

# **COHOCTAH TOWNSHIP UTILITY SCALE SOLAR ENERGY SYSTEMS ZONING ORDINANCE AMENDMENTS**

**Amendments the Cohoctah Township Zoning Ordinance to add definitions related to solar energy and establish standards for utility scale solar energy systems.**

## **1. AMENDMENTS TO OTHER SECTIONS OF THE ORDINANCE TO BE CONSISTENT WITH THE CHANGES TO SECTION 13.27.**

- Delete Section 13.17 regarding Solar Buildings.
- Replace references to “Solar farms” to “Utility scale solar energy systems” in Sections 4.03(M), 5.03(L), 6.03(K), 7.03(H), 10.03(G), 11.03(X), and 16.58(C).
- Remove definition of “Solar Farm” from Section 2.02.

## **2. REPLACE EXISTING SECTION 13.27 IN ITS ENTIRETY**

**13.27 UTILITY SCALE SOLAR ENERGY SYSTEMS.** The following requirements shall apply to all Utility Scale Solar Energy Systems.

- A. Purpose and Intent: The purpose and intent of this Section is to establish standards for the siting, installation, operation, repair, decommissioning, and removal of Utility Scale Solar Energy Systems, as a permitted Special Use with conditions in the following districts: RD, WRD, AR, RR, NSC, and LI.
- B. 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.
1. Abandonment: Any solar energy system or facility that is no longer producing power.
  2. 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.
  3. Decommission: To remove or retire a solar energy system or facility from active service.
  4. Height: The height of a solar energy system, measured vertically from the adjacent grade to its highest point at maximum tilt.
  5. 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.

- 6 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.
  - 7 PV Array: see Photovoltaic (PV) Devices.
  - 8 Photovoltaic (PV) Devices: A device designed to collect and transform solar energy into electricity.
  - 9 Repowering: reconfiguring, renovating, or replacing an SES to maintain or increase the power rating of the SES within the existing project footprint.
  - 10 Utility Scale Solar Energy System (SES): A Solar Energy System 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.
- C. All applications for a Utility Scale Solar Energy Systems use must be accompanied by a Conceptual Plan, at time of submission of application. The conceptual plan shall be reviewed by Planning Commission and allow for discussion with and feedback from the Planning Commission. This plan must be approved by the Planning Commission prior to submission of a final site plan.
- D. Final site plan submittal must include a detailed site plan including all applicable requirements found in this ordinance, drawn to scale, dimensioned, and certified by a registered engineer licensed in the State of Michigan, displaying the following information:
- 1 All requirements for a site plan contained in Article XX of the Cohoctah Township Zoning Ordinance, unless otherwise specified in the information below;
  - 2 Scale of 1 inch = 200 feet;
  - 3 All lot lines and dimensions, including a legal description of each lot or parcel comprising the Utility Scale Solar Energy System;
  - 4 Names of owners of each lot or parcel within Cohoctah Township that is on the property and within one hundred fifty (150) feet of the property lines;
  - 5 Vicinity map showing the location of all surrounding land uses;
  - 6 Location of all above or below ground drainage systems including but not limited to, farm tiles, county drains, wetlands, and road ditches;
  - 7 Location and height of all existing and proposed PV Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing, and all above-ground structures and utilities associated with the Utility Scale Solar Energy System;

- 8 Horizontal and vertical (elevation) to scale drawings with dimensions that show the location of the proposed PV Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing and all above ground structures and utilities on the property;
- 9 Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the Utility Scale Solar Energy System and within one hundred (100) feet of all exterior property lines of the Utility Scale Solar Energy System;
- 10 Location of any on site battery storage or use and location of any on site PV Array storage.
- 11 Location of Knox Box or other means of emergency access.
- 12 Proposed setbacks from the PV Array(s) to all existing and proposed structures within two hundred (200) feet of the Utility Scale Solar Energy System;
- 13 Land elevations for the Solar Array(s) location and the relationship to the land elevations of all existing and proposed structures within two hundred (200) feet of the Utility Scale Solar Energy System at a minimum of five (5) foot contours;
- 14 Access driveways within and to the Utility Scale Solar Energy System, together with a detailed narrative regarding dimensions, composition, and maintenance of each proposed driveway. All access drives shall be subject to Livingston County Road Commission approval and shall be planned so as to minimize the use of lands for that purpose;
- 15 Planned security measures to prevent unauthorized trespass and access during the construction, operation, removal, maintenance, or repair of the Utility Scale Solar Energy System;
- 16 A written description of a maintenance plan to be used for the PV Array and other components of the Utility Scale Solar Energy System, 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;
- 17 Planned lighting measures if any, such as fixed motion lights or if mounted on equipment;
- 18 Additional detail(s) and information as required by this Article XII for Special Land Uses, Article XX for Site Plans, and as required by the Planning Commission.

