

# CLINTON TOWNSHIP

Ordinance 2023-\_\_\_

*An ordinance to amend the Clinton Township Zoning Ordinance, to provide for creating a Large Solar Energy Overlay for the AA-1 and AA-2 Agricultural Districts.*

## THE TOWNSHIP OF CLINTON ORDAINS:

### **Section 1. Amendment to Section 2.2 of Article II, to add definitions for Solar Energy Facilities**

Amendment to Section 2.2 of Article II of the Clinton Township Zoning Ordinance to add definitions for solar energy facilities as follows:

SOLAR ENERGY FACILITY: The following terms apply to an energy generating facility consisting of one or more solar panels and associated equipment:

- A. LARGE SOLAR ENERGY FACILITY (SOLAR FARM). A utility-scale commercial facility that converts sunlight into electricity, whether by photovoltaics (PV) or various experimental solar technologies, for the primary purpose of wholesale or retail sales of generated electricity.
- B. SMALL SOLAR ENERGY FACILITY. Any photovoltaic or solar hot water devices that are accessory to and incorporated into the development of an authorized use of the property, and which are designed for the purpose of reducing or meeting on-site energy needs.
- C. MEDIUM VOLTAGE CABLE. 34.5 kV lines which provide electricity to homes.
- D. PHOTOVOLTAICS (PV). A technology that converts light directly into electricity.
- E. POWER SWITCHYARD. The structure needed to tie the solar energy facility to electric transmission lines.

### **Section 2. Amendment to Section 3.01 of Article III**

Section 3.01 of Article III of the Clinton Township Zoning Ordinance is amended as follows:

#### **SECTION 3.1 ESTABLISHMENT OF DISTRICTS**

The Township of Clinton is hereby divided into the following zoning districts:

- AG AGRICULTURAL DISTRICT
- SR SUBURBAN RESIDENTIAL DISTRICT
- LR LAKE RESIDENTIAL

PO	PARKS AND OPEN SPACE
MR	MULTI-FAMILY RESIDENTIAL DISTRICT
MH	MOBILE HOME RESIDENTIAL DISTRICT
C	COMMERCIAL DISTRICT
I	INDUSTRIAL DISTRICT
LSEO	LARGE SOLAR ENERGY OVERLAY DISTRICT

**Section 3. Amendment to Article V to add Section 5.20**

Article V of the Clinton Township Zoning Ordinance is amended to add Section 5.20 as follows:

**SECTION 5.20 SMALL SOLAR ENERGY FACILITY.**

Small Roof-Mounted or Ground-Mounted Solar Energy Facilities shall be considered a permitted use in all zoning districts as an accessory to a principal use. A Small Solar Energy Facility (as defined in Section 2.2) shall be required to have appropriate building permits.

1. **Minimum Requirements.** All Small Solar Energy Facilities are subject to the following minimum requirements:
  - A. A small solar energy facility shall provide power for the principal use and/or accessory use of the property on which the small solar energy facility is located and shall not be used for the generation of power for the sale of energy to other users, although this provision shall not be interpreted to prohibit the sale of excess power generated from time to time to the local utility company.
  - B. A small solar energy facility connected to the utility grid shall provide written authorization from the local utility company to Madison Charter Township acknowledging and approving such connection.
  - C. A roof-mounted facility may be mounted on a principal building or accessory building. A roof mounted facility, whether mounted on the principal building or accessory building, may not exceed the maximum principal building height or accessory building height specified for the building type in the underlying zoning district. In no instance shall any part of the small solar energy facility extend beyond the edge of the roof.
  - D. A ground mounted facility shall not exceed a height of fourteen (14) feet.

