for any Utility-Scale Battery Energy Storage Facility that has participating properties with a county drain or propose improvements within a county drain easement.
- 5 15. Manufacturers' Safety Data Sheet(s): Documentation include the type and quantity of all materials used in the operation of all equipment shall be submitted.
16. Wildlife Impact: Copy of the wildlife impact analysis shall be submitted.
17. Environmental Impact: Copy of the environmental impact analysis shall be submitted.
- 10 18. Soil Chemical Analysis: A chemical analysis and borings including a Cation Exchange Capacity (CEC) of the soil involved in the project must be completed as recommended by the Township engineer.
19. Complaint Resolution Protocol: Copy of complaint resolution protocol shall be submitted.
20. Decommissioning Plan: Copy of the decommissioning plan shall be submitted.
- 15 21. Emergency Action Plan: Copy of the emergency action plan shall be submitted.
22. Indemnification: An attestation that the applicant, owner, operator, and property owners, jointly and severally, will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-Scale Battery Energy Storage Facility, which is subject to the Township's review and approval, shall be submitted.
- 20 23. Right-to-Enter: Submission of an application for a Utility-Scale Battery Energy Storage Facility grants the Township and its agents the right to enter the facility and any participating property for inspection of the Utility-Scale Battery Energy Storage Facility at any reasonable time. The Township may hire a consultant to assist with any such inspections at a reasonable cost to be charged to the applicant, owner, or operator, jointly and severally.
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Additional Information: Any additional information, studies, or documentation requested by the Township or its agents that are deemed necessary to determine compliance with this Ordinance and other applicable laws and regulations.

- 30 I. **Utility-Scale Battery Energy Storage Facilities under PA 233:** On or after November 29, 2024, once PA 233 of 2023 is in effect, the following provisions apply to Utility-Scale Battery Energy Storage Facilities with a name-plate capacity of at least fifty (50) megawatts and an energy discharge capacity of at least two hundred (200) megawatt hours. These provisions below shall control to the extent that they conflict with the other provisions in §17.38 Utility-Scale Battery Energy Storage Facilities. This subsection does not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect. This subsection does not apply to Utility-Scale Battery Energy Facilities with a nameplate capacity of less than 50 megawatts or an energy discharge capability of fewer than 200 megawatt hours. All provisions in §17.38 Utility-Scale Battery Energy Facilities that do not conflict with this subsection remain in full force and effect.
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1. Setbacks: Utility-Scale Battery Storage must comply with the minimum setback requirements in the table below, with setback distances measured from the nearest edge of the perimeter fencing of the facility.

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

- 5 2. Fencing Installation: Fencing-Installation for the Utility-Scale Battery Energy Storage Facilities must comply with the latest version of the National Electric Code as of November 29, 2024, or as subsequently amended.
- 10 3. Sound: Utility-Scale Battery Storage Facilities must not generate a maximum sound in excess of fifty-five (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.
- 15 4. Lighting: Utility-Scale Battery Storage Facilities must implement dark sky-friendly lighting solutions.
- 20 5. Environmental Regulations: Utility-Scale Battery Energy Storage Facilities must comply with applicable state or federal environmental regulations
- 25 6. Host Community Agreement: The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Utility-Scale Battery Energy Storage Facility owner must pay the Township two thousand dollars (\$2,000.00) per megawatt of nameplate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or other projects as agreed to by the Township and the applicant.
- 30 7. PA 233 Requirements: The Utility-Scale Battery Energy Storage Facility shall be subject to the other applicable rules and regulations outlined in PA 233 of 2023 and by the Michigan Public Service Commission.
8. Applicant's Option: An applicant can elect at the time of application to have their application for a Utility-Scale Battery Energy Storage Facility processed using the other provisions of §17.38 Utility-Scale Battery Energy Storage Facilities, even if PA 233 of 2023 is in full effect.

SECTION 2. AMENDMENT OF ARTICLE III DEFINITIONS

§3.02 DEFINITIONS IS HEREBY AMENDED TO ADD THE FOLLOWING UTILITY-SCALE BATTERY ENERGY STORAGE FACILITY DEFINITION, WHICH SHALL BE PLACED IN

[Marion Battery Energy BOT 1 29 2025 \(LAA Redline\)\(201253486.1\).docx](#)[Marion Battery Energy BOT 1_29_2025.docx](#)

ALPHABETICAL ORDER WITH EXISTING DEFINITIONS, WHICH SHALL READ AS FOLLOWS:

5 **Utility-Scale Battery Energy Storage Facility:** A facility with energy storage systems that absorb, store, and discharge electricity with a name-plate capacity of at least fifty (50) megawatts and an energy discharge capacity of at least two hundred (200) megawatt hours. This does not include fossil fuel storage or power-to-gas storage that directly uses fossil fuel input.

10 **SECTION 3. AMENDMENT OF ARTICLE XII SOLAR FARM OVERLAY DISTRICT**

§12.01(B) PERMITTED ACCESSORY USES IS HEREBY AMENDED TO ADD THE FOLLOWING ACCESSORY USE, WHICH SHALL READ AS FOLLOWS:

3. Accessory uses or structures clearly incidental to the operation of an approved Utility-Scale Battery Energy Storage Facility.

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§12.01(C) USES PERMITTED BY SPECIAL USE PERMIT IS HEREBY AMENDED TO ADD THE FOLLOWING USE PERMITTED BY SPECIAL USE PERMIT, WHICH SHALL READ AS FOLLOWS:

3. Utility-Scale Battery Energy Storage Facilities.

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SECTION 4. AMENDMENT OF TABLE OF CONTENTS

THE TABLE OF CONTENTS IS HEREBY AMENDED FOR CONSISTENCY WITH THE ABOVE AMENDMENTS AND TO ACCOMMODATE REPAGINATION.

25 **SECTION 5. SEVERABILITY AND VALIDITY**

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

SECTION 6. REPEALER

30 All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

SECTION 7. EFFECTIVE DATE

35 This Ordinance takes effect upon the expiration of 7 days after publication as required by MCL 125.3401(7).

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MARION TOWNSHIP
ZONING ORDINANCE TEXT AMENDMENT
UTILITY-SCALE WIND ENERGY CONVERSION FACILITIES

5 AN AMENDMENT TO THE MARION TOWNSHIP ZONING ORDINANCE TO ESTABLISH
SPECIFIC STANDARDS FOR UTILITY-SCALE WIND ENERGY CONVERSION FACILITIES;
ADD DEFINITIONS RELATED TO UTILITY-SCALE WIND ENERGY CONVERSION FACILITIES;
AND AMEND THE TABLE OF CONTENTS ACCORDINGLY.

10 **SECTION 1. AMENDMENTS TO ARTICLE XVII STANDARDS FOR SPECIFIC SPECIAL
LAND USES**

*ARTICLE XVII STANDARDS FOR SPECIFIC SPECIAL LAND USES IS HEREBY AMENDED
BY THE ADDITION OF A NEW §17.37 UTILITY-SCALE WIND ENERGY CONVERSION
FACILITIES, WHICH SHALL READ AS FOLLOWS:*

15 **Section 17.37 Utility-Scale Wind Energy Conversion Facilities**

A. Intent and Purpose: The intent and purpose of this section is to establish standards for the siting, installation, operation, repair, decommissioning, and removal of Utility-Scale Wind Energy Conversion Facilities; establish the process for the reviewing and permitting of such facilities; protect the health, safety, and welfare and quality of life of the general public; and ensure compatibility with land uses in the vicinity of the areas affected by such facilities; and comply with state law.

B. Locational Requirements: Utility-Scale Wind Energy Conversion Facilities are permitted by special use permit in the SFO Solar Farm Overlay District only.

25 **C. Site Requirements:** Utility-Scale Wind Energy Conversion Facility sites shall meet the site standards below.

1. Site Composition: The site may consist of a single participating property or multiple adjoining participating properties. All participating properties must have signed agreements to participate in the Utility-Scale Wind Energy Conversion Facility.
2. Lot Area: The site shall have a total net lot area of at least fifty (50) acres and no more than one thousand (1,000) acres.
3. Access: Utility-Scale Wind Energy Conversion Facilities shall meet the access standards below.
 - 35 a) Road or Easement: The site, all fenced compounds, and every wind turbine shall have direct access from a public road or an access easement with a maximum length of one thousand two hundred fifty (1,250) feet and width of at least thirty-three (33) feet.
 - b) Access Drive Material: Access drives shall have a hard surface or material that can pack hard that is sufficient to support fire apparatus and provide access at all times of the year.

- c) Access Drive Maintenance: Access drives must be maintained and kept accessible at all times. The applicant, owner, operator, and property owners shall be jointly and severally responsible for maintenance of the access roads.
- 5 d) Access Drive Design: Access drives shall be designed to reduce the impact on agricultural use of the land and the visual impact. Access drives shall not impede the natural flow of water.
- e) Gates and Doors: All access gates and doors to Utility-Scale Wind Energy Conversion Facility compounds, electrical equipment, and wind turbines shall be lockable and kept secured at all times when service personnel are not present.
- 10 f) Towers: Wind turbines shall not be climbable for a height of twenty (20) feet above the ground.

4. Setbacks: Wind turbines, fenced compounds, and electrical equipment shall meet the setback standards below.

- 15 a) Measurement: Setbacks from wind turbines shall be measured horizontally from the center of the tower base.
- b) Fences and Improved Areas: All fences and improved areas shall comply with the applicable setback for the underlying zoning district in which it is located.
- c) Fenced Compounds: All structures and improved areas located within the fenced compound shall be at least thirty (30) feet from the fence line.
- 20 d) Wind Turbines: Wind turbines shall meet the minimum setbacks in the table below.

Setback from	Distance
Non-participating property lines	2.5 times wind turbine height
Occupied buildings on non-participating properties	3 times the wind turbine height
Occupied buildings on participating properties	1.5 times the wind turbine height
Lakes, rivers, creeks and similar bodies of water	1,250 feet
Adjacent wind turbine	1.5 times wind turbine height
Road rights-of-way	1.5 times wind turbine height

- 5. Height: Wind turbines shall have a maximum finished height of three hundred (300) feet.
- 6. Lighting: Lighting for Utility-Scale Wind Energy System Facilities shall comply with §14.04(E) Lighting and the standards below.
- 25 a) Safe Operation: Lighting of the facility is limited to the minimum light necessary for safe operation.
- b) Federal Aviation Administration: Wind turbines shall only be illuminated to the minimum extent required by the Federal Aviation Administration.
- c) Nature of Light: Wind turbines shall not have strobe or pulse lighting.
- 30 d) Synchronized: All wind turbine lighting shall be synchronized to illuminate at the same time.

e) Shielded: Wind turbine lighting shall be shielded to the maximum extent possible to reduce glare and visibility from the ground.

7. Wind Turbines: Wind turbines within a Utility-Scale Wind Energy System Facility shall meet the design standards below.

5 a) Consistent: All wind turbines within the facility shall be of the same appearance.

b) Monopole: All wind turbines shall be of a monopole design.

10 c) Appearance: All wind turbines must be painted a non-obtrusive, neutral color, such as beige, gray, or off-white and must be non-reflective. The tower, nacelle, and blades must be the same color. Advertisements, graphics, or striping are not permitted on wind turbines.

d) Rotation: All wind turbine blades within a Utility-Scale Wind Energy Conversion Facility shall rotate in the same direction.

e) Good Condition: All wind turbines shall be maintained in good condition at all times, consistent with or better than industry standards.

15 f) Deicing: All wind turbines must be equipped with technology that automatically deices the turbine blades. The system must detect ice and heat the blades, such as through the use of built-in carbon heating mats or through the circulation of hot air. Turbine blades shall use stick-free surface coatings to the maximum extent practical.

20 g) Clearance: The swept area shall have a ground clearance of at least one hundred (100) feet and a clearance of at least one hundred (100) feet from any structure.