- E. Application Escrow Account: An escrow account shall be deposited with the Township by the Applicant when the Applicant applies for a Special Land Use Permit for a Utility Scale Solar Energy System. The monetary amount deposited by the Applicant in escrow with the Township shall be the amount estimated by the Township, to cover all reasonable costs and expenses associated with the Special Land Use Permit review and approval process, which costs shall include, but are not limited to, reasonable fees of the Township Attorney, Township Board, Township Planner and Township Engineer, as well as costs for any reports or studies that are reasonably related to the zoning review process for the application. The Applicant shall have thirty (30) days to pay the amount estimated by the Township. Such escrow amount shall be in addition to any filing or application fees established by resolution. At any point during the Special Land Use Permit review process, the Township may require the Applicant to place additional funds into escrow with the Township if the existing escrow amount deposited by the Applicant is deemed insufficient by the Township. If the escrow account needs replenishing and the Applicant refuses to do so within thirty (30) days, the Special Land Use Permit process shall cease until the Applicant makes the required additional escrow deposit. Any applicable zoning escrow policies or other Ordinances adopted by the Township must also be complied with by the Applicant. The Township shall provide a summary of all account activity to the Applicant within a timely manner upon request. Any funds remaining within the escrow after approval or denial of the Special Land Use Permit shall be returned in a timely manner to the Applicant.
- F. Land Enrolled in PA 116 Farmland Development Rights Program. Per the Michigan Department of Agriculture and Rural Development (MDARD), land enrolled in the PA 116 program may be permitted to participate in solar energy development subject to MDARD policy and requirements.
- G. Compliance with the County Building Code and the National Electric Safety Code: Construction of a Utility Scale Solar Energy System shall comply with the National Electric Safety Code and the County Building Code (as shown by approval by the County) as a condition of any Special Land Use Permit under this section. In the event of a conflict between the County Building Code and National Electric Safety Code (NESC), the NESC shall prevail.
- H. Certified PV Array Components: Components of a PV Array shall be approved by the Institute of Electrical and Electronics Engineers (“IEEE”), Solar Rating and Certification Corporation (“SRCC”), Electronic Testing Laboratories (“EIL”), or other similar certification organization if the similar certification organization is approved by the Township, which approval shall not be unreasonably withheld.
- I. Height: Maximum height of a PV Array, other collection device, components or buildings of the Utility Scale Solar Energy System, shall not exceed sixteen (16) feet at full tilt (as measured from the natural grade at the base of improvements). Substation and electrical transmission equipment shall not exceed one hundred (100) feet in height.
- J. Lot Size: A Utility Scale Solar Energy System shall be located on one or more

parcels with an aggregate area of five (5) acres or greater.

- K. Setbacks: A minimum setback distance of fifty (50) feet from all exterior property lines of the Utility Scale Solar Energy System and existing public roads and railroad rights-of-way shall be required for all buildings and PV Arrays. Additionally, a minimum setback distance of one hundred (100) feet shall be provided for PV Arrays, equipment, and buildings from all non-participating property with a residential use or within a residential district.
- L. Lot Coverage: Total area of arrays shall not be included in the calculation of maximum permitted lot coverage requirement for any parcel.
- M. Dual Use/Groundcover. A Utility Scale Solar Energy System shall include the installation of perennial ground cover vegetation maintained for the duration of operation until the site is decommissioned. The Applicant shall include a ground cover vegetation establishment and management plan as part of the site plan.
  - 1 Sites bound by PA 116 must follow the Michigan Department of Agriculture and Rural Development's Policy for Allowing Commercial Solar Panel Development on PA 116 Lands.
  - 2 All properties not enrolled in the PA 116 program must provide one of the following four types of Dual Use defined in this ordinance to promote ecological benefits:
    - a. Pollinator Habitat: Solar sites designed to meet a score of 76 or more on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites ([www.pollinators.msu.edu](http://www.pollinators.msu.edu)).
    - b. Conservation Cover: Solar sites designed in consultation with conservation organizations that focus on restoring native plants, grasses, and prairie with the aim of protecting specific species (e.g., bird habitat) or providing specific ecosystem services (e.g., carbon sequestration, soil health).
    - c. Forage: Solar sites that incorporate rotational livestock grazing and forage production as part of an overall vegetative maintenance plan.
    - d. Agrovoltaics: Solar sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.
  - 3 If it is not feasible to provide Dual Use, developer must demonstrate to Planning Commission why it is not reasonably feasible.
  - 4 All groundcovers must be native plants with substantial root system to support soil, no turf grass.
  - 5 Application must include an invasive species and noxious weeds management control plan.
- N. Screening/Security: A Utility Scale Solar Energy System shall be completely enclosed by perimeter security fencing to restrict unauthorized access. Such