- E. The surface area of a ground mounted facility, regardless of the mounted angle, shall be calculated as part of the overall lot coverage.
- F. A ground mounted facility or facility attached to an accessory building shall not be located within the required front yard setback.
- G. The minimum ground-mounted small solar energy facility setback distance from the property lines shall be equivalent to the principal building setback of the underlying zoning district.
- H. All mechanical equipment associated with and necessary for the operation of the small solar energy facility shall comply with the following:
  - (1) Mechanical equipment shall not be located within the minimum front yard setback of the underlying zoning district.
  - (2) Mechanical equipment for ground-mounted facilities shall comply with the setbacks specified for principal structures in the underlying zoning district.
- I. Solar panels shall be placed such that concentrated solar radiation or glare shall not be directed onto nearby properties or roadways.
- J. All power transmission lines from a ground mounted small solar energy facility to any building or other structure shall be located underground.
- K. A small solar energy facility shall not be used to display advertising, including signage, streamers, pennants, spinners, reflectors, ribbons, tinsel, balloons, flags, banners or similar materials. The manufacturers and equipment information, warning, or indication of ownership shall be allowed on any equipment of the solar energy facility provided they comply with the prevailing sign regulations.
- L. The design of the small solar energy facility shall conform to applicable industry standards. A building/zoning permit shall be obtained prior to construction. In the case of a roof-mounted facility, the existing roof structure and the weight of the facility shall be taken into consideration when applying for a small solar energy facility permit.

- M. All wiring shall comply with the applicable version of Michigan’s construction codes. The local utility provider shall be contacted to determine grid interconnection and net metering policies. The Applicant shall submit certificates of design compliance obtained by the equipment manufacturer from a certifying organization and any such design shall be certified by an Engineer registered in the State of Michigan.
  - N. The small solar energy facility shall comply with all applicable Township ordinances and codes so as to ensure the structural integrity of such facility.
  - O. Before any construction can commence on any small solar energy facility the property owner must acknowledge that he/she is the responsible party for owning/leasing and maintaining the solar energy facility.
2. **Removing Small Solar Energy Facility.** If a ground mounted small solar energy facility is removed, any earth disturbance as a result of the removal of the ground mounted facility shall be graded and reseeded.
  3. **Abandoned Small Solar Energy Facility.** If a ground mounted small solar energy facility has been abandoned (meaning not having been in operation for a period of six (6) months) or is defective or is deemed to be unsafe by the Building Inspector, the facility shall be required to be repaired by the owner to meet federal, state and local safety standards, or be removed by the property owner within the time period allowed by the Building Inspector. If the owner fails to remove or repair the defective or abandoned small solar energy facility, the Township may pursue a legal action to have the facility removed at the owner’s expense.

**Section 4. Amendment to Section 4.1 of Article IV to add Small Solar Energy Facility as a Permitted Use in the Open Districts**

Section 4.1. of Article IV is amended as to add the following item to the list of permitted uses:

Small Solar Energy Facility subject to the requirements of Section 5.20

**Section 5. Amendment to Section 4.2 of Article IV to add Small Solar Energy Facility as a Permitted Use in the Residential Districts**

Section 4.2. of Article IV is amended as to add the following item to the list of permitted uses:

Small Solar Energy Facility subject to the requirements of Section 5.20

**Section 6. Amendment to Section 4.3 of Article IV to add Small Solar Energy Facility as a Permitted Use in the Commercial District**

Section 4.3. of Article IV is amended as to add the following item to the list of permitted uses:

Small Solar Energy Facility subject to the requirements of Section 5.20

**Section 7. Amendment to Section 4.3 of Article IV to add Small Solar Energy Facility as a Permitted Use in the Industrial District**

Section 4.4 of Article IV is amended as to add the following item to the list of permitted uses:

Small Solar Energy Facility subject to the requirements of Section 5.20

**Section 8. Amendment to add Section 4.6 of Article IV to create the Large Solar Energy Overlay District.**

Section 4.6 is added to Article IV of the Clinton Township Zoning Ordinance is added:

**SECTION 4.6 - LARGE SOLAR ENERGY OVERLAY (LSEO) DISTRICT**

The LSEO is intended to overlay certain designated and/or named properties in the Agricultural Districts. The purpose of this overlay district to establish minimum requirements and regulations for the placement, construction and modification of large solar energy facilities (Solar Farms), as defined in Article XVI, while promoting the safe, effective, and efficient use of such energy facilities as a permitted use in specified zoning districts.