25 h) Braking: All wind turbines must be equipped with both an automatic and a manual braking or equivalent device, capable of stopping the wind turbine's operation in high winds with or without supervisory control and data acquisition control. The automatic braking system must be effective during complete grid power failure when the wind turbine is unable to communicate with supervisory control and data acquisition control or receive power.

i) Certification: All wind turbines shall be approved by Underwriters Laboratories, Det Norske Veritas, Germanischer Lloyd Wind Energie, or an equivalent third party.

30 8. Wiring: All power transmission, communication, or other lines, wires, or conduits within a Utility-Scale Wind Energy Conversion Facility shall meet the standards below.

a) Stray Voltage: All wiring shall comply with all applicable safety and stray voltage standards. Stray voltage originating from a Utility-Scale Wind Energy Conversion Facility shall not be detected on any participating or non-participating properties

35 1) Preconstruction Test: A preconstruction stray voltage test shall be conducted on all Michigan Department of Agriculture & Rural Development (MDARD) registered livestock facilities located within a one-mile radius of all participating properties. The tests shall be performed by an investigator approved by the Township at the applicant's expense.

40 2) Report: A report of the tests shall be provided to the Township and the owners of all property included in the study area.

3) Permission: The applicant shall seek written permission from property owners prior to conducting testing. Testing shall not be required on non-participating properties where the owners have refused to grant permission to conduct the testing. The owner of any participating property shall not refuse the stray voltage testing.

b) Underground: Wiring shall be underground, except for power switchyards or the area within a fenced substation. When the Township finds underground wiring is not feasible due to soil or water conditions, the above-ground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.

c) Depth: Wiring shall be located at a depth to prevent any damage from freezing or frost, to prevent interference with drain tiles, and at a depth that complies with current National Electrical Code standards.

d) Interference: Wiring shall be located and designed to not cause interference with wired or wireless communication systems.

e) Armoring: Concrete armoring techniques shall be used at every location where wiring crosses a county drain, watercourse, water line, or sewer line.

f) Marking: Permanent, visible markers or tracing wires shall be installed to indicate the location of wiring.

g) Drain Tiles: Wiring shall be located to minimize conflict with drain tiles.

9. Drain Tiles: Drain tiles within the Utility-Scale Wind Energy Conversion Facility shall be preserved and maintained throughout the construction, operation, and restoration periods, as described below.

a) Initial Inspection: Before the start of construction, all existing drain tiles within the facility and within any disturbed areas must be inspected by robotic camera with the imagery submitted to the Township for baseline documentation on tile conditions.

b) Continuing Inspection: Drain tiles must be re-inspected by robotic camera every three (3) years while the facility is in operation or when conditions indicate there may be damage to drain tiles with the imagery submitted to the Township.

c) Repairs: Damaged drain tiles shall be repaired within sixty (60) days of discovery. The Township shall be notified of any necessary repairs before the work commences and documentation of the repair work. Repairs necessary to address an emergency situation may be completed without prior notice to the Township.

d) Inspection: The Township reserves the right to have a Township official or agent present at the time of repair of the drainage tile system.

e) A report of the inspection results detailing status of all drains within the project area will be provided to the Township within thirty (30) days of completion of the physical inspection. These inspection reports may be shared with other township officials and agents.

10. Fire Suppression: A fire suppression system shall be provided that is specifically designed to immediately suppress and extinguish fires in any part of the Utility-Scale

Wind Energy Conversion Facility, including the wind turbines, electrical equipment, and transformers.

- a) Documentation: Documentation shall be provided confirming the effectiveness of the fire suppression system and the results of a third-party independent inspection, as approved by the Township, of the fire suppression system.
- b) Fire Authority: The fire suppression system shall be reviewed and approved by the Township's fire authority.
- c) Annual Inspection: The fire suppression system shall be inspected and approved yearly by a third-party independent inspecting company that is approved by the Township.

11. Groundcover: Utility-Scale Wind Energy Conversion Facilities shall include the installation of perennial ground cover vegetation that shall be maintained for the duration of operation until the site is decommissioned where appropriate within the site.

- a) PA 116 Lands: Land within the project area that is enrolled or bound by the Farmland Preservation Program must follow the Michigan Department of Agriculture and Rural Development (MDARD) Policy for Allowing Commercial Renewable Energy Development on PA 116 Lands.
- b) Non-PA 116 Lands: Land within the project area that is not enrolled or bound by the Farmland Preservation Program must provide at least one (1) of the following types of dual-use ground cover to promote ecological benefits:
 - 1) Pollinators: Pollinator habitat with a score of at least seventy-six (76) on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites (www.pollinators.msu.edu);
 - 2) Conservation Cover: Conservation cover focused on restoring native plants, grasses, or prairie with the aim of protecting specific species, such as bird habitat, or providing specific ecosystem services, such as carbon sequestration or improving soil health;
 - 3) Grazing: Incorporation of rotational livestock grazing and forage production as part of an overall vegetative maintenance plan; or
 - 4) Crops: Raising crops for food, fiber, or fuel and generating electricity within the site to maximize land use.
- c) Alternative Ground Cover: The Township may approve or require alternative ground cover upon finding it is not feasible to provide groundcover as defined above.
- d) Ground Cover Nature: All ground cover must be native plants with substantial root systems to support soil. Turf grass is not permitted as ground cover.
- e) Invasives and Noxious: Invasive species and noxious weeds are not permitted and must be removed in a timely manner.

12. Fencing: Utility-Scale Wind Energy Conversion Facility compounds shall be completely surrounded by a fence designed to prevent unauthorized access and to screen the facility.

- a) Height: The fence shall be at least seven (7) feet tall.

b) Fence Posts: Fence posts shall extend at least thirty-six (36) inches into the ground, and gate posts and corner posts shall have a concrete foundation.

c) Fence Type: The fence shall be a woven agricultural-style fence. The Township may require or allow durable green opaque material to be integrated into the fence if necessary for buffering or screening.

d) Gate Access: Gates shall be provided at all access points, unless otherwise permitted or approved. Gates for vehicular access shall be approved by the Fire Authority.

e) Gate Type: Gates shall be the same height and constructed of the same material as the fencing. Access, such as Knox box, shall be provided for emergency responders.

f) Wildlife Considerations: The Township may require or allow a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.

g) Alternative Fencing: Alternate fencing may be approved by the Township upon a finding that the alternative provides adequate access control and visual screening.

13. Signage: Advertising or non-project related graphics shall be prohibited. This exclusion does not apply to signs required by this Ordinance.

D. Buffering Requirements: Utility-Scale Wind Energy Conversion Facilities shall provide buffering described below.

1. Vegetative Buffer: There shall be a landscape buffer at least twenty (20) feet wide along the exterior of any fenced compound, whenever existing natural vegetation does not otherwise reasonably obscure the fenced compound.

a) Design: The buffer shall have two (2) rows of staggered evergreen trees planted twelve (12) feet apart or less trunk-to-trunk. The two (2) rows shall be ten (10) feet apart. The Township may consider an alternative landscape buffer, provided the alternative buffer provides adequate screening.

b) Vegetation Size: Plantings shall be at least eight (8) feet tall at time of planting, measured from the top of the root ball to the base of the leader, not including the height of the leader, and must be a species that can reasonably be expected to reach a height of ten (10) feet within three (3) growing seasons.

c) Maintenance: The trees may be trimmed but must maintain a height of at least eighteen (18) feet. Damaged or diseased trees shall be replaced at the next appropriate planting season.

d) Evergreen Species: Evergreen trees shall be Norway Spruce in the row closest to fence and Thuja Green Giant Arborvitae in the row away from the fence. The Township may require or consider alternative evergreen species, provided the alternative species are more desirable due to disease or pest or more appropriate for the local conditions.

2. Buffer Maintenance: Good arboricultural techniques shall be followed with respect to vegetation, including, but not limited to, proper pruning, proper fertilizing, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be

replanted in a manner consistent with these standards at the next appropriate planting season.

5 a) The Utility-Scale Wind Energy Conversion Facility will be inspected on at least an annual basis to insure compliance with the Buffer Maintenance provisions outlined above.

10 b) A compliant of violation of the Buffer Maintenance provision above must be addressed within thirty (30) days of the owner/operator of the Utility-Scale Wind Energy Conversion Facility with a proposed resolution of the complaint submitted to the Township.

E. Performance Standards: Utility-Scale Wind Energy Conversion Facilities shall meet the performance standards below.

15 1. Compliance: Utility-Scale Wind Energy Conversion Facilities shall be designed, constructed, operated, and maintained in compliance with all applicable provisions of local, state, and federal laws and regulations and industry standards.

2. Sound: The sound generated by a Utility-Scale Wind Energy Conversion Facilities must meet the sound standards of this Ordinance and the additional standards below.

20 a) Day Sound Level: The maximum sound level shall be forty (40) Dba Lmax, as measured at the project boundary and road rights-of-way between the hours of 7:00 am and 9:00 pm.

b) Night Sound Level: The maximum sound level shall be thirty-five (35) Dba Lmax, as measured at the project boundary and road rights-of-way between the hours of 9:00 pm and 7:00 am.

25 c) Pure Tone: If pure tones are produced, the maximum sound level shall be reduced by five (5) Dba.

d) Ambient Sound: If the ambient sound levels exceed these standards, the maximum sound level shall be the ambient sound level plus five (5) Dba.

30 e) Inverter Sound Screening: A sound barrier of a solid decorative masonry wall or evergreen tree berm, with trees spaced not less than ten (10) feet apart, must be constructed to reduce noise levels surrounding all inverters. Berms must be within ten (10) feet of all inverters and must be at least as tall as all inverters but cannot be more than three (3) feet taller than the height of the adjacent inverters.

35 f) Continued Compliance: The sound level by a Utility-Scale Wind Energy Conversion Facilities must be inspected every three (3) years, at the operator's expense, by an auditory expert to ensure compliance with applicable sound standards.

3. Flicker and Glint: Reasonable design and operation shall be used to minimize or mitigate flicker and blade glint impacts on non-participating habitable buildings, public roads, and all road intersections.

40 4. Airport Impact: Utility-Scale Wind Energy Conversion Facilities shall not create hazardous conditions for airports.

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- a) Adverse Impacts: A study shall determine if there are any potential adverse effects on any registered airfield within ten (10) miles of the project. Effects noted, but not exclusively, should include any possible decreased safety and utility.
 - b) Determination of No Hazard: Utility-Scale Wind Energy Conversion Facilities must obtain a Determination of No Hazard from the Federal Aviation Administration.
 - c) Timing: The Determination of No Hazard must be obtained before breaking ground on any portion of the Utility-Scale Wind Energy Conversion Facility. An airport impact study must be submitted to the Township. Safety and Utility Impacts: Utility-Scale Wind Energy Conversion Facilities that impact safety or utility of any registered airfield shall not be permitted.
5. Reports: In addition to other reports identified in this Ordinance, the owner or operator shall submit the following reports to the Township during the operation of Utility-Scale Wind Energy Conversion Facilities.
- a) Annual Report: An annual report shall be provided to the zoning administrator showing continuity of operation.
 - b) Operation. A report shall be provided to the zoning administrator if the Utility-Scale Wind Energy Conversion Facility or any of its components are no longer being used.
 - c) Incident Report: Reports shall be submitted if there is a major incident at the Utility-Scale Wind Energy Facility that did or could have caused harm to life or property, including calls for service from emergency responders. The report shall identify the cause of the incident and corrective action to prevent future incidents of that nature.
6. Safety: Utility-Scale Wind Energy Conversion Facilities shall be subject to the safety standards below.
- a) Warning Signs: The manufacturers or installer's identification and appropriate warning signs shall be posted on or near each wind turbine in a clearly visible manner.
 - b) Fire Suppression and Data Sheets: Fire suppression plans and Safety Data Sheets shall be kept onsite and be accessible for emergency responders.
 - c) Safety Manual: An unredacted copy of the manufacturer's safety manual for each component of the Utility-Scale Wind Energy Conversion Facility, without distribution restraints, will be provided before construction commences. These will be kept at the Township Hall and other locations deemed necessary by the Township or local first responders. The manual should include standard details for an industrial site such as materials, chemicals, fire, access, and safe distances during a Utility-Scale Wind Energy Conversion Facility failure, processes in emergencies, etc.
7. Interference: Utility-Scale Wind Energy Conversion Facilities must not interfere with any radio, television, or other communication systems. The applicant or operator must resolve any known interference immediately and provide proof that the interference has been resolved within ninety (90) days.
8. Complaint Resolution: Utility-Scale Wind Energy Conversion Facilities shall provide a complaint resolution process, as described below.

