

ADRIAN TOWNSHIP LENAWEE COUNTY, MICHIGAN
SOLAR ORDINANCE

An ordinance to amend Article VI of the Adrian Township Zoning Ordinance by adding Section 6.49 regarding large solar energy facilities (Solar Farms) within the Township; adding Section 6.50 regarding small solar energy facilities; and addition of associated definitions to Article 2.

The Township of Adrian ordains:

Section 1. Amendment to Article 6

Article 6, Special Provisions, of the Adrian Township Zoning Ordinance is amended by adding Section 6.49, Large Solar Energy Facility, as follows:

6.49 Large Solar Energy Facility (Solar Farm)

The purpose of this Section is to establish minimum requirements and regulations for the siting, installation, operation, repair, decommissioning, and removal of large solar energy facilities (hereafter referred to as Solar Farms), as defined in Section 2.2, while promoting the safe, effective, and efficient use of such energy facilities as a conditional use in specified zoning districts. The following requirements shall apply to all Solar Farms:

A. Location. All Solar Farms are limited to the Agricultural (RA) and Industrial (M) districts.

B. Regulations and design standards. All Solar Farms shall comply with the following minimum regulations and design standards.

1. Design Standards

a. Minimum Lot Size. No Solar Farm shall be erected on any Zoning Lot less than twenty (20) acres in size (as defined in Section 2.2).

b. Maximum Height. The maximum height for a solar panel shall be four-teen (14) feet. The maximum height of a Power Switchyard (as defined in Section 2.2) 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, as listed in Article 4. 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 facilities and related structures and components shall be set back a minimum of thirty feet (30) from all lot lines. In addition, Solar Farm solar arrays and other structures must be located at least three hundred (300) feet from the road right-of-way along M-52; one hundred fifty (150) feet from the road right-of-way along all other roadways, public and private; and one hundred fifty (150) feet from any lot line adjacent to all existing Residential (R), Urban Residential (R-1), and Multiple-Family Residential (R-2) District land and any lot line adjacent to an existing residence at the time the Solar Farm is granted conditional use approval, unless the zoning lot is comprised of a portion of the lot containing the residence. Additional setbacks may be required to mitigate noise and glare impacts, or to provide for designated road or utility corridors, as identified through the review process.

d. Safety/Access

(1) Security fencing shall be installed around the Solar Farm as follows: fencing to be a minimum of six (6) feet and a maximum of eight (8) feet in height; fencing to be located inside the perimeter of

screening, if any. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.

(2) Appropriate warning signage shall be placed at the entrance and perimeter of the Solar Farm.

e. **Noise.** No component of any Solar Farm shall produce noise that exceeds any of the following limitations. Adequate setbacks shall be provided to comply with these limitations.

(1) Fifty (50) dBA, as measured at the property line of any adjacent Residential (R), Urban Residential (R-1), and Multiple-Family Residential (R2) District zoned land in existence at the time the Solar Farm is granted conditional use approval.

(2) Forty-five (45) dBA, as measured at any neighboring residence in existence at the time the Solar Farm is granted conditional use approval, between the hours of nine p.m. and seven a.m.

(3) Sixty (60) dBA, as measured at the lot lines of the project boundary.

f. Visual Appearance

(1) Solar Farm buildings and accessory structures shall, to the extent reasonably possible, use materials, colors, and textures that will blend the Solar Farm into the existing environment.

(2) The perimeter of Solar Farm facilities shall also be screened and buffered by installed evergreen vegetative plantings whenever existing natural forest vegetation does not otherwise continuously obscure the Solar Farm's entire lot perimeter from adjacent parcels, subject to the following requirements:

(a) Unless screened and buffered at all times by natural forest vegetation having a substantially similar obscuring effect of an evergreen vegetative buffer installed pursuant to this Section, a continuous evergreen vegetative buffer shall be installed and maintained at all times at the perimeter of all Solar Farms.