**1. Lands Appropriate for Application of the LSEO**

In order to qualify to apply for the LSEO District a parcel or parcels of land must meet the following criteria:

- A. *Location.* All large solar energy facilities (Solar Farms) are limited to the Agricultural districts. Large solar energy facilities are not permitted on any properties enrolled in the PA 116 Farmland and Open Space Preservation Program. Solar farms are permitted only on non-productive land that's not useable for farming.
- B. *Minimum Lot Size.* Solar Farms shall be erected on any land not less than fifty (50) acres in size.
- C. *Proximity to High Voltage Lines.* All Solar Farms must be located no further than five hundred (500) feet from high voltage transmission lines.

## 2. **Application Requirements for Large Solar Energy Overlay District**

An application to rezone land for application of the LSEO District shall contain the following information and comply with the following standards:

### A. *Solar Farm Description.*

- (1) Evidence that the land proposed for rezoning meets the criteria for application of the LSEO District as set forth herein.
- (2) An application to rezone property to the LSEO District to establish a Solar Farm shall include a complete description of the project and documentation to sufficiently demonstrate that the requirements and design standards set forth in this Ordinance will be met.
- (3) Supporting documentation for addressing the review criteria is also to be provided. The Planning Commission and/or Township Board may require any information reasonably necessary to determine compliance with this ordinance.
- (4) The application for rezoning for a LSEOD shall identify the Solar Farm buildings and accessory structures, the time period to construct the Solar Farm, the phasing of construction, if any, and the anticipated useful life of the Solar Farm.

B. *Related Applications and Connections to Power Grid.* It is preferred that any related applications for substations or new transmission lines be considered in conjunction with the rezoning application; however, if the details of those improvements are not available at the time of application for the LSEOD, they may be considered later during site plan review. At a minimum, the intended route for connecting to the power grid and the alternative locations of any substation shall be disclosed with the application for the LSEOD.

C. *Environmental Siting Considerations.* The applicant shall provide evidence of compliance with applicable State of Michigan statutes 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.); Part 365, Endangered Species Protection (MCL324.36501 et. Seq.); and such other applicable laws and rules in force at the time the application is considered by the Township Board.

- D. *Site Plans*. The applicant shall submit a site plan conforming with Section 7.23 and identifying:
- (1) All lots in the Solar Farm, and as to each lot, existing and proposed:
    - (a) buildings;
    - (b) accessory structures;
    - (c) utilities;
    - (d) transmission lines;
    - (e) solar panels;
    - (f) drainage ways;
    - (g) grades;
    - (h) topographical conditions;
    - (i) vegetation; Method of control.
    - (j) regulated wetlands;
    - (k) regulated floodplains;
    - (l) regulated and endangered species, and
    - (m) regulated lakes, streams or ponds;
  - (2) Required setbacks by showing the distance to all lot lines and public road rights-of-way, all lands zoned Residential Districts (RA) or Commercial Districts (C) existing residences and drain easement.

- (3) Access routes to lots that are a part of the Solar Farm;
- (4) Proposed road and driveway improvements;
- (5) Any lots within three hundred (300) feet of a Solar Farm;
- (6) Proposed transmission lines to and from Power Switchyards and/or between lots;
- (7) Proposed signage;
- (8) Methods for dust and erosion control.

All maps and visual representations need to be drawn at an appropriate scale and in accordance with Section 7.23 (Site Plan Review and Approval).