- a) Signs: Signs with contact information to report complaints related to the Utility-Scale Wind Energy Conversion Facility shall be posted throughout the project area. Signs shall be posted before construction begins and maintained until decommissioning is complete.
- 5 b) Resolution Options: Any resolution shall include lawful and reasonable solutions consistent with this Ordinance.
- c) Contact: A twenty-four (24) hour, toll-free number shall be established and maintained by the owner or operator to receive complaints. Additional reporting methods, such as postal mail or electronic mail, may also be used.
- 10 d) Log: A log shall be kept by the owner or operator of all complaints received and documentation of the resolution. The log shall be available for review by Township Officials.
- e) Notification: The Township shall receive notification of all complaints received. An annual report shall be submitted to the Township that details all complaints received, the status of complaint resolution, and actions taken to resolve complaints.
- 15 f) Resolution Period: Complaints for hazardous conditions shall be resolved within twelve (12) hours or as soon as reasonably possible. Other complaints shall be resolved within ten (10) business days.
- g) Adjudication: The operator or its assigns reserve the right to adjudicate any claims, including residential claims, in a court of competent jurisdiction.
- 20 9. Insurance and Performance Guarantees: Utility-Scale Wind Energy Conversion Facilities shall provide insurance and performance guarantees. These are in addition to other insurance or performance guarantees required by this Ordinance or other entities.
- a) General Liability Insurance: Utility-Scale Wind Energy Conversion Facilities shall have and maintain general liability insurance of at least ten million (\$10,000,000) dollars. The Township may require a higher amount for larger projects and may allow for a lesser amount for smaller projects upon a finding that the alternate amount is more consistent with the likely risk.
- 25 b) General Maintenance Performance Guarantee: A General Maintenance Performance Guarantee shall be provided before construction commences to guarantee all aspects of this Ordinance are met at all times during the construction and operation of the Utility-Scale Wind Energy Conversion Facility. At the time of the application, the applicant shall submit two (2) third-party contractor bids for construction of all fencing, landscaping, and drainage improvements associated with the Utility-Scale Wind Energy System Facility, and the performance guarantee shall be the higher of the two (2) bids. The Township may use the performance guarantee to repair any landscaping, fencing, drainage infrastructure (including drainage tiles), and/or to correct any ongoing violation of this Ordinance in the event that the site improvements for the Utility-Scale Wind Energy Conversion Facility are not maintained or the Utility-Scale Wind Energy Conversion Facility fails to make operational changes to correct an operational violation.
- 30 c) Road Performance Guarantee: A road performance guarantee shall be provided before construction commences in a form acceptable to the Township, such as: a) a surety bond from a surety listed as acceptable on the Federal Surety Bond circular
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570 of the U.S. Department of Treasury; or b) an acceptable irrevocable letter of credit; or c) an escrow account established in a financial institution licensed in the State of Michigan. A construction surety bond shall not be accepted. The amount of the performance guarantee shall be at least one million two hundred fifty thousand dollars (\$1,250,000), but this amount may be increased if the third-party consultant determines the amount needed for road repairs is greater than this amount. The performance guarantee shall only be released, in whole or part, when the Township Board, in consultation with the Livingston County Road Commission and Michigan Department of Transportation, as applicable, and the third-party inspector, determines that all required road work has been completed and approved by the affected road agencies. The Township may waive or reduce the requirement for this performance guarantee if the road agencies collect a performance guarantee.

d) Complaint Inspection Escrow: An escrow account, funded by the applicant, owner, or operator, to be used for investigation of complaints shall be established before construction commences. The escrow account shall be used by the Township for investigation of complaints, including reasonable reimbursement of qualified third-party agents, for, but not limited to, glare, stray voltage, sound, and signal interference. The escrow account shall be kept with the Township Treasurer. The initial escrow account shall be in the amount of fifteen thousand dollars (\$15,000). When the escrow account balance is below five thousand dollars (\$5,000), the Township shall notify the responsible party, who must replenish the escrow account to the amount of fifteen thousand dollars (\$15,000) within a period of forty-five (45) calendar days.

10. Dust Control: Reasonable dust control measures shall be taken during construction, operation, and decommissioning.

11. Plants and Grasses: Plants or grasses not part of the buffer area shall be maintained at a height of twelve (12) inches or less. The Township may approve a taller height upon a finding that it will not result in a nuisance.

12. Wildlife: Utility-Scale Wind Energy Conversion Facilities shall be designed, sited, and operated in a manner to minimize impact on wildlife.

a) Wildlife Impact Analysis: The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on wildlife and endangered species. At a minimum, the analysis shall include a thorough review of existing information regarding species and potential habitats in the vicinity of the project area. Where appropriate, surveys for bats, raptors, or general avian use should be conducted. The analysis shall include the potential effects on species listed under the federal Endangered Species Act and Michigan's Endangered Species Protection Law.

b) Adverse Impacts: Appropriate measures shall be taken to minimize, eliminate, or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

c) Special Scrutiny: Sites requiring special scrutiny include wildlife refuges, other areas where birds are highly concentrated, bat hibernacula, wooded ridge tops that attract wildlife, sites that are frequented by federally- or state-listed endangered species of

birds and bats, significant bird migration pathways, and areas that have landscape features known to attract large numbers of raptors.

- d) US Fish and Wildlife Service: The applicant shall follow all pre-construction and post-construction recommendations of the United States Fish and Wildlife Service.
- e) Post-Construction Mortality Study: A post-construction wildlife mortality study may be required for the proposed Utility-Scale Wind Energy Conversion Facility. If such a study is determined unnecessary by the owner, operator or property owner, the reasons why such a study does not need to be conducted shall be submitted to the Township. The company to complete the Post-Construction Mortality Study shall be jointly chosen by the Township and property owner. The cost of the Post-Construction Mortality Study shall be paid for by the owner, operator, and property owner. The final report of the Post Construction Mortality Study shall be submitted to the Township prior to construction of the Utility-Scale Wind Energy Conversion Facility. All above-ground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.
- f) All above-ground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.

13. Environment: Utility-Scale Wind Energy Conversion Facilities shall be designed, sited, and operated to minimize impact on the environment.

- a) Environmental Impact Analysis: The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on the natural environment including, but not limited to, wetlands and other fragile ecosystems, historical and cultural sites, and antiquities.
- b) Adverse Impacts: Appropriate measures shall be taken to minimize, eliminate, or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.
- c) Environmental Laws: Utility-Scale Wind Energy Conversion Facilities shall comply with applicable parts of the Michigan Natural Resources and Environmental protection Act (Act 451 of 1994, MCL 324.101 et seq.), Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.), Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.), Part 303 Wetlands (MCL 324030301 et seq.), Part 323 Shoreland Protection and Management (MCL 324.32301 et seq.), Part 325 Great Lakes Submerged Lands (MCL 324.32501 et seq.), and Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.).
- d) Containment System: A containment system shall surround any transformers in case of hazardous waste or oil spills.
- e) Removal: All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.
- f) Responsibility: The Utility-Scale Wind Energy Conversion Facility owner, operator, and property owner shall be jointly and severally responsible for mitigating erosion, flooding, and all other environmental impacts resulting from the Facility.

14. Emergency Action Plan: Utility-Scale Wind Energy Conversion Facilities shall have an emergency action plan to identify actions to be taken in event of an emergency.

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- a) The Emergency Action Plan shall jointly reviewed and approved by the Howell Fire Department and Livingston County Emergency Management Director before the operation of the Utility-Scale Wind Energy Conversion Facility can begin commercial operation. The Emergency Action Plan shall be reviewed every three years by the Howell Fire Department and the Livingston County Emergency Management Director. All approvals or reviews of the Emergency Action Plan shall be provided to the Township. The cost for any review shall be the responsibility, jointly and severally, of the Utility-Scale Solar Facility owner or operator.
 - b) Fire Suppression: The Emergency Action Plan must include a fire suppression plan, including the technology to be used.
 - c) Special Equipment and Training: The Emergency Action Plan shall identify special equipment and training that is required for emergency response to the Utility-Scale Wind Energy Conversion Facility.
 - d) The cost of purchasing the required special equipment for fire protection will be the responsibility, jointly and severally, of the owner and operator of Utility-Scale Wind Energy Conversion Facility.
 - e) Clean-up: The emergency action plan must include plans for immediate cleanup and long-term aftermath efforts following an emergency.
 - f) Emergency Training: Before the Utility-Scale Wind Energy Conversion Facility is operational, the owner or operator of the Utility-Scale Wind Energy Conversion Facility must provide the necessary training, equipment, or agreements specified in the emergency action plan to the Township, Howell Fire Department, Livingston County Emergency Response Director or any other emergency personnel at the local, state or federal level. All training must be consistent with current industry standards.
 - g) The cost of the required training for the fire protection personnel shall be the responsibility, jointly and severally, of the owner and operator of the Utility-Scale Wind Energy Conversion Facility.
 - h) Once a year a fire suppression training shall be held with the cost of such training being the responsibility, jointly and severally, of the owner and operator of the Utility-Scale Wind Energy Conversion Facility.
 - i) Public Record: The Emergency Action Plan will be a public record. Copies of the most up to date Emergency Action Plan will be maintain at all times at the Utility-Scale Wind Energy Conversion Facility, the Marion Township Hall, the Howell Fire Department substation located at the Marion Township Hall, and at the office of the Livingston County Emergency Response Director. This plan shall be available for public inspection if requested.

F. General Provisions: Utility-Scale Wind Energy Conversion Facilities shall be subject to the general provisions below.

1. **Damage Repair:** The owner, operator, and property owner shall be jointly and severally responsible for making repairs to any public roads, drains, and infrastructure damaged by the construction of, use of, maintenance of, or damage to the Utility-Scale Wind Energy System Facility.
2. **Mixed Facilities:** Utility-Scale Wind Energy Conversion Facilities may be co-located with other renewable energy facilities, such and Utility Battery Energy Storage Facilities or Utility Solar Farms. Review and approval are required for each use.
3. **As-Builts:** The applicant shall submit an as-built drawing with dimensions relative to property lines of all new structures including turbines and buried cable both inside and outside fenced areas upon completion and before any power is supplied to the grid. The as-built drawing shall be a scale of 1" = 200 feet.
4. **Repowering or Modifications:** Any modifications of an approved site plan or special use permit that are made after the initial date of approval, including, but not limited to, an expansion of project, repowering, reconfiguration, technological updates, shall require new site plan and special use permit applications. Any changes of the approved site plan or special use permit will be subject to this Ordinance as it exists at time of this new application.
5. **Transfer or Sale:** In the event of a transfer or sale of a Utility-Scale Wind Energy System Facility, the new owner or operator must notify the Township within thirty (30) days, and the zoning administrator shall administratively amend the permit to name the new owner or operator. Upon transfer or sale, the cash bond shall be transferred to the new owner or operator and shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security bond adjusted to account for the new estimate.

G. Decommissioning, Abandonment, and Restoration: Following the operational life or abandonment of a Utility-Scale Wind Energy Conversion Facility, the site shall be decommissioned and restored as outlined below.