(b) The evergreen vegetative buffer shall be composed of evergreen trees or shrubs that at planting shall be a minimum of six (6) feet in height. The evergreen trees or shrubs shall be spaced no more than ten (10) feet apart on center (from the central trunk of one plant to the central trunk of the next plant). Within five (5) years of planting, required evergreen vegetative screening shall be no less than fifteen (15) feet tall.

(c) Failure to continuously maintain the required evergreen vegetative buffer shall constitute a violation of this Ordinance and sufficient grounds for revocation of any conditional use permit previously granted.

(d) An alternate screening method may be considered for approval by the Planning Commission as long as it has a substantially similar obscuring effect of an evergreen buffer.

(e) If the Solar Farm is not visible from any road and if the Solar Farm is not visible from any existing residence, the screening requirements may be modified at the discretion of the Planning Commission.

(3) 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. A photometric study may be used to make this determination.

(4) 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 Zoning Administrator, 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 6 months) from the date of such notice to remediate such glare.

g. **Medium Voltage Cable.** All medium voltage cable (as defined in Section 2.1) within the project boundary shall be installed underground, unless determined otherwise by the planning commission because of severe environmental constraints (e.g. wetlands, cliffs, hard bedrock), and except for Power Switchyards (as defined in Section 2.2) or area within a substation. All electrical interconnections and distribution components must comply with all applicable codes and public utility requirements.

2. Local, State and Federal Permits. A Solar Farm shall be required to obtain all necessary permits from the Michigan Department of Environmental Quality and any applicable municipal, county, state, or Federal permits.

3. Agreements/Easements. If the Zoning Lot (as defined in Section 2.2) 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, unless specified otherwise by the conditional use permit.

C. Permit Applications. An application for a special use permit to establish a Solar Farm must include a complete description of the project and documentation to sufficiently demonstrate that the requirements set forth in Section 6.49.B.1 will be met. Supporting documentation for addressing the review criteria of Section 6.49.D and Article 6 (special provisions) is also to be provided. The planning commission and township board may require any information reasonably necessary to determine compliance with this ordinance. The application must also be accompanied by detailed site plans, drawn to scale and dimensioned and certified by a registered engineer licensed in the State of Michigan, displaying the following information:

1. All lot lines and dimensions, including a legal description of each lot or parcel comprising the Solar Farm.
2. Names of owners of each lot or parcel within Adrian Township that is proposed to be within the Solar Farm.
3. Vicinity map showing the location of all surrounding land uses.
4. Location and height of all proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing, and all above-ground structures and utilities associated with a Solar Farm
5. Horizontal and vertical (elevation) to scale drawings with dimensions that show the location of the proposed solar array(s), buildings, structures, electrical tie lines and transmission lines, security fencing and all above ground structures and utilities on the property.
6. Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the Solar Farm and within 1,000 feet of the outside perimeter of the Solar Farm.
7. Proposed setbacks from the solar array(s) to all existing and proposed structures within the Solar Farm.
8. Land elevations for the solar array(s) location and the relationship to the land elevations of all existing and proposed structures within the Solar Farm.
9. Access driveways within and to the Solar Farm, together with a detailed narrative regarding dimensions, composition, and maintenance of each proposed driveway. All access drives shall be subject to Lenawee County Department of Transportation approval, and shall be planned so as to minimize the use of lands for that purpose.
10. Planned security measures to prevent unauthorized trespass and access and to warn of potential dangers during the construction, operation, removal, maintenance or repair of the Solar Farm.
11. A written description of the maintenance program to be used for the solar array(s) and other components of the Solar Farm, including decommissioning and removal when determined by the Township to be obsolete, uneconomic, or abandoned. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the Solar Farm becomes obsolete, uneconomic or abandoned.
12. A copy of the manufacturer's safety measures.
13. Planned lighting protection measures.

14. Additional detail(s) and information as required by the conditional use permit requirements of the Zoning Ordinance, or as required by the Planning Commission.

It is preferred that any related special use permit applications for substations or new transmission lines be considered in conjunction with the special use permit application for the Solar Farm; however, if the details of those improvements are not available at the time of application for the Solar Farm, they may be considered later, through subsequent special use permit 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 Solar Farm.