- E. *Environmental Information.* The Applicant shall provide evidence of compliance with the Environmental Siting Considerations as required in this Section.
- F. *Hazardous Waste.* As applicable, the application must include plans for the spill prevention, clean-up, and disposal of fuels, oils, and hazardous wastes.
- G. *Transportation Plan for Construction and Operation Phases.*
  - (1) Proof of an agreement with the County Road Commission, Clinton Township and the Michigan Department of Transportation (if applicable) regarding any construction phase of the project, is required.
  - (2) Plans for maintaining Clinton Township roads used by vehicles during the construction phase of the project. The applicant may have to post a security bond or escrow or irrevocable letter of credit for road maintenance as determined by the Clinton Township Planning Commission.
- H. *Decommissioning Plan.* Attach a decommissioning plan that conforms to the requirements of this Article.
- I. *Complaint Resolution.*
  - (1) The applicant shall submit a detailed, written complaint resolution process developed by the applicant to resolve



complaints from the Township board or the property owners or residents concerning the construction or operation of the Solar Farm. The complaint resolution process must be approved by the Planning Commission as a condition of approval of the special land use permit application.

- (2) The Township board shall appoint a 3-member complaint resolution committee to oversee and participate in all complaint resolution discussions or meetings between the Township property owner or resident and the Industrial Solar Energy Facility owner.
- (3) The complaint resolution committee shall consist of (1) Township board member, (1) Planning Commission member, and (1) qualified elector chosen by the Township Board from the community.
- (4) The Township board shall be kept apprised of all complaints and shall receive a report outlining the issues, the progress, and the resolution of each such complaint.

### **3. Design Standards**

All Solar Farms located within the LSEO District; the Solar Farm must meet the following design standards:

- A. *Maximum Lot Coverage:* The maximum lot coverage ratio for a large solar energy facility, including PV solar panels shall be fifty percent (50%). The size of the facility shall be the total area inside the perimeter fencing and the percentage of coverage shall be the ratio of the area inside the fence relative to the total lot size.
- B. *Maximum Height.* The maximum height for a solar panel shall be fourteen (14) feet. The maximum height of a Power Switchyard shall not exceed the minimum height needed to tie into electric transmission lines. The height of all other buildings and accessory structures shall comply with the maximum building height requirements of the applicable zoning district in which the Solar Farm is located. The height of required lightning rods attached to the Power Switchyard or Solar Farm related equipment shall not be subject to the foregoing height limitations. The height of lightning rods shall be limited to that height necessary to protect the Power Switchyard and Solar Farm equipment from lightning.

C. *Setbacks.* Solar Farm solar panels and other structures shall be set back five hundred feet (500) from all lot lines and public road rights-of-way, or the district setbacks stated in the underlying zoning district, whichever is greater. In addition, Solar Farm solar panels and other structures must be located at least five hundred (500) feet from all lands zoned Residential districts (RA) or Commercial districts (C) and existing residences, unless the lot is comprised of a portion of the lot containing the residence. In addition, Solar Farm solar panels and other structures shall not be located within a fifty foot (50') drain easement. When a Solar Farm comprises of lots of more than one owner, the internal setback shall not apply.

D. *Visual Appearance.*

- (1) Solar Farm buildings and accessory structures shall utilize materials, textures, and neutral colors customary with Solar Farms and that to the extent which is prudent and feasible will blend the facility into the existing environment.
- (2) Lighting of the Solar Farm shall be limited to the minimum necessary, supplied with down lighting, and in no case shall any illumination from such lighting extend beyond the perimeter of the Solar Farm. The Township may require use of a photometric study to make this determination.
- (3) No Solar Farm shall produce glare that would constitute a nuisance to occupants of neighboring properties or to persons traveling neighboring roads. Upon written notice from the Township Building Inspector, or such other person designated by the Township Board, to the owners of the Solar Farm that glare from the Solar Farm is causing a nuisance to occupants of neighboring property or to persons traveling neighboring roads, the owner of the Solar Farm shall have a reasonable time (not to exceed three (3) months) from the date of such notice to remediate such glare.
- (4) Solar Farms shall be screened from any adjacent property that is residentially zoned or used for residential purposes. The screen shall consist of shrubbery, trees, or other non-invasive plant species which provides a visual screen. At least fifty percent (50%) of plants must be evergreen trees, which shall not be less than six (6) feet tall at the time of

planting. In lieu of a planting screen, a decorative fence that is at least fifty percent (50%) opaque may be used.