1. **Decommissioning Plan:** The applicant shall have a third-party qualified professional, acceptable to the Township, prepare a decommissioning plan. The decommissioning plan shall be written to provide security to the township for one hundred twenty-five percent (125%) of the cost to remove and dispose of all panels, wiring, and restoration of the land to its original conditions. The decommissioning security shall be paid in cash to the Township.
 - a) **Anticipated Life:** The decommissioning plan shall describe the anticipated life span of the Utility-Scale Wind Energy Conversion Facility and its components.
 - b) **Decommissioning Costs:** The decommissioning plan shall provide a probable cost estimate for decommissioning, including current cost and cost at the time of decommissioning.
 - c) **How Paid:** The decommissioning plan shall provide a description of how decommissioning costs will be paid.
 - d) **Regular Updating:** The decommissioning plan shall be updated on a regular, period basis of at least once every three (3) years. Additional security may be required to

account for increased anticipated decommissioning costs during the preceding three (3) years.

2. Abandonment: Utility-Scale Wind Energy Conversion Facilities or any components that are not operated for a continuous period of six (6) months shall be considered abandoned, whether or not there is an intent to continue the use, and shall be removed or restored to operation. An extension may be granted by the Township upon finding that the delay does not create a hazardous condition and the applicant has demonstrated a good-faith effort to continue operation.
3. Damage: Any Utility-Scale Wind Energy Conversion Facility components that are damaged shall be replaced or removed within seven (7) days. An extension may be granted by the Township upon finding that it is not feasible to replace or remove the component in that period and that the delay does not create a hazardous condition.
4. Unsafe: Any unsafe components shall be removed or made safe within a reasonable period as determined by the Township.
5. Compaction Prevention: All abandonment and decommissioning work must be done when soil is dry or frozen to prevent compaction.
6. Chemical Analysis and Boring: A chemical analysis and boring of the soil, as recommended by the Township engineer shall be performed before any decommissioning work begins with the results compared to the baseline soil chemical analysis baseline test results obtained before construction of the Utility-Scale Wind Energy Conversion Facility.
 - a) Chemical Levels: All levels of any chemical entity found in the soil chemical analysis must be equal to or are lower than the levels of all chemical entities determined in the baseline testing performed prior to construction. If a new chemical entity, either organic or inorganic compounds, are identified in the soil chemical analysis, its level must be below established federal and state government levels for hazardous materials in soils for that chemical entity.
 - b) Report: A report of the soil chemical analysis must be provided to the Township within seven (7) days. If any chemical entity, organic or inorganic compounds, are above established federal and state government levels for hazardous materials in soils, the report must be submitted to the appropriate Federal and State regulatory agencies within seven (7) days of receiving the testing report showing a violation.
 - c) Violation Resolution: Once a violation has been determined and finalized, a reclamation plan for the contaminated soil must be developed and implemented to remove the contaminated soil from the Utility-Scale Wind Energy Conversion Facility site. The reclamation plan must meet all Federal and State regulations for the reclamation of a contaminated site. The plan must be approved by the Township Board and the Township engineer. Once the contaminated soil has been removed and replaced with uncontaminated soil, a final soil chemical analysis shall be performed to confirm the Utility-Scale Wind Energy Conversion Facility site soils have been returned to its original state for levels of organic and inorganic compounds that existed before construction.
 - d) Cation Exchange Capacity: A Cation Exchange Capacity soil test shall also be required at the completion of the decommission process. The company to complete this study will be determined jointly by the Township and the property owner. The

final report of this test shall be submitted to the Township Supervisor, Zoning Administrator, Township Engineer, and property owner for review and comment.

5 e) Violation Remediation: Any negative variations from the preconstruction soil testing must be remedied and the final results of the testing approved by the Township engineer and the Township Board.

7. Ground Restoration: The ground must be restored to its original topography and land must be restored to a depth of three (3) feet below grade within three hundred sixty-five (365) days of abandonment or decommissioning. An extension may be granted by the Township if a good-faith effort has been demonstrated and any delay is not the result of actions or inaction of the operator. An alternative topography can be approved by the Township as part of the original site plan review or later as part of decommissioning.

8. Land Balancing: If land balancing is required, all top soil will be saved within the project site and spread evenly over balanced area.

9. Township Action: The Township may remove any abandoned or unsafe Utility-Scale Wind Energy Conversion Facility components that are not removed or restored within the allowed time. The owner, operator, and property owner shall be jointly and severally responsible for any costs.

10. Attorney Costs: The owner, operator, and property owner shall be jointly and severally responsible for the payment of all attorney fees and other costs incurred by the Township in the event that the Township has to enforce removal.

11. Vegetation: Disturbed land shall be revegetated at the next appropriate planting season.

12. Disposal: It is the responsibility, jointly and severally, of the owner, operator, and property owner of Utility-Scale Wind Energy Conversion Facility to remove all structures, equipment, and waste from the site and disposed of properly. All costs for this disposal of structures, equipment, and waste shall be the total responsibility, jointly and severally, of the Utility-Scale Wind Energy Conversion Facility owner, operator and property owner.

13. Compliance with the above provisions of Section G. Decommissioning, Abandonment, and Restoration, shall be determined by review of all actions, documents and reports of said decommissioning by the Board of Trustees of Marion Township.

H. Application Materials: Applications for Utility-Scale Wind Energy Conversion Facilities must submit the following additional materials with the special use permit application. These materials are in addition to information required for site plan and special use permit applications.

1. Identification: The name and address in full of the applicant, developer, owner, operator, and property owners, a statement that the applicant is the owner involved in the application and any additional contact information shall be submitted. Each application for a Wind Energy System Facility shall also be dated to indicate the date the application is submitted to Marion Township.

2. Application Dating: Each application for a Utility-Scale Wind Energy Conversion Facility shall indicate the date the application is received by the Township.

3. Purchase Agreements or Leases: Copies of all purchase agreements or leases for all participating properties that confirm the applicant has the permission of the participating

property owners to apply for the necessary approvals and permits for construction and operation of a Utility-Scale Wind Energy Conversion Facility.

4. Project Description: A general description of the proposed project, including name-plate generating capacity and an anticipated construction schedule shall be submitted.
5. Wind Turbines and Equipment: A complete description of the proposed technology to be installed at the Wind Energy System Facility to include type of wind turbine and its manufacturer, electrical generation capacity of each wind turbine, total number of wind turbines to be installed, and average distance between each wind turbine shall be submitted.
6. Conceptual Plan: A graphical computer-generated depiction of how the Utility-Scale Wind Energy Conversion Facility will appear from all directions shall be submitted.
7. Documentation: A complete set of photos and video of the entire development, including construction access roads, area as it exists before the application date shall be submitted.
8. Operation: A description of operations, including anticipated regular and unscheduled maintenance and the hours of the day maintenance will take place shall be submitted.
9. Power Purchase Agreement: A copy of the power purchase agreement or other written agreement with an electric utility showing approval of an interconnection with the proposed Utility-Scale Wind Energy Conversion Facility shall be submitted.
10. Insurance: Proof of the general liability insurance to cover the Utility-Scale Wind Energy Conversion Facility, the Township, and the participating property owners shall be submitted.
11. Certifications: Certification shall be submitted that the Utility-Scale Wind Energy Conversion Facility will comply with all applicable state and federal laws and regulations in effect at the time the application is submitted, including, but not limited to: Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); and Part 365, Endangered Species Protection (MCL324.36501 et. seq.).
12. Farmland Preservation Approval: Utility-Scale Wind Energy Conversion Facilities with any participating properties that are enrolled in the Michigan Farmland Preservation program must provide confirmation of approval from the Michigan Department of Agriculture to locate the facility on the property.
13. Road Agencies: Proof of approval or conditional approval by any road agency from which the Utility-Scale Wind Energy Conversion Facility will have access or whose roads will be used as a construction or maintenance route shall be submitted.
14. Drain Commission: Proof of approval or conditional approval by and the Livingston County Drain Commission for any Utility-Scale Wind Energy Conversion Facility that has participating properties with a county drain or propose improvements within a county drain easement.
15. Manufacturers' Safety Data Sheet(s): Documentation include the type and quantity of all materials used in the operation of all equipment shall be submitted.

- 16. Wildlife Impact: Copy of the wildlife impact analysis shall be submitted.
- 17. Environmental Impact: Copy of the environmental impact analysis shall be submitted.
- 18. Soil Chemical Analysis: A chemical analysis and borings including a Cation Exchange Capacity (CEC) of the soil involved in the project must be completed as recommended by the Township engineer.
- 19. Complaint Resolution Protocol: Copy of complaint resolution protocol shall be submitted.
- 20. Decommissioning Plan: Copy of the decommissioning plan shall be submitted.
- 21. Emergency Action Plan: Copy of the emergency action plan shall be submitted for review by the Township, Howell Fire Department, and the Livingston County Emergency Management Director.
- 22. Indemnification: An attestation that the applicant, owner, operator, and property owners will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-Scale Wind Energy Conversion Facility, which is subject to the Township's review and approval, shall be submitted.
- 23. Right-to-Enter: Submission of an application for a Utility-Scale Wind Energy Conversion Facility grants the Township and its agents the right to enter the facility and any participating property for inspection of the Utility-Scale Wind Energy Conversion Facility at any reasonable time. The Township may hire a consultant to assist with any such inspections at a reasonable cost to be charged to the operator.
- 24. Additional Information: Any additional information, studies, or documentation requested by the Township or its agents that are deemed necessary to determine compliance with this Ordinance and other applicable laws and regulations.

I. Utility-Scale Wind Energy Conversion Facilities under PA 233: On or after November 29, 2024, once PA 233 of 2023 is in effect, the following provisions apply to Utility-Scale Wind Energy Conversion Facilities with a nameplate capacity of at least one hundred (100) megawatts. These provisions below shall control to the extent that they conflict with the other provisions of §17.37 to Utility-Scale Wind Energy Conversion Facilities. This subsection does not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect. This subsection does not apply to Utility-Scale Wind Energy Conversion Facilities with a nameplate capacity of less than 100 megawatts. All provisions in §17.37 Utility-Scale Wind Energy Conversion Facilities that do not conflict with this subsection remain in full force and effect.

- 1. Setbacks: Utility-Scale Wind Energy Conversion Facilities must comply with the minimum setback requirements in the table below, with setback distances measured from the center of the base of the wind tower:

Setback Description	Setback Distance
Occupied community buildings and residences on nonparticipating properties	2.1 time the maximum wind turbine height (see definitions) to the nearest point on the outside wall of the structure

Residences and other structures on participating properties	1.1 times the maximum blade tip height to the nearest point on the outside wall of the structure
Nonparticipating property lines	1.1 times the maximum blade tip height
Overhead communication and electric transmission, not including utility service lines to individual houses or outbuildings	1.1 times the maximum blade tip height to the center line of the easement containing the overhead line
Public road right-of-way	1.1 times the maximum blade tip height to the center line of the public road right-of-way

5 2. Shadow Flicker. Each wind tower must be sited such that any occupied community building or nonparticipating residence will not experience more than 30 hours per year of shadow flicker under planned operating conditions as indicated by industry-standard computer modeling.

3. Height. Each Utility-Scale Wind Energy Conversion Facility blade tip must not exceed the height allowed under the Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR part 77.

10 4. Radar Interference. The Utility-Scale Wind Energy Conversion Facility must meet any standards concerning radar interference, lighting (subject to subparagraph (5)), or other relevant issues as determined by the Township.

15 5. Lighting: The Utility-Scale Wind Energy Conversion Facility must be equipped with a functioning light-mitigating technology. To allow proper conspicuity of a wind turbine at night during construction, a turbine may be lighted with temporary lighting until the permanent lighting configuration, including the light-mitigating technology, is implemented. The Township may grant a temporary exemption from the requirements of this subparagraph if installation of appropriate light-mitigating technology is not feasible. A request for a temporary exemption must be in writing and state all of the following:

- i. The purpose of the exemption.
- ii. The proposed length of the exemption.
- iii. A description of the light-mitigating technologies submitted to the Federal Aviation Administration.
- iv. The technical or economic reason a light-mitigating technology is not feasible.
- v. Any other relevant information requested by the Township.