fencing shall be seven (7) feet in height and be constructed of a woven wire fence, such as deer fencing. The Planning Commission may consider an alternative fence-type as part of the special use approval. Electric fencing or barbed wire is prohibited. The perimeter of Utility Scale Solar Energy Systems shall also be screened and buffered by installed evergreen or native vegetative plantings whenever existing natural vegetation does not otherwise reasonably obscure the Utility Scale Solar Energy System from adjacent non-participating residential structures, subject to the following requirements:

- 1 No landscaping shall be placed within fifty (50) feet of any right-of-way.
- 2 Landscape screening shall be installed to obscure the Utility Scale Solar Energy System from adjacent non-participating properties and from passersby. Utility Scale Solar Energy Systems shall be reasonably screened from the view of the surrounding non-participating residences, streets, and roads to the maximum extent practicable, except to the extent that such screening is either impracticable or would result in ineffective solar access on the site in question. The perimeter of Utility Scale Solar Energy Systems shall also be screened and buffered by installed evergreen or native vegetative plantings whenever existing natural vegetation does not otherwise reasonably obscure the Utility Scale Solar Energy System from adjacent residential structures, subject to the following requirements:
  - a. All Utility Scale Solar Energy Systems that rely on landscaping or a vegetative buffer for screening shall maintain a minimum opacity of at least sixty percent (60%), and a mature height of not less than six (6) feet or sixty percent (60%), whichever is greater, of the height of the Utility Scale Solar Energy System when oriented to maximum tilt.
  - b. The evergreen or native and shrub vegetative buffer shall either be composed of one (1) row of evergreen trees and two (2) offset rows of shrubs that at planting shall be a minimum of six (6) feet in height (evergreen trees) and shrubs two (2) feet in height. Or two (2) rows of evergreen trees. with one (1) row having a minimum height of four (4) feet and the other a minimum height of six (6) feet.
  - c. All plant materials shall be installed between March 15 and November 15. If the Applicant requests a Land Use Permit from the Township and the Applicant is unable to plant during the installation period, the Applicant will provide the Township with a surety or corporate guarantee for an amount equal to one and one-half (1.5) times the cost of any planting deficiencies that the Township shall hold until the next planting season. After all plantings have occurred, the Township shall return the financial guarantee.
  - d. Failure to install or continuously maintain the required vegetative

buffer shall constitute a violation of this Ordinance and any Special Use Permit may be subject to revocation.

- O. 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) which lists the name and phone number of the operator.
- P. Agricultural Preservation and Habitat Impact: Land clearing 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.
- Q. Noise: No component of any Utility Scale Solar Energy System shall emit noise exceeding forty-five (45) dBA (Leq (1 hour)) as measured at the exterior property boundary or the existing ROW line. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard.
- R. Lighting: Lighting shall be limited to inverter and/or substation locations only. Lighting shall be downlit shielding and be placed to keep light on site and glare away from adjacent properties, bodies of water, and adjacent roadways. Flashing or intermittent lights are prohibited. Motion lights, for the purpose of security, may be permitted at the discretion of the Planning Commission.
- S. Drain Tiles: Drain tiles on the Utility Scale Solar Energy System site rendered non-functioning directly as a result of construction or operation on the Utility Scale Solar Energy System will be replaced or repaired so as to maintain the existing drainage volume of the parcel(s) throughout the life of the Utility Scale Solar Energy System. A drainage plan shall be provided.
- T. Distribution, Transmission and Interconnection: All collection lines and interconnections from the PV Array(s) to any electrical substations shall be located and maintained underground inside the Utility Scale Solar Energy System, except in areas where technical or physical constraints make it necessary to install equipment above ground. This requirement excludes transmission equipment meant to connect the project substation to the local transmission system.
- U. Abandonment and Decommissioning: Following the life of the project, the Applicant shall perform decommissioning and removal of the Utility Scale Solar Energy System and all its components. The Applicant shall prepare a Decommissioning Plan and submit it to the Planning Commission for review and approval prior to issuance of the Special Land User Permit. The decommissioning plan shall be written to provide security to the Township for one hundred percent

(100%) of the cost to remove and dispose of all panels, wiring, and restoration of the land to its original conditions. All work must be done when soil is dry to prevent compaction. 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 through escrow. Once value of decommissioning is determined, it shall be updated on a periodic basis of not less than every three (3) years. Any Photovoltaic Devices that are not operated for a continuous period of twelve (12) months shall be considered abandoned and shall prompt an abandonment hearing. The ground must be restored to its original condition within three hundred sixty-five (365) days of abandonment or decommissioning. 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.