- (5) Security fencing shall be installed around all electrical equipment related to the Solar Farm including, but not limited to, transformers and transfer stations.

#### **4. Operational Regulations**

All Solar Farms are subject to the following regulations:

##### *A. Drainage Tiles.*

- (1) Prior to construction of solar farm, all existing drainage tile must be inspected by means of robotic camera and the imagery submitted to the Township to establish baseline condition of tile. Any damaged or inoperable tile shall be repaired prior to construction and such repairs shall be documented and a report submitted to the landowner and township indicating the location, nature and satisfactory completion of such repairs. While the solar farm is in operation, all drain tile shall be inspected every three (3) years in the fashion noted above and all video footage and a report of any damage or failure shall be submitted to the Township. Any tile failure shall be corrected within 60 days of discovery and such repairs shall be documented and a report submitted to the landowner and township indicating the location, nature and satisfactory completion of such repairs. The Township reserves the right to have the Building Inspector or other agent present at the time of repair.
- (2) Supports shall be constructed to preserve any drainage field tile and/or drainage system. Any broken/missing field tiles shall be repaired and made in operable condition as soon as possible after damage and/or failure.
- (3) An appropriate maintenance plan, including property maintenance of the grounds, shall be presented to the Planning Commission for review and approval.

##### *B. Access.*

- (1) Security fencing shall be installed around all electrical equipment related to the Solar Farm including, but not limited to, transformers and transfer stations.
  - (2) Appropriate warning signage shall be placed at safe intervals at the entrance and perimeter of the large solar energy facility (Solar Farm).
  - (3) A safety plan shall be in place and updated regularly with the fire department having jurisdiction over the Solar Farm.
- C. *Noise.* No operating Solar Farm shall produce noise that exceeds any of the following limitations.
- (1) Forty (40) Dba Lmax, as measured at the property line of any adjacent Residential or Commercial zoned land in existence at the time the rezoning is approved.
  - (2) Forty (40) Dba Lmax, as measured at any neighboring residence in existence at the time the Solar Farm is granted conditional use approval, between the hours of nine (9) am and seven (7) pm.
  - (3) Forty (40) Dba Lmax, as measured at the lot lines of the project boundary.
  - (4) In addition to the above limitations, a sound barrier of a solid decorative masonry wall or evergreen tree berm, with trees spaced not less than 10 feet apart shall be constructed to reduce noise levels surrounding all inverters, no more than ten (10) feet from all inverters, no less than the height of all inverters and no more than three (3) feet above the height of all inverters.
- D. *Medium Voltage Cable.* All medium voltage cable within the project boundary shall be installed underground at a depth in accordance with current National Electrical Code standards and except for Power Switchyards or the area within a substation. All electrical interconnections and distribution components must comply with all applicable codes and public utility requirements.
- E. *Safety.*

- (1) A fire prevention and emergency response plan shall be in place and updated annually with the township fire department. The plan shall include the following:
  - (a) A description of all emergency response training and equipment needed to safely respond to a fire or other emergency and include an assessment of the training and equipment available to the fire department.
  - (b) A layout or map indicating all access points and routes for emergency responders to safely access all areas of the project. Consideration should be given to any access difficulties such as long continuous rows of panels which would restrict access for emergency responders. The layout shall indicate any structures or devices that may pose a particular danger to emergency responders.
  - (c) A mitigation strategy regarding specific dangers and risks for surrounding property and people during any emergency including a fire.
  - (d) Any other information needed to keep responders and citizens safe during an emergency.
- (2) Every gate shall have a Knox box, coordinated with and to the satisfaction of the township fire department, to allow easy access during an emergency.
- (3) All high-risk areas, such as inverters, shall be equipped with automatic fire suppression systems with automatic system shutdown. Such systems shall be regularly inspected, maintained, and verified according to current industry standards. Should the Clinton Township fire department or Clinton Township electrical inspector be involved in the inspections the applicant will be responsible for the standard fees.
- (4) The township or any emergency service provider who serves the township shall have the authority to order the commercial solar energy system operator to cease operations if they determine there is an emergency that may result in danger to life or property. The operator shall

provide the township with contact information for personnel who will be available at all times should such an emergency arise. Emergency contact information shall also be posted at every entrance to the facility.