25 ~~2. Utility-Scale Wind Energy Conversion Facilities must implement dark sky-friendly lighting solutions.~~

30 ~~3-6.~~ Sound: Utility-Scale Wind Energy Conversion Facilities must not generate a maximum sound in excess of fifty-five (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.

35 ~~4-7.~~ Environmental Regulations: Utility-Scale Wind Energy Conversion Facilities must comply with applicable state or federal environmental regulations.

5 ~~5-8.~~ Host Community Agreement: The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Utility-Scale Wind Energy Conversion Facility owner must pay the Township two thousand dollars (\$2,000.00) per megawatt of nameplate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or other projects as agreed to by the Township and the applicant.

10 ~~6-9.~~ PA 233 Requirements: The Utility-Scale Wind Energy Conversion Facility shall be subject to the other applicable rules and regulations outlined in PA 233 of 2023 and by the Michigan Public Service Commission.

15 ~~7-10.~~ Applicant's Option: An applicant can elect at the time of application to have their application for a Utility-Scale Wind Energy Conversion Facility processed using the other provisions of §17.37 Utility-Scale Wind Energy Conversion Facilities, even if PA 233 of 2023 is in full effect.

SECTION 2. AMENDMENT OF ARTICLE III DEFINITIONS

20 §3.02 DEFINITIONS ARE HEREBY AMENDED TO ADD THE FOLLOWING DEFINITIONS, TO BE ADDED IN ALPHABETICAL ORDER, WHICH SHALL READ AS FOLLOWS:

25 **Cation Exchange Capacity (CEC):** The total capacity of a soil to hold exchangeable cations. CEC is an inherent soil characteristic and is difficult to alter significantly. It influences the soil's ability to hold onto essential nutrients and provides a buffer against soil acidification.

Inorganic Compound: Any substance in which two or more chemical elements (usually other than carbon) are combined, nearly always in definite proportions, either naturally occurring or manmade.

30 **Organic Compound:** A large class of chemical compounds in which one or more atoms of carbon are covalently linked to atoms of other elements, most commonly hydrogen, oxygen, or nitrogen, either naturally occurring or manmade.

Swept Area: The area that is swept by the wind turbine blade.

35 **Utility-Scale Wind Energy Conversion Facility:** A facility with one (1) or more wind turbines that convert wind energy to electrical energy, including all appurtenant structures and infrastructure, that has a nameplate capacity of at least one hundred (100) kilowatts.

Wind Turbine Height: The vertical distance between the ground and the highest point of the swept area.

SECTION 3. AMENDMENTS OF ARTICLE XII SOLAR FARM OVERLAY DISTRICT

§12.01(B) PERMITTED ACCESSORY USES IS HEREBY AMENDED TO ADD A NEW §12.01(B)(2), WHICH SHALL READ AS FOLLOWS:

2. Accessory uses or structures clearly incidental to the operation of an approved Utility-Scale Wind Energy Conversion Facility.

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§12.01(C) USES PERMITTED BY SPECIAL USE PERMIT IS HEREBY AMENDED TO ADD A NEW §12.01(C)(2) [SIC], WHICH SHALL READ AS FOLLOWS:

3. Utility-Scale Wind Energy Conversion Facilities.

10 **SECTION 4. AMENDMENT OF TABLE OF CONTENTS**

THE TABLE OF CONTENTS IS HEREBY AMENDED FOR CONSISTENCY WITH THE ABOVE AMENDMENTS AND TO ACCOMMODATE REPAGINATION.

SECTION 5. SEVERABILITY AND VALIDITY

- 15 If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

SECTION 6. REPEALER

- 20 All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

SECTION 7. EFFECTIVE DATE.

This Ordinance takes effect upon the expiration of 7 days after publication as required by MCL 125.3401(7).

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[26174:00003:201253560-1](#)

MARION TOWNSHIP
ZONING ORDINANCE TEXT AMENDMENT
UTILITY-SCALE SOLAR ENERGY FACILITIES

5 AN AMENDMENT TO THE MARION TOWNSHIP ZONING ORDINANCE TO ESTABLISH
SPECIFIC STANDARDS FOR UTILITY-SCALE SOLAR ENERGY FACILITIES; ADD
DEFINITIONS RELATED TO UTILITY-SCALE SOLAR ENERGY FACILITIES; AND AMEND THE
TABLE OF CONTENTS ACCORDINGLY.

10 **SECTION 1. AMENDMENTS TO ARTICLE XVII STANDARDS FOR SPECIFIC SPECIAL
LAND USES**

15 *ARTICLE XVII STANDARDS FOR SPECIFIC SPECIAL LAND USES IS HEREBY AMENDED
BY THE REPLACEMENT OF THE CURRENT §17.35 UTILITY SOLAR ENERGY FACILITIES
WITH A NEW §17.35 UTILITY-SCALE SOLAR ENERGY FACILITES, WHICH SHALL READ AS
FOLLOWS:*

Section 17.35 Utility-Scale Solar Energy Facilities

20 **A. Intent and Purpose:** The intent and purpose of this section is to establish standards for the
siting, installation, operation, repair, decommissioning, and removal of Utility-Scale Solar
Energy Facilities; establish the process for the reviewing and permitting of such facilities;
protect the health, safety, welfare and quality of life of the general public; ensure
compatibility with land uses in the vicinity of the areas affected by such facilities; and comply
with state law.

B. Locational Requirements: Utility-Scale Solar Energy Facilities are subject to the locational
requirements below.

- 25 1. Utility-Scale Solar Energy Facilities are permitted by special use permit in the SFO Solar
Farm Overlay District only.
2. Spacing: Utility-Scale Solar Energy Facilities shall be at least two thousand five hundred
(2,500) feet from any adjacent, existing Utility-Scale Solar Energy Facility.

30 **C. Site Requirements:** Utility-Scale Solar Energy Facility sites shall meet the site standards
below.

- 35 1. Site Composition: The site may consist of a single participating property or multiple
adjoining participating properties. All participating properties must have signed
agreements to participate in the Utility-Scale Solar Energy Facility.
2. Lot Area: The site shall have a total net lot area of at least forty (40) acres and no more
than one thousand (1,000) acres.
3. Access: Utility-Scale Solar Energy Facilities shall meet the access standards below.
- 40 a) Road or Easement: The site, all fenced compounds, and every solar array shall
have direct access from a public road or an access easement with a maximum
length of one thousand two hundred fifty (1,250) feet and width of at least thirty-three
(33) feet.

- b) Access Drive Material: Access drives shall have a hard surface or material that can pack hard that is sufficient to support fire apparatus and provide access at all times of the year.
- 5 c) Access Drive Maintenance: Access drives must be maintained and kept accessible at all times. The applicant, owner, operator, and property owners shall be jointly and severally responsible for maintenance of the access roads.
- d) Access Drive Design: Access drives shall be designed to reduce the impact on agricultural use of the land and the visual impact. Access drives shall not impede the natural flow of water.
- 10 e) Gates and Doors: All access gates and doors to Utility-Scale Solar Energy Facility compounds and electrical equipment shall be lockable and kept secured at all times when service personnel are not present.
- 4. Setbacks: Solar panels, fenced compounds, and electrical equipment shall meet the setback standards below.
- 15 a) Measurement: Setbacks from solar panel arrays shall be measured horizontally from the edge of the array.
- b) Fences and Improved Areas: All fences and improved areas shall comply with the applicable setback for the underlying zoning district in which it is located.
- 20 c) Fenced Compounds: All structures and improved areas located within the fenced compound shall be at least thirty (30) feet from the fence line.
- d) Solar Energy Systems: Solar energy systems and related accessory structures shall meet the minimum setbacks in the table below.

Setback from	Distance
Non-participating property lines	100 feet
Occupied buildings on non-participating properties	500 feet
Occupied buildings on participating properties	500 feet
Lakes, rivers, creeks, and similar bodies of water and Wellhead Protection Areas	100 feet
Road rights-of-way	100 feet

- 25 5. Height: Solar panel components must not exceed a maximum height of twenty-five (25) feet above ground when the arrays are at full tilt.
- 6. Lighting: Lighting shall be limited to inverter or substation locations only and shall comply with §14.04(E) Lighting.
- 7. Solar Arrays: Solar Arrays within a Utility-Scale Solar Energy Facility shall meet the design standards below.
- 30 a) Consistent: All solar arrays within the facility shall be of the same appearance.
- b) Good Condition: All solar arrays shall be maintained in good condition at all times, consistent with or better than industry standards.

- c) Certification: Solar array components shall be approved by the Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), International Electrotechnical Commission (IEC), or other similar certification organization.
- 5 8. Wiring: All power transmission, communication, or other lines, wires, or conduits within a Utility-Scale Solar Energy Facility shall meet the standards below.
- a) Stray Voltage: All wiring shall comply with all applicable safety and stray voltage standards. Stray voltage originating from a Utility-Scale Solar Energy Facility shall not be detected on any participating or non-participating properties.
- 10 1) Preconstruction Test: A preconstruction stray voltage test shall be conducted on all Michigan Department of Agriculture & Rural Development (MDARD) registered livestock facilities located within a one-mile radius of all participating properties. The tests shall be performed by an investigator approved by the Township at the applicant's expense.
- 15 2) Report: A report of the tests shall be provided to the Township and the owners of all property included in the study area.
- 20 3) Permission: The applicant shall seek written permission from property owners prior to conducting testing. Testing shall not be required on non-participating properties where the owners have refused to grant permission to conduct the testing. The owner of any participating property shall not refuse the stray voltage testing.
- b) Underground: Wiring shall be underground, except for power switchyards or the area within a fenced substation. When the Township finds underground wiring is not feasible due to soil or water conditions, the above-ground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.
- 25 c) Depth: Wiring shall be located at a depth to prevent any damage from freezing or frost, to prevent interference with drain tiles, and at a depth that complies with current National Electrical Code standards.
- 30 d) Interference: Wiring shall be located and designed to not cause interference with wired or wireless communication systems.
- e) Armoring: Concrete armoring techniques shall be used at every location where wiring crosses a county drain, watercourse, water line, or sewer line.
- 35 f) Marking: Permanent, visible markers or tracing wires shall be installed to indicate the location of wiring.
- g) Drain Tiles: Wiring shall be located to minimize conflict with drain tiles.
- h) All above-ground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.
- 40 9. Drain Tiles: Drain tiles within the Utility-Scale Solar Energy Facility shall be preserved and maintained throughout the construction, operation, and restoration periods, as described below.

