

COHOCTAH TOWNSHIP

ORDINANCE NO. _____

**AN ORDINANCE TO AMEND THE ZONING ORDINANCE
TO REGULATE SOLAR ENERGY SYSTEMS**

The Township of Cohoctah ordains:

Section 1. Adoption of New Article 27, Solar Energy System Overlay District

New Article 27, entitled “Solar Energy System Overlay District,” is added to the Zoning Ordinance and reads as follows:

Section 27.01 Purpose and Findings

- A. Purpose. The Solar Energy System Overlay District (the “District”) is intended to provide suitable location for utility-scale solar energy systems that are otherwise authorized under state law and the Township’s Code of Ordinances and Zoning Ordinance to meet a reasonable demonstrated need for renewable energy land uses in the Township. It is the intent of the Township to permit these systems to the extent a demonstrated need exists for the land use by regulating the siting, design, construction, operation, monitoring, modification, and removal of such systems to protect the public health, safety, and welfare, and to ensure compatibility of land uses in the vicinity of solar energy systems. The Township seeks to preserve its rural character and agricultural heritage. To these ends, the land included in this District are within reasonable proximity to existing electric power transmission infrastructure.
- B. Findings. In establishing this overlay district, the Township of Cohoctah finds as follows:
1. It is necessary and reasonable to permit utility-scale solar energy systems in the Township to the extent that there is a demonstrated need for that land use.
 2. Land use for utility-scale solar energy systems beyond a reasonable and legitimate demonstrated need to provide for the Township’s energy needs would have needless adverse effects on surrounding businesses, residences, and agricultural properties, and will be detrimental to the health, safety, welfare, and prosperity of the Township and its residents.
 3. The Township wishes to preserve its existing rural character, maintain property values, and protect and preserve the quality and pace of rural life of its residents.
 4. Utility-scale solar energy systems can adversely impact the health, safety, welfare, and prosperity of the community, including existing property values, especially when in proximity to residential uses, farms, and forests.

5. Utility-scale solar energy systems should be carefully managed to reduce the adverse long-term effects the land use can have on the productivity of farmland. *See* University of Michigan Graham Sustainability Institute & Michigan State University Extension, “Planning & Zoning for Solar Energy Systems.”
6. Several Michigan communities have suffered, or are suffering, from fiscal uncertainty due to litigation and rule changes concerning taxation arising from rural renewable energy production and land uses.
7. The Township adopts these land use regulations to balance any demonstrated need for utility-scale solar energy systems in the Township with protection of the public, health, and safety welfare.
8. A utility-scale solar energy system is drastically different than traditional agricultural activities and necessitates more stringent zoning requirements to protect the health, safety, and welfare of township residents.
9. The Township has reviewed its other zoning districts, including the Light Industrial Zoning District, which is small and located near residential homes and found that it is inappropriate for utility-scale solar energy systems. Creating a new utility-scale solar energy system overlay district is a better fit in the Agriculture/Residential Zoning District to both facilitate the land use, but to minimize the impact on the health, safety, and welfare of township residents.

Section 27.02 Delineation of the Solar Energy System Overlay District

- A. The Solar Energy System Overlay District overlays existing zoning districts delineated on the official Cohoctah Township Zoning Map, which Township Zoning Map is hereby amended to add the Solar Energy Overlay District described in this section and Depicted on **Map A**. The boundaries of the Solar Energy System Overlay District are depicted on Map A, incorporated herein by reference, and are generally described as follows:

Tax Payer Identification 4702-08-400-005

SEC 8 T4N R4E BEG S 230 FT FROM E 1/4 COR, TH W 1320 FT, TH N 210 FT, TH W ALG EW 1/4 LINE 2970 FT, TH S 1320 FT, TH W 990 FT, TH S 350 FT, TH E 990 FT, TH S 310 FT, TH E 2970 FT, TH N 1400 FT, TH E 1320 FT, TH N 350 FT TO POB. COMB FROM 08-300-002 & 08-400-004 IN 1983 & SHOULD HAVE INC 08-200-004 WHICH IS NOW KNOWN AS 08-200-009 - THE E 550 FT OF THE W1/2 OF THE NE1/4 SEC 8, ALSO INCLUDING THE WEST 990FT OF THE S 135FT OF THE NW 1/4 OF THE SW1/4 191.29 AC

EXCEPT FOR THE WESTERLY 1000 FEET AND SOUTHERLY 650 FEET OF THE ABOVE-DESCRIBED PARCEL, WHICH IS APPROXIMATELY 134 ACRES AS DEPICTED ON MAP A.