1. 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.

- V. 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 ten (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.
  - a. Applicant will submit annual report to Township Board that details complaints received regarding the Utility Scale Solar Energy System and status of complaint resolution and actions taken to mitigate complaints.
- W. Indemnity/Insurance: The Township shall be indemnified from all third-party claims for personal or property damage arising from the developer's negligent and/or intentional acts and/or omissions during construction, maintenance and decommissioning of the Utility Scale Solar Energy System and shall be listed as an additional insured on applicable insurance policies during the life of the project.
- X. General Standards: The Planning Commission shall not approve any Utility Scale Solar Energy System Special Land Use Permit unless it finds that all the general standards for Special Land Uses contained in Article XIII of this Ordinance are met.
- Y. Approval Time Limit and Extension: Special use and site plan approvals or permits under this Section shall be valid for one year but, if requested by the Applicant prior to that expiration date, shall be extended for an additional one-



year period if good faith effort is shown.

- Z. Maintenance and Repair: Each Utility Scale Solar Energy System must always be kept and maintained in good repair and condition. If the Township Zoning Administrator determines that a Utility Scale Solar Energy System fails to meet the requirements of this Ordinance, the Special Land Use Permit, any other applicable violations, or that it poses a safety hazard, the Zoning Administrator, or his or her designee, shall provide notice to the Applicant. If, after a reasonable cure period (not to exceed fourteen (14) days), the identified issues are not addressed, the Applicant is entitled to a hearing before the Township Board. If the Township Board determines that identified issues require that the Utility Scale Solar Energy System must be shut down, Applicant shall immediately shut down the Utility Scale Solar Energy System and not operate, start or restart the Utility Scale Solar Energy System until the issues have been resolved. Applicant shall keep all sites within the Utility Scale Solar Energy System neat, clean, and free of refuse, waste or unsightly, hazardous, or unsanitary conditions.
- AA. Roads: 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. In addition, the Applicant shall submit to the appropriate Livingston County agency a description of the routes to be used by construction and delivery vehicles; any road improvements that will be necessary to accommodate construction vehicles, equipment, or other deliveries. The Applicant shall abide by all Livingston County requirements regarding the use and/or repair of Livingston County roads and shall obtain all required permits.
- BB. Density; Location. No more than 2.5% (two- and one-half percent) of the land in a ten (10) mile radius of the project area (radius is determined by central point of project) of any existing Utility Scale Solar Energy System within the Township shall be approved for use as the project area for a new Utility Scale Solar Energy
- CC. Repowering: In addition to repairing or replacing solar energy components to maintain the system, a Utility Scale Solar Energy System may at any time be repowered by reconfiguring, renovating, or replacing the system to increase the power rating within the existing project footprint.
  - 1. A proposal to change the project footprint of an existing Utility Scale Solar Energy System shall be considered a new application, subject to the ordinance standards at the time of the request
- DD. Wildlife Corridor: Utility Scale Solar Energy Systems shall have access corridors for wildlife to navigate through the development. Applicant should demonstrate within their site plan means for allowing for wildlife corridors throughout the site, which may include natural patterns, breaks in the fencing, and other means for allowing movement of migratory animals and other wildlife.
- EE. Modifications of Approved Site Plan: Any modifications, revisions, or changes to

an approved site plan shall be considered either a minor or major site plan amendment and must follow the standards of Section 20.11 Amendment of an approved site plan.

FF. Other Requirements: Each Utility Scale Solar Energy System shall also comply with all applicable federal, state and county requirements, in addition to other applicable Township Ordinances.

- a. Additional approvals and agency reviews required as part of final site plan review, subject to Planning Commission:
  - i. Michigan Department of Environment, Great Lakes, and Energy (EGLE);
  - ii. Livingston County Soil Erosion Permitting Agency – if the project is twenty (20) or more acres in size or is within five hundred (500) feet of a lake or stream.
  - iii. Livingston County Drain Commission.
  - iv. Livingston County Road Commission.
  - v. Livingston County Building Department.
  - vi. All local fire departments with jurisdiction over the participating properties.