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- a) Initial Inspection: Before the start of construction, all existing drain tiles within the facility and within any disturbed areas must be inspected by robotic camera with the imagery submitted to the Township for baseline documentation on tile conditions.
 - b) Continuing Inspection: Drain tiles must be re-inspected by robotic camera every three (3) years while the facility is in operation or when conditions indicate there may be damage to drain tiles with the imagery submitted to the Township.
 - c) Repairs: Damaged drain tiles shall be repaired within sixty (60) days of discovery. The Township shall be notified of any necessary repairs before the work commences and documentation of the repair work. Repairs necessary to address an emergency situation may be completed without prior notice to the Township.
 - d) Inspection: The Township reserves the right to have a Township official or agent present at the time of repair of the drainage tile system
 - e) A report of the inspection results detailing status of all drains within the project area will be provided to the Township within thirty (30) days of completion of the physical inspection. These inspection reports may be shared with other township officials and agents.
10. Fire Suppression: A fire suppression system shall be provided that is specifically designed to immediately suppress and extinguish fires in any part of the Utility-Scale Solar Energy Facility, including the solar arrays, electrical equipment, and transformers.
- a) Documentation: Documentation shall be provided confirming the effectiveness of the fire suppression system and the results of a third-party independent inspection, as approved by the Township, of the fire suppression system.
 - b) Fire Authority: The fire suppression system shall be reviewed and approved by the Township's fire authority.
 - c) Annual Inspection: The fire suppression system shall be inspected and approved yearly by a third-party independent inspecting company that is approved by the Township.
11. Groundcover: Utility-Scale Solar Energy Facilities shall include the installation of perennial ground cover vegetation that shall be maintained for the duration of operation until the site is decommissioned where appropriate within the site.
- a) PA 116 Lands: Land within the project area that is enrolled or bound by the Farmland Preservation Program must follow the Michigan Department of Agriculture and Rural Development (MDARD) Policy for Allowing Commercial Renewable Energy Development on PA 116 Lands.
 - b) Non-PA 116 Lands: Land within the project area that is not enrolled or bound by the Farmland Preservation Program must provide at least one (1) of the following types of dual-use ground cover to promote ecological benefits:
 - 1) Pollinators: Pollinator habitat with a score of at least seventy-six (76) on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites (www.pollinators.msu.edu);
 - 2) Conservation Cover: Conservation cover focused on restoring native plants, grasses, or prairie with the aim of protecting specific species, such as bird

habitat, or providing specific ecosystem services, such as carbon sequestration or improving soil health;

3) Grazing: Incorporation of rotational livestock grazing and forage production as part of an overall vegetative maintenance plan; or

5 4) Crops: Raising crops for food, fiber, or fuel and generating electricity within the site to maximize land use.

c) Alternative Ground Cover: The Township may approve or require alternative ground cover upon finding it is not feasible to provide groundcover as defined above.

10 d) Ground Cover Nature: All ground cover must be native plants with substantial root systems to support soil. Turf grass is not permitted as ground cover.

e) Invasive and Noxious: Invasive species and noxious weeds are not permitted and must be removed in a timely manner.

12. Fencing: Utility-Scale Solar Energy Facility compounds shall be completely surrounded by a fence designed to prevent unauthorized access and to screen the facility.

15 a) Height: The fence shall be at least seven (7) feet tall.

b) Fence Posts: Fence posts shall extend at least thirty-six (36) inches into the ground, and gate posts and corner posts shall have a concrete foundation.

20 c) Fence Type: The fence shall be a woven agricultural-style fence. The Township may require or allow durable green opaque material to be integrated into the fence if necessary for buffering or screening.

d) Gate Access: Gates shall be provided at all access points, unless otherwise permitted or approved. Gates for vehicular access shall be approved by the Fire Authority.

25 e) Gate Type: Gates shall be the same height and constructed of the same material as the fencing. Access, such as Knox box, shall be provided for emergency responders.

f) Wildlife Considerations: The Township may require or allow a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.

30 g) Alternative Fencing: Alternate fencing may be approved by the Township upon a finding that the alternative provides adequate access control and visual screening.

13. Signage: Advertising or non-project related graphics shall be prohibited. This exclusion does not apply to signs required by this Ordinance.

D. Buffering Requirements: Utility-Scale Solar Energy Facilities shall provide buffering described below.

35 1. Vegetative Buffer: There shall be a landscape buffer at least twenty (20) feet wide along the exterior of any fenced compound, whenever existing natural vegetation does not otherwise reasonably obscure the fenced compound.

a) Design: The buffer shall have two (2) rows of staggered evergreen trees planted twelve (12) feet apart or less trunk-to-trunk. The two (2) rows shall be ten (10) feet

apart. The Township may consider an alternative landscape buffer, provided the alternative buffer provides adequate screening.

5 b) Vegetation Size: Plantings shall be at least eight (8) feet tall at time of planting, measured from the top of the root ball to the base of the leader, not including the height of the leader, and must be a species that can reasonably be expected to reach a height of ten (10) feet within three (3) growing seasons.

c) Maintenance: The trees may be trimmed but must maintain a height of at least eighteen (18) feet. Damaged or diseased trees shall be replaced at the next appropriate planting season.

10 d) Evergreen Species: Evergreen trees shall be Norway Spruce in the row closest to fence and Thuja Green Giant Arborvitae in the row away from the fence. The Township may require or consider alternative evergreen species, provided the alternative species are more desirable due to disease or pest or more appropriate for the local conditions.

15 2. Buffer Maintenance: Good arboricultural techniques shall be followed with respect to vegetation, including, but not limited to, proper pruning, proper fertilizing, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be replanted in a manner consistent with these standards at the next appropriate planting season.

20 a) The Utility-Scale Solar Energy Facility will be inspected on at least an annual basis to insure compliance with the Buffer Maintenance provisions outlined above.

25 b) A confirmed violation of the Buffer Maintenance provision above must be addressed within thirty (30) days or the next planting season of the owner/operator of the Utility-Scale Solar Energy Facility with a proposed resolution of the complaint submitted to the Township.

E. Performance Standards: Utility-Scale Solar Energy Facilities shall meet the performance standards below.

30 1. Compliance: Utility-Scale Solar Energy Facilities shall be designed, constructed, operated, and maintained in compliance with all applicable provisions of local, state, and federal laws and regulations and industry standards.

2. Sound: The sound generated by a Utility-Scale Solar Energy Facilities must meet the sound standards of this Ordinance and the additional standards below.

35 a) Day Sound Level: The maximum sound level shall be forty (40) Dba Lmax, as measured at the project boundary and road rights-of-way between the hours of 7:00 am and 9:00 pm.

b) Night Sound Level: The maximum sound level shall be thirty-five (35) Dba Lmax, as measured at the project boundary and road rights-of-way between the hours of 9:00 pm and 7:00 am.

40 c) Pure Tone: If pure tones are produced, the maximum sound level shall be reduced by five (5) Dba.

d) Ambient Sound: If the ambient sound levels exceed these standards, the maximum sound level shall be the ambient sound level plus five (5) Dba.

- 5 e) Inverter Sound Screening: A sound barrier of a solid decorative masonry wall or evergreen tree berm, with trees spaced not less than ten (10) feet apart, must be constructed to reduce noise levels surrounding all inverters. Berms must be within ten (10) feet of all inverters and must be at least as tall as all inverters but cannot be more than three (3) feet taller than the height of the adjacent inverters.
- f) Continued Compliance: The sound level by a Utility-Scale Solar Energy Facility must be inspected every three (3) years, at the operator's expense, by an auditory expert to ensure compliance with applicable sound standards.
- 10 3. Airport Impact: Utility-Scale Solar Energy Facilities must be reviewed using the current Solar Glare Hazard Analysis Tool (SGHAT) available through Sandia National Laboratories or a commercially-available equivalent. The SGHAT will be used to ensure that airports and those who use them will not be affected by unwanted visual or ocular impacts. The process is designed to save costs and increase public safety.
- 15 a) Adverse Impacts: The study shall determine if there are any potential adverse effects on any registered airfield within ten (10) miles of the project. Effects noted, but not exclusively, should include any possible decreased safety and utility.
- 20 b) Determination of No Hazard: Utility-Scale Solar Energy Facilities must obtain a Determination of No Hazard from the Federal Aviation Administration. A Determination of No Hazard does not eliminate the need for the SGHAT study, nor does it in any way eliminate the standard for glare on roadways or non-participating parcels.
- c) Timing: The Determination of No Hazard must be obtained before breaking ground on any portion of the Utility-Scale Solar Energy Facility. A copy of the airport impact study must be submitted to the Township.
- 25 d) Safety and Utility Impacts: Utility-Scale Solar Energy Facilities that impact safety or utility of any registered airfield shall not be permitted.
4. Reports: In addition to other reports identified in this Ordinance, the owner or operator shall submit the following reports to the Township during the operation of Utility-Scale Solar Energy Facilities.
- 30 a) Annual Report: An annual report shall be provided to the zoning administrator showing continuity of operation.
- b) Operation. A report shall be provided to the zoning administrator if the Utility-Scale Solar Energy Facility or any of its components are no longer being used.
- 35 c) Incident Report: Reports shall be submitted if there is a major incident at the Utility-Scale Solar Energy Facility that did or could have caused harm to life or property, including calls for service from emergency responders. The report shall identify the cause of the incident and corrective action to prevent future incidents of that nature.
5. Safety: Utility-Scale Solar Energy Facilities shall be subject to the safety standards below.
- 40 a) Warning Signs: The manufacturers or installer's identification and appropriate warning signs shall be posted on or near each solar array and electrical equipment in a clearly visible manner.

- b) Fire Suppression and Data Sheets: Fire suppression plans and Safety Data Sheets shall be kept onsite and be accessible for emergency responders.
- c) Safety Manual: An un-redacted copy of the manufacturer's safety manual for each component of the Utility-Scale Solar Energy Facility, without distribution restraints, will be provided before construction commences. These will be kept at the Township Hall and other locations deemed necessary by the Township or local first responders. The manual should include standard details for an industrial site such as materials, chemicals, fire, access, and safe distances during a Utility-Scale Solar Energy Facility failure, processes in emergencies, etc.
6. Interference: Utility-Scale Solar Energy Facilities must not interfere with any radio, television, or other communication systems. The applicant or operator must resolve any known interference immediately and provide proof that the interference has been resolved within ninety (90) days.
7. Complaint Resolution: Utility-Scale Solar Energy Facilities shall provide a complaint resolution process, as described below.
- a) Signs: Signs with contact information to report complaints related to the Utility-Scale Solar Energy Facility shall be posted throughout the project area. Signs shall be posted before construction begins and maintained until decommissioning is complete.
- b) Resolution Options: Any resolution shall include lawful and reasonable solutions consistent with this Ordinance.
- c) Contact: A twenty-four (24) hour toll-free number shall be established and maintained by the owner or operator to receive complaints. Additional reporting methods, such as postal mail or electronic mail, may also be used.
- d) Log: A log shall be kept by the owner or operator of all complaints received and documentation of the resolution. The log shall be available for review by Township Officials.
- e) Notification: The zoning administrator shall receive notification of all complaints received. An annual report shall be submitted to the Township that details all complaints received, the status of complaint resolution, and actions taken to resolve complaints.
- f) Resolution Period: Complaints for hazardous conditions shall be resolved within twelve (12) hours or as soon as reasonably possible. Other complaints shall be resolved within ten (10) business days.
- g) Adjudication: The operator or its assigns reserve the right to adjudicate any claims, including residential claims, in a court of competent jurisdiction.
8. Insurance and Performance Guarantees: Utility-Scale Solar Energy Facilities shall provide insurance and performance guarantees. These are in addition to other insurance or performance guarantees required by this Ordinance or other entities.
- a) General Liability Insurance: Utility-Scale Solar Energy Facilities shall have and maintain general liability insurance of at least ten million (\$10,000,000) dollars. The Township may require a higher amount for larger projects and may allow for a lesser

amount for smaller projects upon a finding that the alternate amount is more consistent with the likely risk.