Section 27.03. Permitted Uses.

There are no uses permitted by right in the Solar Energy System Overlay District, other than uses permitted by right in the underlying zoning districts.

Section 27.04. Special Land Uses.

The following uses are permitted following approval by the Planning Commission as a Special Land Use in the Solar Energy System Overlay District as regulated by Article 13 (special land uses) and Article 20 (site plan review).

Utility-Scale Solar Energy Systems

Section 2. Amendment of Section 3.01 of the Zoning Ordinance

Section 3.01 of the Zoning Ordinance, entitled “Establishment of Zoning Districts,” is amended to read as follows:

The Township is hereby divided into the following zoning districts as shown on the Official Zoning Map on file in the office of the Township Clerk, which together with all explanatory matter shown thereon, is hereby adopted by reference, and declared to be a part of this Ordinance:

Article IV	RD	Resource Development District
Article V	WRD	Waterways Resource Development District
Article VI	AR	Agricultural Residential District
Article VII	RR	Rural Residential District
Article VIII	SR	Suburban Residential District
Article IX	S	Settlement District
Article X	NSC	Neighborhood Service Commercial District
Article XI	LI	Light Industrial District
Article XII	MHR	Mobile Home Residential District
Article XXVI	LRR	Limited Recreation Residential
Article XXVII	SEOD	Solar Energy System Overlay District

Section 3. Addition of Definitions to Article 2 of the Township Zoning Ordinance

The following definitions are added to Article 2 of the Township Zoning Ordinance, consistent with the existing ordering of definitions in that section:

- A. Building Integrated Photovoltaics (BIVPs): A small, private Solar Energy System that is integrated into the structure of a building, such as solar roof tiles and solar shingles.
- B. Ground Mounted Solar Energy System: A Private or Utility-Scale Solar Energy System that is not attached to or mounted to any roof or exterior wall of any principal or accessory building.
- C. Maximum Tilt: The maximum angle of a solar array (i.e., most vertical position) for capturing solar radiation as compared to the natural or unaltered ground or topography upon which the solar array is installed.
- D. Minimum Tilt: The minimal angle of a solar array (i.e., most horizontal position) for capturing solar radiation as compared to the natural or unaltered ground or topography upon which the solar array is installed.
- E. Private Solar Energy System: A Solar Energy System used exclusively for private purposes and not used for any commercial resale of any energy, except for the sale of surplus electrical energy back to the electrical grid.
- F. Roof or Building Mounted Solar Energy System: A Private Solar Energy System attached to or mounted on any roof or exterior wall of any principal or accessory building but excluding BIVPs.
- G. Solar Energy System: Any part of a system that collects or stores solar radiation or energy for the purpose of transforming it into any other form of usable energy, including the collection and transfer of heat created by solar energy to any other medium by any means.
- H. Utility-Scale Solar Energy System: A Solar Energy System in which the principal design, purpose, or use is to provide energy to off-site uses or the wholesale or retail sale of generated electricity to any person or entity.

Section 4. Addition of New Section 13.27, entitled “Solar Energy Systems.”

New Section 13.27, entitled “Solar Energy Systems,” is added to the Township’s Zoning Ordinance and reads as follows:

Section 13.27. Solar Energy Systems.

A. General Provisions. All Solar Energy Systems are subject to the following requirements:

1. All Solar Energy Systems must conform to the provisions of this Ordinance and all county, state, and federal regulations, and safety requirements, including applicable building codes

and applicable industry standards, including those of the American National Standards Institute (ANSI).

2. If an applicant or operator of a Solar Energy System fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke any approvals after giving the applicant notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

B. Private Solar Energy Systems.

1. Administrative Review. Except as provided in subsection (d) below, all Private Solar Energy Systems require administrative approval as follows:

- a. *Application to Zoning Administrator.* An applicant who seeks to install a Private Solar Energy System must submit an application to the Zoning Administrator on a form approved by the Township Board.
- b. *Application Requirements.* The application must include:
 1. A site plan depicting setback, panel size, and the location of property lines, buildings, fences, greenbelts, and road right of ways. The site plan must be drawn to scale.
 2. Photographs of the property's existing condition.
 3. Renderings or catalogue cuts of the proposed solar energy equipment.
 4. A certificate of compliance demonstrating that the system has been tested and approved by Underwriters Laboratories (UL) or other approved independent testing agency acceptable to Township.
 5. A copy of the manufacturer's installation directions.
- c. *Zoning Administrator Authority.* The Zoning Administrator is authorized to approve, approve with conditions, or deny applications for Private Solar Energy Systems. An aggrieved party may appeal the Zoning Administrator's decision to the Zoning Board of Appeals pursuant to Article XXII of the Zoning Ordinance.
- d. *Exclusions from Administrative Review.* Administrative review is not required for (i) a single solar panel with a total area of less than eight square feet; and (ii) repair and replacement of existing solar energy equipment if there is no expansion of the size or area of the solar energy equipment.