**5. Local, State and Federal Permits.**

Solar Farms shall be required to obtain all necessary permits from the Michigan Department of Environmental Quality and any applicable municipal/county or Federal permits.

**6. Agreements/Easements.**

If the Lot on which the project is proposed is to be leased, rather than owned, by the owner of the Solar Farm, 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 owner of the Solar Farm and property owners must be in place prior to commencing construction.

**7. Decommissioning**

With twelve (12) months after the anticipated useful life, or abandonment, or termination of the Solar Farm, the operator of the Solar Farm must:

- A. Remove of all roads, unless the property owner requests otherwise, and all above grade and subsurface improvements.
- B. Reclaim the site with seasonal grasses or to an agricultural ready condition, including but not limited to removal of all gravel and other non-native materials from the site.
- C. Repair to roads for damage caused by the Solar Farm, if any, and within to complete decommissioning and land reclamation.

**8. Bonds.**

- A. As a condition to granting a rezoning, and before any construction is commenced, the owner(s) and/or operator of the Solar Farm shall post a security bond or escrow or irrevocable letter of credit in a form acceptable to the Township equal to one-hundred twenty-five (125) percent of the total estimated decommissioning, code enforcement and reclamation costs. The cost of

decommissioning shall be determined by a third party engineer selected by the Township and paid for by the operator. The cost shall be reviewed by the Township Board every two (2) years to ensure adequate funds are allocated for decommissioning; the security bond or escrow or irrevocable letter of credit, defined herein, shall be appropriately adjusted to reflect the current decommissioning estimate. This security bond or escrow or irrevocable letter of credit shall be issued by a 3rd party and paid by the operator.

- B. The security bond or escrow or irrevocable letter of credit shall be posted and maintained with a company licensed to do business in the State of Michigan or a Federal- or State-chartered lending institution acceptable to the Township.
- C. Any bonding company or lending institution shall provide the Township with 90 days' notice of the expiration of the security bond or escrow or irrevocable letter of credit. Lapse of a valid security bond or escrow or letter of irrevocable credit is grounds for the actions defined below.
- D. In the event of sale or transfer of ownership and/or operation of the Solar Farm, the security bond or escrow or irrevocable letter of credit shall be maintained throughout the entirety of the process and the new owner shall be required to provide a new security bond or escrow or irrevocable letter of credit prior to taking control.
- E. If at any time during the operation of the Solar Farm or prior to, during, or after the sale or transfer of ownership and/or operation of the Solar Farm the security bond or escrow or irrevocable letter of credit is not maintained, the Township may take any action permitted by law, order a cessation of operations, and order removal of all structures and reclamation of the site.

**Section 10. Severability.**

Should any section, subdivision, sentence, clause or phrase of this Ordinance be declared by the Courts to be invalid, the same shall not affect the validity of the Ordinance as a whole or any part thereof other than the part as invalidated.

**Section 11. Publication and Effective Date.**

Publication of this ordinance shall be made by causing a true copy thereof to be inserted once in a newspaper circulating within the Township of Clinton, which insertion shall be made within fifteen (15) days after its passage. This ordinance shall take effect thirty (30) days after publication.

YEAS:

NAYS:

ABSENT:

Ordinance declared adopted on \_\_\_\_\_, 2023

\_\_\_\_\_  
Supervisor



**CERTIFICATION OF ADOPTION AND PUBLICATION**

I, \_\_\_\_\_, the duly elected Township Clerk, certify that the foregoing ordinance was properly enacted by the township board of the Township of Clinton, Lenawee County, Michigan on \_\_\_\_\_, 2023 and that it was published in the \_\_\_\_\_ on \_\_\_\_\_, 2023.

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Township Clerk for the  
Township of Clinton