5 b) General Maintenance Performance Guarantee: A General Maintenance Performance Guarantee shall be provided before construction commences to guarantee all aspects of this Ordinance are met at all times during the construction and operation of the Utility-Scale Solar Energy Facility. At the time of the application, the applicant shall submit two (2) third-party contractor bids for construction of all fencing, landscaping, and drainage improvements associated with the Utility-Scale Solar Energy Facility, and the performance guarantee shall be the higher of the two 10 (2) bids. The Township may use the performance guarantee to repair any landscaping, fencing, drainage infrastructure (including drainage tiles), and/or to correct any ongoing violation of this Ordinance in the event that the site improvements for the Utility-Scale Solar Energy Facility are not maintained or the Utility-Scale Solar Energy Facility fails to make operational changes to correct an operational violation. 15

20 c) Road Performance Guarantee: A road performance guarantee shall be provided before construction commences in a form acceptable to the Township, such as: a) a surety bond from a surety listed as acceptable on the Federal Surety Bond circular 570 of the U.S. Department of Treasury; or b) an acceptable irrevocable letter of credit; or c) an escrow account established in a financial institution licensed in the State of Michigan. A construction surety bond shall not be accepted. The amount of the performance guarantee shall be at least one million two hundred fifty thousand dollars (\$1,250,000), but this amount may be increased if the third-party consultant determines the amount needed for road repairs is greater than this amount. The performance guarantee shall only be released, in whole or part, when the Township Board, in consultation with the Livingston County Road Commission and Michigan Department of Transportation, as applicable, and the third-party inspector, determines that all required road work has been completed and approved by the affected road agencies. The Township may waive or reduce the requirement for this performance guarantee if the road agencies collect a performance guarantee. 30

35 d) Complaint Inspection Escrow: An escrow account, funded by the applicant, owner, or operator, to be used for investigation of complaints shall be established before construction commences. The escrow account shall be used by the Township for investigation of complaints, including reasonable reimbursement of qualified third-party agents, for, but not limited to, glare, stray voltage, sound, and signal interference. The escrow account shall be kept with the Township Treasurer. The initial escrow account shall be in the amount of fifteen thousand dollars (\$15,000). When the escrow account balance is below five thousand dollars (\$5,000), the Township shall notify the responsible party, who must replenish the escrow account to the amount of fifteen thousand dollars (\$15,000) within a period of forty-five (45) calendar days. 40

9. Dust Control: Reasonable dust control measures shall be taken during construction, operation, and decommissioning.

45 10. Plants and Grasses: Plants or grasses not part of the buffer area shall be maintained at a height of twelve (12) inches or less. The Township may approve a taller height upon a finding that it will not result in a nuisance.

11. Wildlife: Utility-Scale Solar Energy Facilities shall be designed, sited, and operated in a manner to minimize impact on wildlife.

5 a) Wildlife Impact Analysis: The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on wildlife and endangered species. At a minimum, the analysis shall include a thorough review of existing information regarding species and potential habitats in the vicinity of the project area. Where appropriate, surveys for bats, raptors, or general avian use should be conducted. The analysis shall include the potential effects on species listed under the federal Endangered Species Act and Michigan's Endangered Species Protection Law.

10 b) Adverse Impacts: Appropriate measures shall be taken to minimize, eliminate, or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

15 c) Special Scrutiny: Sites requiring special scrutiny include wildlife refuges, other areas where birds are highly concentrated, bat hibernacula, wooded ridge tops that attract wildlife, sites that are frequented by federally- or state-listed endangered species of birds and bats, significant bird migration pathways, and areas that have landscape features known to attract large numbers of raptors.

20 d) US Fish and Wildlife Service: The applicant shall follow all pre-construction and post-construction recommendations of the United States Fish and Wildlife Service.

25 e) Post-Construction Mortality Study: A post-construction wildlife mortality study may be required for the proposed Utility-Scale Solar Energy Facility. If such a study is determined unnecessary by the owner, operator or property owner, the reasons why such a study does not need to be conducted shall be submitted to the Township. The company to complete the Post-Construction Mortality Study shall be jointly chosen by the Township and property owner. The cost of the Post-Construction Mortality Study shall be paid for by the owner, operator, and property owner. The final report of the Post Construction Mortality Study shall be submitted to the Township within six (6) months of operation of the Utility-Scale Solar Energy Facility.

30 12. Environment: Utility-Scale Solar Energy Facilities shall be designed, sited, and operated to minimize impact on the environment.

35 a) Environmental Impact Analysis: The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on the natural environment including, but not limited to, wetlands and other fragile ecosystems, historical and cultural sites, and antiquities.

40 b) Adverse Impacts: Appropriate measures shall be taken to minimize, eliminate, or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

45 c) Environmental Laws: Utility-Scale Solar Energy Facilities shall comply with applicable parts of the Michigan Natural Resources and Environmental protection Act (Act 451 of 1994, MCL 324.101 et seq.), Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.), Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.), Part 303 Wetlands (MCL 324030301 et seq.), Part 323

Shoreland Protection and Management (MCL 324.32301 et seq.), Part 325 Great Lakes Submerged Lands (MCL 324.32501 et seq.), and Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.).

- d) Containment System: A containment system shall surround any transformers in case of hazardous waste or oil spills.
- e) Removal: All solid and hazardous waste materials shall be promptly removed from the site and disposed of properly.
- f) Responsibility: The Utility-Scale Solar Energy Facility owner, operator, and property owner shall be jointly and severally responsible for mitigating erosion, flooding, and all other environmental impacts resulting from the Facility.

13. Emergency Action Plan: Utility-Scale Solar Energy Facilities shall have an emergency action plan to identify actions to be taken in event of an emergency.

- a) The Emergency Action Plan shall jointly be reviewed and approved by the Howell Fire Department and Livingston County Emergency Management Director before the operation of the Utility-Scale Solar Energy Facility can begin commercial operation. The Emergency Action Plan shall be reviewed every three years by the Howell Fire Department and the Livingston County Emergency Management Director. All approvals or reviews of the Emergency Action Plan shall be provided to the Township Supervisor and Zoning Administrator. The cost for any review shall be the responsibility, jointly and severally, of the Utility-Scale Solar Facility owner or operator.
- b) Fire Suppression: The emergency action plan must include a fire suppression plan, including the technology to be used.
- c) Special Equipment and Training: The emergency action plan shall identify special equipment and training that is required for emergency response to the Utility-Scale Solar Energy Facility.
- d) The cost of purchasing the required special equipment for fire protection will be the responsibility, jointly and severally, of the owner and operator of the Utility-Scale Solar Energy Facility.
- e) Clean-up: The emergency action plan must include plans for immediate containment, cleanup and long-term aftermath efforts following an emergency.
- f) Emergency Training: Before the Utility-Scale Solar Energy Facility is operational, the owner or operator of the Utility-Scale Solar Energy Facility must provide the necessary training, equipment, or agreements specified in the emergency action plan to the Township, Howell Fire Department, Livingston County Emergency Response Director or any other emergency personnel at the local, state or federal level. All training must be consistent with current industry standards.
- g) The cost of the required training for the fire protection personnel shall be the responsibility, jointly and severally, of the owner and operator of the Utility-Scale Solar Energy Facility.
- h) Once a year a fire suppression training shall be held with the cost of such training being the responsibility, jointly and severally, of the owner and operator of the Utility-Scale Solar Energy Facility.

- 5 i) Public Record: The Emergency Action Plan will be a public record. Copies of the most up to date Emergency Action Plan will be maintain at all times at the Utility-Scale Solar Energy Facility, the Marion Township Hall, the Howell Fire Department substation located at the Marion Township Hall, and at the office of the Livingston County Emergency Response Director. This plan shall be available for public inspection if requested.

F. General Provisions: Utility-Scale Solar Energy Facilities shall be subject to the general provisions below.

- 10 1. Damage Repair: The owner, operator, and property owner shall be jointly and severally responsible for making repairs to any public roads, drains, and infrastructure damaged by the construction of, use of, maintenance of, or damage to the Utility-Scale Solar Energy Facility.
- 15 2. Mixed Facilities: Utility-Scale Solar Energy Facilities may be col-located with other renewable energy facilities, such and Utility Battery Energy Storage Facilities or Utility Wind Energy Conversion Facilities. Review and approval are required for each use.
- 20 3. As-Builts: The applicant shall submit an as-built drawing with dimensions relative to property lines of all new structures including turbines and buried cable both inside and outside fenced areas upon completion and before any power is supplied to the grid. The as-built drawing shall be a scale of 1" = 200 feet.
- 25 4. Repowering or Modifications: Any modifications of an approved site plan or special use permit that are made after the initial date of approval, including, but not limited to, an expansion of project, repowering, reconfiguration, technological updates, shall require new site plan and special use permit applications. Any changes of the approved site plan or special use permit will be subject to this Ordinance as it exists at time of this new application.
- 30 5. Transfer or Sale: In the event of a transfer or sale of a Utility-Scale Solar Energy Facility, the new owner or operator must notify the Township within thirty (30) days, and the zoning administrator shall administratively amend the permit to name the new owner or operator. Upon transfer or sale, the cash bond shall be transferred to the new owner or operator and shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security bond adjusted to account for the new estimate.

35 **G. Decommissioning, Abandonment, and Restoration:** Following the operational life or abandonment of a Utility-Scale Solar Energy Facility, the site shall be decommissioned and restored as outlined below.

- 40 1. Decommissioning Plan: The applicant shall have a third-party qualified professional, acceptable to the Township, prepare a decommissioning plan. The decommissioning plan shall be written to provide security to the Township for one hundred twenty-five percent (125%) of the cost to remove and dispose of all panels, wiring, and restoration of the land to its original conditions. The decommissioning security shall be paid in cash to the Township.
- a) Anticipated Life: The decommissioning plan shall describe the anticipated life span of the Utility-Scale Solar Energy Facility and its components.

- b) Decommissioning Costs: The decommissioning plan shall provide a probable cost estimate for decommissioning, including current cost and cost at the time of decommissioning.
- 5 c) How Paid: The decommissioning plan shall provide a description of how decommissioning costs will be paid.
- d) Regular Updating: The decommissioning plan shall be updated on a regular, period basis at of at least once every three (3) years. Additional security may be required to account for increased anticipated decommissioning costs during the preceding three (3) years.
- 10 2. Abandonment: Utility-Scale Solar Energy Facilities or any components that are not operated for a continuous period of six (6) months shall be considered abandoned, whether or not there is an intent to continue the use, and shall be removed or restored to operation. An extension may be granted by the Township upon finding that the delay does not create a hazardous condition and the applicant has demonstrated a good-faith effort to continue operation.
- 15 3. Damage: Any Utility-Scale Solar Energy Facility components that are damaged shall be replaced or removed within seven (7) days. An extension may be granted by the Township upon finding that it is not feasible to replace or remove the component in that period and that the delay does not create a hazardous condition.
- 20 4. Unsafe: Any unsafe components shall be removed or made safe within a reasonable period as determined by the Township.
5. Compaction Prevention: All abandonment and decommissioning work must be done when soil is dry or frozen to prevent compaction.
- 25 6. Chemical Analysis and Boring: A chemical analysis and boring of the soil, as recommended by the Township engineer shall be performed before any decommissioning work begins with the results compared to the baseline soil chemical analysis baseline test results obtained before construction of the Utility-Scale Solar Energy Facility.
- 30 a) Chemical Levels: All levels of any chemical entity found in the soil chemical analysis must be equal to or are lower than the levels of all chemical entities determined in the baseline testing performed prior to construction. If a new chemical entity, either organic or inorganic compounds, are identified in the soil chemical analysis, its level must be below established federal and state government levels for hazardous materials in soils for that chemical entity.
- 35 b) Report: A report of the soil chemical analysis must be provided to the Township within seven (7) days. If any chemical entity, organic or inorganic compounds, are above established federal and state government levels for hazardous materials in soils, the report must be submitted to the appropriate Federal and State regulatory agencies within seven (7) days of receiving the testing report showing a violation.
- 40 c) Violation Resolution: Once a violation has been determined and finalized, a reclamation plan for the contaminated soil must be developed and implemented to remove the contaminated soil from the Utility-Scale Solar Energy Facility site. The reclamation plan must meet all Federal and State regulations for the reclamation of a contaminated site. The plan must be approved by the Township Board and the

Township engineer. Once the contaminated soil has been removed and replaced with uncontaminated soil, a final soil chemical analysis shall be performed to confirm the Utility-Scale Solar Energy Facility site soils have been returned to its original state for levels of organic and inorganic compounds that existed before construction.