2. Private Solar Energy System BIVPs. Private Solar Energy System BIVPs are permitted as accessory uses in all zoning districts, subject to administrative approval as set forth in this section. A building permit is required for the installation of BIVPs.

3. Roof or Building Mounted Private Solar Energy Systems. Roof or Building Mounted Private Solar Energy Systems are permitted in all zoning districts as an accessory use, subject to administrative approval as set forth in this section and subject to the following requirements:

- a. *Safety.* A Roof or Building Mounted Private Solar Energy System must be installed, maintained, and used only in accordance with the manufacturer's directions, and it must comply with all applicable codes, including the construction code and electric code.
- b. *Building Permit.* A building permit is required for installation of a Roof or Building Mounted Private Solar Energy System.
- c. *Maximum Height.* No part of the Solar Energy System mounted on a roof is permitted to extend more than five feet beyond the peak of the roof or to exceed the maximum building limitation for the zoning district in which it is located. No part of a Solar Energy System mounted on a roof is to project beyond the eaves of the room.
- d. *Location.* If the Solar Energy System is mounted on a building in an area other than the roof, no part of the Solar Energy System is permitted to extend beyond the wall on which it is mounted. A Solar Energy System mounted on a building wall may not face an adjacent public right-of-way.
- e. *Appearance.* Roof or Building Mounted Private Solar Energy Systems must be neutral in color and substantially non-reflective of light.
- f. *Abandonment.* If a Roof or Building Mounted Private Solar Energy System has been abandoned, the property owner must remove it within three months after the date of abandonment.
- g. *Nonconforming Buildings.* A Roof or Building Mounted Private Solar Energy System installed on a nonconforming building or structure is not considered an expansion of the conformity, but it must meet all height and placement requirements of the zoning district and this section.
- h. *Inspection.* The Zoning Administrator may inspect a Private Solar Energy System for compliance with this ordinance upon providing reasonable notice to the property owner or occupant.

4. Ground Mounted Private Solar Energy Systems. Ground Mounted Private Solar Energy Systems are permitted in all zoning districts except the Settlement District as an accessory

use, subject to administrative approval as set forth in this section and subject to the following requirements:

- a. *Safety.* A Ground Mounted Private Solar Energy System must be installed, maintained, and used only in accordance with the manufacturer's directions, and it must comply with all applicable codes, including the construction code and electric code. The Ground Mounted Private Solar Energy System must be permanently and safely attached to the ground.
- b. *Building Permit.* A building permit is required for installation of a Ground Mounted Private Solar Energy System.
- c. *Maximum Height.* A Ground Mounted Private Solar Energy System must not exceed the maximum building height for adjacent accessory buildings and must not exceed 10 feet above the ground when oriented at maximum tilt.
- d. *Location.* A Ground Mounted Private Solar Energy System must be located in the rear yard or side yard and meet the applicable setback requirements for the zoning district.
- e. *Underground Transmission.* All power transmission or other lines, wires, or conduits from a Ground Mounted Private Solar Energy System to any building or other structure must be located underground. If batteries are used as part of the Ground Mounted Private Solar Energy System, they must be placed in a secured container or enclosure.
- f. *Screening.* Greenbelt screening is required around any Ground Mounted Private Solar Energy System and around any equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy System from any adjacent residences. The greenbelt must consist of shrubbery, trees, and other non-invasive plant species that provide a visual screen. In lieu of a planting greenbelt, a decorative fence that is at least 50% opaque (meeting the requirements of Section 16.29 of this Ordinance applicable to fences) may be used if approved by the Planning Commission.
- g. *Lot Area Coverage.* The area of the Ground Mounted Private Solar Energy System must not exceed 50% of the square footage of the principal building on the property. If the property is two (2) acres or less in size, a Ground Mounted Private Solar Energy System is not considered an accessory building or structure.
- h. *Appearance.* The exterior surfaces of a Ground Mounted Private Solar Energy System must be generally neutral in color and substantially non-reflective of light.

- i. *Abandonment.* If a Ground Mounted Private Solar Energy System has been abandoned, the property owner must notify the Township and remove the system within three months after the date of abandonment.
- j. *Nonconforming Buildings.* A Ground Mounted Private Solar Energy System installed on a nonconforming building or structure is not considered an expansion of the conformity, but it must meet all height and placement requirements of the zoning district and this section.
- k. *Inspection.* The Zoning Administrator may inspect a Private Solar Energy System for compliance with this ordinance upon providing reasonable notice to the property owner or occupant.

C. Utility-Scale Solar Energy Systems. Utility-Scale Solar Energy Systems are permitted by Special Land Use approval in the Solar Energy System Overlay District and require a special land use permit under Article 13 and site plan approval under Article 20. Utility-Scale Solar Energy Systems are also subject to the following requirements:

1. *Definitions.* For purposes of this Section 13.27, the following terms and words are defined as follows. Should there be any conflict between the definitions of this Section and any other part of this Ordinance, the terms of this Section shall govern.

- a. *Abandonment.* Any solar energy system or facility that is no longer producing power, including damaged panels and non-functioning panels.
- b. *Conceptual Plan.* A map and summary of the proposed development or land use, indicating the lands to be included, a brief description of the proposed project, a timeline for the proposed project, where and how project will connect to the power grid, and any other information Applicant deems necessary to provide the Township with a general overview of the proposed project.
- c. *Decommission.* To remove or retire a solar energy system or facility from active service.
- d. *Height.* The height of a solar energy system and components, measured vertically from the natural grade to its highest point at maximum tilt.
- e. *Non-Participating Property.* A property that is not subject to a Utility Scale Solar Energy System lease or easement agreement at the time an application is submitted for a Special Land Use for the purposes of constructing a Utility Scale Solar Energy System.
- f. *Participating Property.* A property that participates in a lease or easement agreement, or other contractual agreement, with an entity

submitting a Special Land Use Permit application for the purpose of developing a Utility Scale Solar Energy System.

2. *Special Land Use Permit Application Requirements.* In addition to the requirements of Article 13, the applicant for a Utility-Scale Solar Energy System must provide the Township with all of the following:

- a. The name of the applicant, any parent company, subsidiary of the parent company, along with any “doing business as” of the parent company.
- b. Application fee in an amount set by resolution or fee schedule approved by the Township Board.
- c. A list of all parcel numbers that will be used by the Utility-Scale Solar Energy System including applicable attachments, establishing ownership of each parcel, with all lease agreements, easements, or purchase agreements for the subject parcels. All agreements related to the use of the subject parcels must be recorded with the Livingston County Register of Deeds.
- d. An operations agreement setting forth the operations parameters, the name and contact information of the certified operator, the applicant’s inspection protocol, emergency procedures, and general safety documentation.
- e. A written emergency response plan detailing the applicant’s plan for responding to emergencies, including fire emergencies, and analyzing whether adequate resources exist to respond to fires and other emergencies. If adequate resources do not exist, the applicant must identify its plan for providing those resources.
- f. A written description of the fire suppression system that will be installed, which must identify the manufacturer of the fire suppression system and generally describe its operations and capacity to extinguish fires.
- g. Current ground and aerial photographs of the participating property, in both a physical and electronic copy of the photographs.
- h. A copy of the applicant’s power purchase agreement or other written agreement, with any exhibits or attachments thereto, with an electric utility showing approval of an interconnection with the proposed Utility-Scale Solar Energy System.
- i. A written plan for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management.

- j. A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Utility-Scale Solar Energy System, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Utility-Scale Solar Energy System and restore the subject parcels.
- k. Financial security that meets the requirements of this ordinance.
- l. A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Utility-Scale Solar Energy System.
- m. A plan for managing any hazardous waste.
- n. A transportation plan for construction and operation phases, including any applicable agreements with the Livingston County Road Commission and Michigan Department of Transportation.
- o. An attestation that the applicant 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 Solar Energy System. The Township shall be named as an additional insured for such indemnity under C.23.
- p. A copy of the manufacturer's directions or instruction manual for installing, maintaining, and using the Utility-Scale Solar Energy System.
- q. A ground cover vegetation establishment and management plan that complies with this ordinance.
- r. Proof of environmental compliance, including compliance with 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.); Part 365, Endangered Species Protection (MCL 324.36501 et. seq.); and any other applicable laws and rules in force at the time the application is considered by the Township.
- s. A groundwater analysis of all parcels in the participating property.
- t. Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.