- 5 d) Cation Exchange Capacity: A Cation Exchange Capacity soil test shall also be required at the completion of the decommissioning process. The company to complete this study will be determined jointly by the Township and the property owner. The final report of this test shall be submitted to the Township and property owner for review and comment.
- 10 e) Violation Remediation: Any negative variations from the preconstruction soil testing must be remedied and the final results of the testing approved by the township engineer and the Township Board.
- 15 7. Ground Restoration: The ground must be restored to its original topography and land must be restored to a depth of three (3) feet below grade within three hundred sixty-five (365) days of abandonment or decommissioning. An extension may be granted by the Township if a good-faith effort has been demonstrated and any delay is not the result of actions or inaction of the operator. An alternative topography can be approved by the Township as part of the original site plan review or later as part of decommissioning.
- 20 8. Land Balancing: If land balancing is required, all top soil will be saved within the project site and spread evenly over balanced area.
9. Township Action: The Township may remove any abandoned or unsafe Utility-Scale Solar Energy Facility components that are not removed or restored within the allowed time. The owner, operator, and property owner shall be jointly and severally responsible for any costs.
- 25 10. Attorney Costs: The owner, operator, and property owner shall be jointly and severally responsible for the payment of all attorney fees and other costs incurred by the Township in the event that the Township has to enforce removal.
11. Vegetation: Disturbed land shall be revegetated at the next appropriate planting season.
- 30 12. Disposal: It is the responsibility, jointly and severally, of the owner, operator, and property owner of the Utility-Scale Solar Energy Facility to remove all structures, equipment, and waste from the site and disposed of properly. All costs for this disposal of structures, equipment, and waste shall be the total responsibility, jointly and severally, of the Utility-Scale Solar Energy Facility owner, operator and property owner.
- 35 13. Compliance with the above provisions of Section G. Decommissioning, Abandonment, and Restoration, shall be determined by review of all actions, documents and reports of said decommissioning by the Board of Trustees of Marion Township.

H. Application Materials: Applications for Utility-Scale Solar Energy Facilities must submit the following additional materials with the special use permit application. These materials are in addition to information required for site plan and special use permit applications.

- 40 1. Identification: The name and address in full of the applicant, developer, owner, operator, and property owners, a statement that the applicant is the owner involved in the application, and any additional contact information shall be submitted.

2. Application Dating: Each application for a Utility-Scale Solar Energy Facility shall indicate the date the application is received by the Township.
3. Purchase Agreements or Leases: Copies of all purchase agreements or leases for all participating properties that confirm the applicant has the permission of the participating property owners to apply for the necessary approvals and permits for construction and operation of a Utility-Scale Solar Energy Facility.
4. Project Description: A general description of the proposed project, including name-plate generating capacity and an anticipated construction schedule shall be submitted.
5. Solar Arrays: A complete description of the proposed technology to include type of solar panel and system, maximum height, fixed mounted versus tracking, number of panels, and angles of orientation shall be submitted.
6. Conceptual Plan: A graphical computer-generated depiction of how the Utility-Scale Solar Energy Facility will appear from all directions shall be submitted.
7. Documentation: A complete set of photos and video of the entire development area, including construction access roads, as it exists before the application date shall be submitted.
8. Operation: A description of operations, including anticipated regular and unscheduled maintenance and the hours of the day maintenance will take place shall be submitted.
9. Power Purchase Agreement: A copy of the power purchase agreement or other written agreement with an electric utility showing approval of an interconnection with the proposed Utility-Scale Solar Energy Facility shall be submitted.
10. Insurance: Proof of the general liability insurance to cover the Utility-Scale Solar Energy Facility, the Township, and the participating property owners shall be submitted.
11. Certifications: Certification shall be submitted that the Utility-Scale Solar Energy Facility will comply with all applicable state and federal laws and regulations in effect at the time the application is submitted, including, but not limited to: Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); and Part 365, Endangered Species Protection (MCL324.36501 et. seq.).
12. Farmland Preservation Approval: Utility-Scale Solar Energy Facilities with any participating properties that are enrolled in the Michigan Farmland Preservation program must provide confirmation of approval from the Michigan Department of Agriculture to locate the facility on the property.
13. Road Agencies: Proof of approval or conditional approval by any road agency from which the Utility-Scale Solar Energy Facility will have access or whose roads will be used as a construction or maintenance route shall be submitted.
14. Drain Commission: Proof of approval or conditional approval by and the Livingston County Drain Commission for any Utility-Scale Solar Energy Facility that has participating properties with a county drain or propose improvements within a county drain easement.

15. Manufacturers' Safety Data Sheet(s): Documentation include the type and quantity of all materials used in the operation of all equipment shall be submitted.
16. Wildlife Impact: Copy of the wildlife impact analysis shall be submitted.
17. Environmental Impact: Copy of the environmental impact analysis shall be submitted.
- 5 18. Soil Chemical Analysis: A chemical analysis and borings including a Cation Exchange Capacity (CEC) of the soil involved in the project must be completed as recommended by the Township engineer.
19. Complaint Resolution Protocol: Copy of complaint resolution protocol shall be submitted.
- 10 20. Decommissioning Plan: Copy of the decommissioning plan shall be submitted.
21. Emergency Action Plan: Copy of the Emergency Action plan shall be submitted.
22. Indemnification: An attestation that the applicant, owner, operator, and property owners, jointly and severally, responsible will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-Scale Solar Energy Facility, which is subject to the Township's review and approval, shall be submitted.
- 15 23. Right-to-Enter: Submission of an application for a Utility-Scale Solar Energy Facility grants the Township and its agents the right to enter the facility and any participating property for inspection of the Utility-Scale Solar Energy Facility at any reasonable time. The Township may hire a consultant to assist with any such inspections at a reasonable cost to be charged to the applicant, owner, or operator.
- 20 24. Additional Information: Any additional information, studies, or documentation requested by the Township or its agents that are deemed necessary to determine compliance with this Ordinance and other applicable laws and regulations.
- 25 **I. Utility-Scale Solar Energy Facilities under PA 233:** On or after November 29, 2024, once PA 233 of 2023 is in effect, the following provisions apply to any Utility-Scale Solar Energy Facility with a name-plate capacity of at least fifty (50) megawatts. These provisions below shall control to the extent that they conflict with other provisions in §17.35 Utility-Scale Solar Energy Facilities. This subsection does not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect. This subsection does not apply to Utility-Scale Solar Energy Facilities with a nameplate capacity of less than 50 megawatts. All provisions in §17.35 Utility-Scale Solar Energy Facilities that do not conflict with this subsection remain in full force and effect.
- 30
- 35 1. Setbacks: Utility-Scale Solar Energy must comply with the minimum setback requirements in the table below, with setback distances measured from the nearest edge of the perimeter fencing of the facility.

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

Nonparticipating parties	50 feet measured from the nearest shared property line
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- 2. ~~Fencing~~Installation: ~~Fencing~~Installation for the Utility-Scale Solar Energy Facilities must comply with the latest version of the National Electric Code as of November 29, 2024, or as subsequently amended.
- 5 3. Height: Solar panel components must not exceed a maximum height of twenty-five (25) feet above ground when the arrays are at full tilt.
- 10 4. Sound: Utility-Scale Solar Energy Facilities must not generate a maximum sound in excess of fifty-five (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.
- 15 5. Lighting: Utility-Scale Solar Energy Facilities must implement dark sky-friendly lighting solutions.
- 20 6. Environmental Regulations: Utility-Scale Solar Energy Facilities must comply with applicable state or federal environmental regulations.
- 25 7. Host Community Agreement: The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Utility-Scale Solar Energy Facility owner must pay the Township two thousand dollars (\$2,000.00) per megawatt of name-plate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or other projects as agreed to by the Township and the applicant.
- 8. PA 233 Requirements: The Utility-Scale Solar Energy Facility shall be subject to the other applicable rules and regulations outlined in PA 233 of 2023 and by the Michigan Public Service Commission.
- 9. Applicant's Option: An applicant can elect at the time of application to have their application for a Utility-Scale Solar Energy Facility processed using the other provisions of §17.35 Utility-Scale Solar Energy Facilities, even if PA 233 of 2023 is in full effect.

SECTION 2. AMENDMENT OF ARTICLE III DEFINITIONS

30 *§3.02 DEFINITIONS IS HEREBY AMENDED WITH THE REPLACEMENT OF THE CURRENT SOLAR ENERGY DEFINITIONS TO BE REPLACED WITH THE FOLLOWING, WHICH SHALL READ AS FOLLOWS:*

Solar Energy: The following definitions shall apply in the application of this Ordinance.

- 35 1. Abandonment: Any solar energy system or facility that is no longer producing power.
- 2. Building Integrated Photovoltaics (BIPVs): A private or utility solar energy system that is integrated into the structure of a building, such as solar roof tiles or solar shingles.

3. Decommission: To remove or retire a solar energy system or facility from active service.
4. Ground-mounted Solar Energy System: A private or utility solar energy system that is not attached to or mounted on any roof or exterior wall of any principal or accessory building.
5. Height: The height of a solar energy system, measured vertically from the adjacent grade to its highest point at maximum tilt.
6. Inhabited Structure: Any existing structure usable for living or non-agricultural commercial purposes, including, but not limited to: working, sleeping, eating, cooking, recreation, office, office storage, or any combination thereof. An area used only for storage incidental to a residential use, including agricultural barns, is not included in this definition. If it is not clear by this definition, the Zoning Administrator shall make a determination of any structure regarding whether or not it is inhabited.
7. Non-participating Property: A property that is not subject to a Utility-Scale Solar Energy Facility lease or easement agreement at the time an application is submitted for a special use permit for a Utility-Scale Solar Energy Facility.
8. Participating Property: A property that participates in a lease or easement agreement, or other contractual agreement, with or that is owned by an entity submitting a special use permit application for a Utility-Scale Solar Energy Facility.
9. Photovoltaic Array (PV Array): A device designed to collect and transform solar energy into electricity.
10. Private Solar Energy System: A Solar Energy System used exclusively for private purposes and not used for commercial resale of energy, except for the sale of surplus electrical energy back to the electrical grid.
11. Repowering: Replacing or upgrading Solar Energy System to increase power rating of panels or Solar Energy System accessory structures within the approved project footprint. This does not apply to regular maintenance.
12. Roof- or Building-mounted Solar Energy System: A private or utility solar energy system that is attached to or mounted on any roof or exterior wall of any principal or accessory building but excluding BIPVs.
13. Solar Energy System: A device designed to collect and transform solar energy into electricity, including, but not limited to, PV arrays, racks, inverters, transformers, wiring, batteries, and electrical system components.
14. Solar Farm: See Utility-Scale Solar Energy Facility.
15. Utility-Scale Solar Energy Facility: A facility with solar energy systems where the principal design, purpose, or use of such system is to provide energy to off-site uses or the wholesale or retail sale of generated electricity to any person or entity with a name-plate capacity of at least one hundred (100) megawatts.

SECTION 3. AMENDMENT OF ARTICLE XII SOLAR FARM OVERLAY DISTRICT

§12.01(B) PERMITTED ACCESSORY USES IS HEREBY AMENDED TO READ AS FOLLOWS:

1. Accessory uses or structures clearly incidental to the operation of an approved Utility-Scale Solar Energy Facility.

5 §12.01(C) USES PERMITTED BY SPECIAL USE PERMIT IS HEREBY AMENDED TO READ AS FOLLOWS:

1. Utility-Scale Solar Energy Facilities.

SECTION 4. AMENDMENT OF TABLE OF CONTENTS

10 THE TABLE OF CONTENTS IS HEREBY AMENDED FOR CONSISTENCY WITH THE ABOVE AMENDMENTS AND TO ACCOMMODATE REPAGINATION.

SECTION 5. SEVERABILITY AND VALIDITY

15 If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

SECTION 6. REPEALER

All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

SECTION 7. EFFECTIVE DATE

20 This Ordinance takes effect upon the expiration of 7 days after publication as required by MCL 125.3401(7).

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