3. *Site Plan Application Requirements.*

- a. *Contents of Site Plan.* In addition to the requirements in Article 20, the applicant must provide a detailed site plan draft to a scale of 1" = 200 feet with the following:
 1. Location of all existing and proposed structures, panels, equipment, electrical tie lines, transmission lines, transformers, inverters, substations, security fencing, and all other components within the Utility-Scale Solar Energy System and all other structures within 1000 feet of the participating property.
 2. Location of all dwellings on the lot and within 1000 feet of the property lines of the participating properties.
 3. Depiction (to scale) of all setbacks, property lines, fences, signs, greenbelts, screening, drain tiles, easements, flood plains, bodies of water, proposed access drives, and road rights of way.
 4. Indication of how and where the system will be connected to the power grid.
 5. Plan for any land clearing and grading required for the installation and operation of the system.
 6. Plan for ground cover establishment and management.
 7. Plan for providing a wildlife corridor that provides access for wildlife to navigate through the development.
 8. Description of measures to be taken to support the flow of rainwater and/or stormwater management.
 9. Security plan detailing measures to prevent unauthorized trespass and access during the construction, operation, removal, maintenance, or repair of the Utility-Scale Solar Energy System.
 10. A maintenance plan, including landscaping upkeep, regular checks, and maintenance for the equipment, and decommissioning and removal. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the Utility-Scale Solar Energy System is decommissioned. The maintenance plan must include a plan for maintaining all setback areas in the project.
 11. Anticipated construction schedule including timeline and scope of work.

12. Sound modeling study including sound isolines extending from the sound sources to the property lines.
13. Any additional studies requested by the Planning Commission, including but not limited to the following:
 - a. Visual Impact Assessment: A technical analysis by a third-party qualified professional acceptable to the Township of the visual impacts of the proposed project, including a description of the project, the existing visual landscape, and important scenic resources, plus visual simulations that show what the project will look like (including proposed landscaping and other screening measures), a description of potential project impacts, and mitigation measures that would help to reduce the visual impacts created by the project.
 - b. Environmental Analysis:
 - i. 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. The applicant shall take appropriate measures to minimize, eliminate, or mitigate adverse impacts identified in the analysis.
 - ii. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts. The applicant shall comply with applicable parts of the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, MCL 324.101 et seq.) including but not limited to Part 31 Water Resources Protection (MCL 324.3101 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 324.30301 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.).
 - c. Stormwater Study: An analysis by a third-party qualified professional acceptable to the Township studying the

proposed layout of the Utility-Scale Solar Energy System and how the spacing, row separation, and slope affects stormwater infiltration, including calculations for a 100-year rain event. Percolation tests or site-specific soil information must be provided to demonstrate infiltration on-site without the use of engineered solutions.

- d. Glare Study: An analysis by a third-party qualified professional acceptable to the Township to determine if glare from the Utility-Scale Solar Energy System will be visible from nearby residents and roadways. If required, the analysis will consider the changing position of the sun throughout the day and year and its influences on the utility-scale solar energy system.
 - e. Wildlife Impact: A wildlife impact study, including an analysis of the impact on the properties within one mile of the project.
 - f. Utility-scale solar energy systems are not permitted on property enrolled in the Farmland and Open Space Preservation Act, being in PA 116, of 1974, now codified in Part 361 of the Natural Resources and Environmental Protection Act, PA 451 of 1974, as amended.
- b. *Conceptual Layout Plan.* Applicants may submit an optional conceptual layout plan for review prior to submission of a formal site plan. The conceptual site plan may be reviewed by the Planning Commission to allow for discussion and feedback.
 - c. *Approvals from Other Agencies.* Final site plan approval may be granted only after the applicant receives (1) all required federal and state approvals, and (2) approval by the local fire chief, county drain commissioner, county road commission, local airport zoning authority (if applicable), county building department, and any other federal, state or local agency having jurisdiction or authority to grant permits related to the Utility-Scale Solar Energy System.

4. *Application Items as Substantive Requirements.* The information, plans, documents, and other items identified as application requirements in this ordinance, including the site plan and special land use permit, are substantive requirements for obtaining approval for a Utility-Scale Solar Energy System. The Planning Commission will review the sufficiency of the application materials. If the Planning Commission determines that the substance of any application item is insufficient to protect the public health, safety, and welfare, the Planning Commission may deny approval on that basis.

5. *System and Location Requirements.*

- a. Utility-Scale Solar Energy Systems are only permitted within the Solar Energy System Overlay District.
- b. Utility-Scale Solar Energy Systems must be ground mounted.
- c. Utility-Scale Solar Energy Systems (including all solar panels, structures, and equipment) must be set back at least 250 feet from the property line of any Non-Participating Property at the time of application. If a single Utility-Scale Solar Energy System is located on more than one lot, or if the adjacent parcel is owned by the same owner as the property on which the Utility-Scale Solar Energy System is located, then the lot-line setbacks of this subsection do not apply to the lot lines shared by those lots. All property in the setback areas, if not farmed, shall be maintained as defined in a maintenance setback plan acceptable to the Township.
- d. Utility-Scale Solar Energy Systems must be set back at least 100 feet from the edge of any wetland, shoreline, or drain easement. The Planning Commission may increase this setback requirement up to 200 feet if the Planning Commission determines that such a setback is necessary to protect the public health, safety, and welfare. Utility-Scale Solar Energy Systems must be at least 200 feet from non-participating property.
- e. The height of the Utility-Scale Solar Energy System and any mounts, buildings, accessory structures, and related equipment must not exceed 10 feet when oriented at maximum tilt. The Planning Commission may allow a height of up to 16 feet if the applicant establishes that the lot is used for grazing by farm animals in a manner that requires increasing the height limit. Lightning rods shall not exceed 20 feet in height and shall not be any greater than necessary to protect the Utility-Scale Solar Energy System from lightning.
- f. The ground mounting of panels must be by screw or a similar system that does not require a footing, concrete, or other permanent mounting, to minimize soil compaction. No pounding of panels posts is permitted. *Permits.* All required county, state, and federal permits must be obtained before final site plan approval and before the Utility-Scale Solar Energy System begins operating.

6. *Screening.* Greenbelt screening is required around any Utility-Scale Solar Energy System and around any equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy System from any adjacent residences, as described below:

- a. The screening shall be installed to obscure the Utility Scale Solar Facility and shall contain two rows of staggered evergreen trees

planted not less than twelve (12) feet apart trunk to trunk, and the two rows shall be no greater than ten (10) ft apart. The Township may consider an alternative landscape buffer as a part of the special land use approval, provided the alternative provides adequate screening.

- b. Plantings shall be least eight (8) feet tall at time of planting and shall reach a height of ten (10) feet within three (3) growing seasons.
- c. The trees may be trimmed but must maintain a height of at least eighteen (18) feet.
- d. Evergreen trees shall be Norway Spruce.
- e. Good husbandry 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 this Section at the next appropriate planting time.
- f. Front, side, and rear yard screening is required if the Utility Scale Solar Energy System is adjacent to a non-participating property.

7. *Appearance.* The exterior surface of the Utility-Scale Solar Energy System must be generally neutral in color and substantially non-reflective of light.

8. *Agricultural Preservation and Habitat Impact.* Land clearing and clear cutting trees and other vegetation shall be limited to what is minimally necessary for installation and operation of the system and to ensure all-season access to solar resources given the topography of the land. Topsoil distributed during preparation shall be retained on site. In addition, access drives shall be designed to minimize extent of soil disturbance, water run-off, and soil compaction.

9. *Lighting.* Lighting of the Utility-Scale Solar Energy System must be down facing and is limited to the minimum light necessary for safe operation. Lighting shall not be taller than 16 feet. Illumination from any lighting must not extend beyond the perimeter of the lot(s) used for the Utility-Scale Solar Energy System. The Utility-Scale Solar Energy System must not produce any glare that is visible to neighboring lots or to persons traveling on public or private roads. Flashing, intermittent, and motion lights are prohibited.

10. *Signage.* Signage is not permitted except as required in this subsection and for purposes of posting information that may be necessary for electrical operations and the safety and welfare of the public. An information sign shall be posted and maintained at the entrance(s) listing the name, address, and phone number of the operator.

11. *Security Fencing.* Security fencing may be required around all electrical equipment related to the Utility-Scale Solar Energy System, including any transformers and transfer stations

in the discretion of the Planning Commission and to provide for the movement of wildlife. Appropriate warning signs must be posted at safe intervals at the entrance and around the perimeter of the Utility-Scale Solar Energy System. Required fencing must be at least seven feet tall and be composed of wood post and woven farm wire fencing. The Township may allow or require a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.

12. *Noise.* The noise generated by a Utility-Scale Solar Energy System must not exceed the following limits:

- a. 40 dBA Lmax, as measured at the property line, between the hours of 7:00 a.m. and 9:00 p.m.
- b. 35 dBA Lmax, as measured at the property line, between the hours of 9:00 p.m. and 7:00 a.m.
- c. In addition to the above limitations, a sound barrier of a solid decorative masonry wall and/or evergreen tree berm, with trees spaced not less than 10 feet apart, may be required to reduce noise levels surrounding all inverters and substations. The berm must be no more than 10 feet from all inverters, must be at least as tall as all inverters but not more than three feet taller than the height of all inverters.

13. *Underground Transmission.* All power transmission or other lines, wires, or conduits from a Utility-Scale Solar Energy System to any building or other structure must be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.

14. *Drain Tile Inspections.* The Utility-Scale Solar Energy System must be maintained in working condition at all times while in operation. The applicant or operator must inspect all drain tile at least once every three years by means of robotic camera, with the first inspection occurring before construction of any part of the Utility-Scale Solar Energy System occurs. The applicant or operator must submit proof of the inspection to the Township and Livingston County Drain Commission. Any damaged or inoperable tile shall be repaired prior to construction. After the Utility-Scale Solar Energy System is operational, the owner or operator must repair any damage or failure of the drain tile within 30 days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection. Documentation of repairs shall be submitted to the property owner, the township, and the Livingston County Drain Commission and must indicate the location, nature, and satisfactory completion of the repairs.

15. *Groundwater Analysis.* The operator of the Utility-Scale Solar Energy System must provide a groundwater analysis for all parcels within the participating properties annually during the life of the project and for five years after abandonment or decommissioning.

16. *Access Routes.* Access drives are subject to the approval of the Livingston County Road Commission and the Township Planning Commission. Access drives must be adequately maintained for emergency vehicle use, even in winter.

17. *Construction.* Construction or maintenance of the Utility-Scale Solar Energy System may only occur between 8:00 a.m. and 6:00 p.m. Monday through Friday, excluding federal holidays. Any material damages to a public road located within the Township resulting from the construction, maintenance, or operation of a Utility Scale Solar Energy System shall be repaired at the Applicant's expense.

18. *Fire Suppression.* The Utility-Scale Solar Energy System must include a fire suppression system that is specifically designed to immediately suppress and extinguish fires in any part of the Solar Energy System, including the panels, electrical equipment, transformers, and transfer stations. The applicant or operator must provide documentation establishing the effectiveness of the fire suppression system and the results of a third-party independent inspection acceptable to the Township of the fire suppression system.

19. *Ground Cover.* The lot on which the Utility-Scale Solar Energy System is located must be covered with vegetation until decommissioning. To meet this requirement, the lot must include one or more of the following:

- a. Pollinator Habitat: A site designed to have vegetation that will enhance pollinator populations, including a diversity of flowering plants and wildflowers, and meets a score of 76 or more on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites.
- b. Conservation Cover: A site designed with practices to restore native plants, grasses, and prairie with the aim of protecting specific species or providing specific ecosystem services, such as carbon sequestration or soil health. The site must be designed in partnership with a conservation organization or approved by the Livingston Conservation District.
- c. Forage/Grazing: Sites that incorporate rotational livestock grazing and forage production as part of a vegetative maintenance plan.
- d. Agrivoltaics: Sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.

20. *Wildlife Corridor.* Utility Scale Solar Energy Systems shall have access corridors for wildlife to navigate through the development.

21. *Signs.* Signs are permitted but must comply with Article 19. The lot must include at least one sign identifying the owner and providing a 24-hour emergency contact telephone number.

22. *Insurance.* The applicant or operator will maintain property/casualty insurance and general commercial liability insurance in an amount of at least \$10 million per occurrence. All insurance policies shall name the Township as an additional insured and shall include the indemnity provisions of C.2.o.

23. *Decommissioning.* If a Utility-Scale Solar Energy System is abandoned or otherwise nonoperational for a period of 90 days, the property owner or the operator must notify the Township and must remove the system within six months after the date of abandonment. The site must be filled and covered with topsoil and restored to a state compatible with the surrounding vegetation. Removal requires receipt of a demolition permit from the Building Official and full restoration of the site to the satisfaction of the Zoning Administrator. The requirements of this subsection also apply to a Utility-Scale Solar Energy System that is never fully completed or operational if construction has been halted for a period of one year. Should the Applicant fail to meet its obligations to decommission the site, the Township may utilize the security being held for this purpose to enter the site and decommission in accordance with the last approved plan.

- a. The decommissioning plan shall be written to provide security to the Township for 125% of the cost to remove and dispose of all panels, wiring, and restoration of the land to its original conditions. The value of decommissioning shall be determined by a third-party financial consultant or engineer selected by the Township and paid for by the developer. The decommissioning security shall be paid in cash to the Township. Once value of decommissioning is determined, it shall be updated on a periodic basis of not less than every 2 years and additional security may be required on the basis of the average inflation rate of the preceding 2 years.
- b. Continuing Obligations: Failure to keep any required financial security in full force and effect at all times while a Utility Scale Solar Energy System exists or is in place shall constitute a material and significant violation of the Special Land Use Permit and this Ordinance, and will subject the Utility Scale Solar Energy System Applicant, owner and operator to all remedies available to the Township, including any enforcement action, civil action, request for injunctive relief, and revocation of the Special Land Use Permit.

24. *Complaint Resolution Protocol.* Applicant shall provide a Complaint Resolution protocol at time of submission of final site plan. The operator of the project or its assigns shall initially respond within 10 business days to complaints from neighboring property owners arising from and related to the operation of the Utility Scale Solar Energy System. Any resolution shall include lawful and reasonable solutions consistent with the Zoning Ordinance, which shall also be provided to the Township Zoning Administrator.

25. *Extraordinary Events.* If the Utility-Scale Solar Energy System experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the applicant or operator must notify the Township within 24 hours. Any damaged or inoperable panels must be repaired within 30 days after discovery and the applicant or operator must submit proof of the repair to the Township.

26. *Annual Report.* The applicant or operator must submit a report on or before November 1 of each year that includes all of the following:

- a. Amount of electric generation;
- b. Current proof of insurance;
- c. Verification of financial security; and
- d. A summary of all complaints, complaint resolutions, and extraordinary events.
- e. Number of panels removed, replaced, repaired, or other improvements.

Additionally, a representative of the applicant or operator must appear before the Township Board at least once every three years to report on the Utility-Scale Solar Energy System and address questions or concerns from the Planning Commission.

27. *Inspections.* The Township may inspect a Utility-Scale Solar Energy System at any time by providing 24 hours advance notice to the applicant or operator.

28. *Transferability.* A special use permit for a Utility-Scale Solar Energy System is transferable to a new owner. The new owner must register its name and business address with the Township and must comply with this Ordinance and all approvals and conditions issued by the Township.

29. *Lease.* If the participating property is proposed to be leased, instead of owned, by the owner or applicant of the Utility-Scale Solar Energy Project, all property within the project boundary must be included in a recorded easement(s), lease(s), or consent agreement(s) specifying the applicable uses for the duration of the project. All necessary leases, easements, or other agreements between the utility scale solar energy owners or applicant and the property owners must be in place prior to commencing construction.

30. *Site Plan Amendments.*

- a. Site plan amendments may be permitted pursuant to Article XX of the zoning ordinance, except the following shall not be considered a minor amendment by the Planning Commission:
 - 1. Changes of the location of arrays, fencing, buildings, or ancillary equipment by 10 feet or more.
 - 2. Any increase in the height of solar panels.
- b. The Planning Commission may consider the following to be minor amendments:
 - 1. Changes of the location of arrays, fencing, buildings, or ancillary equipment by less than 10 feet.

31. *Remedies.* If an applicant or operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke the special land use permit and site plan approval after giving the applicant or operator notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

32. *No on-site power storage, battery storage, PV Array, or device storage is permitted.*

33. The applicant must certify and guarantee that the utility-scale solar energy system will comply with 47 CFR Part 15, subpart B and not produce any radio frequency interference or electrical magnetic interference at the property line of all non-participating property owners within 1,000 feet of the project.

Section 5. Validity and Severability.

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.

Section 13.17 of the Township Zoning Ordinance pertaining to "solar buildings" is repealed. All other ordinances inconsistent with the provisions of this Ordinance are repealed to the extent necessary to give this Ordinance full force and effect.

Section 7. Effective Date.

This Ordinance takes effect seven days after publication as provided by law.

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