Due to the complexity of Solar Farm projects, the Township may require a development agreement or other appropriate instrument to address taxing, property assessment, de-commissioning bond, and other related issues not addressed by this Section. A development agreement may be required as a condition of the permit, and must be approved by the Township Board prior to commencing construction.

D. Provisions for Special use permit review. In addition to the standards set forth for special use approval in Article 6, additional consideration shall be given to the following:

1. Project Rationale. Project rationale, including estimated construction schedule, project life, phasing, and likely buyers or markets for the generated energy.

2. Siting Considerations. Siting considerations, such as avoiding areas/locations with a high potential for biological conflict such as areas of environmental concern, parks, trails, special management areas or important wildlife habitat or corridors; avoiding visual corridors that are prominent scenic viewsheds; avoiding areas of erodible slopes and soils, where concerns for water quality, land-slide, severe erosion, or high storm runoff potential have been identified; and, avoiding known sensitive historical, cultural or archeological resources.

3. Wildlife Habitat Areas and Migration Patterns. Specifically include information on any use of the site by endangered or threatened species and whether the project is in a biologically significant area. If threatened or endangered species exist in the area, consultation with the Michigan Departments of Natural Resources and Environmental Quality will be necessary.

4. Environmental Analysis. The planning commission may require an analysis of impacts to historic, cultural and archaeological resources, soil erosion (water and wind), flora, and water quality and water supply in the area, when there is reason to believe that adverse impacts to such may occur.

5. Hazardous Waste. As applicable, the application must include plans for the spill prevention, clean-up, and disposal of fuels, oils, and hazardous wastes.

6. Transportation Plan for Construction and Operation Phases. Proof of an agreement with the Lenawee County Department of Transportation and the Michigan Department of Transportation (if applicable) regarding any construction phase of the project is required.

7. Public Safety. Identify and address any known or suspected potential hazards to adjacent properties, public roadways, communities, aviation, etc., that may be created by the project.

8. Decommissioning Plan. Describe the decommissioning and final land reclamation plan to be followed after the anticipated useful life, or abandonment, or termination of the project, including evidence of proposed commitments with affected parties (i.e., Township, any lessor or property owner, etc.) that ensure proper final reclamation of the Solar Farm. Among other things, revegetation and road repair activities should be addressed in the plan. Under this plan, all structures and facilities shall be removed, including any structures below-grade, and removed offsite for disposal. No concrete, piping and other materials may be left in place. The ground must be restored to its original condition within 180 days.

E. Application Escrow Account. An escrow account shall be deposited with the Township by the applicant when the applicant applies for a conditional use permit for a Solar Farm. 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 use permit review and

approval process, which costs shall include, but are not limited to, reasonable fees of the Township Attorney, 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. Such escrow amount shall be in addition to any filing or application fees established by resolution. At any point during the review process, the Township may require that the applicant 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 promptly, the review process shall cease unless and until the applicant makes the required additional escrow deposit.

F. Decommissioning Escrow Account. If a special use permit is approved pursuant to this section, the Township shall require security in the form of a cash deposit, or surety bond acceptable to the Township, which will be furnished to the Township in order to ensure full compliance with this section and all conditions of approval. When determining the amount of each required security, the Township may also require an annual escalator or increase based on the Consumer Price Index (or the equivalent or its successor). Such financial guarantee shall be deposited or filed with the Township Clerk after a special use permit has been approved but before construction commences on the Solar Farm. At a minimum, the financial security shall be in an amount determined by the Township to be reasonably sufficient to restore the property to its previous condition prior to construction and operation of the Solar Farm. Such financial security shall be kept in full force and effect during the entire time that the Solar Farm exists or is in place, and such financial security shall be irrevocable and non-cancelable.

G. Code Compliance. Construction of a Solar Farm shall comply with the National Electric Safety Code and any applicable State Building Codes as a condition of any special use permit under this section.

H. Certified Solar Array Components. Components of a Solar Farm 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 acceptable to the Township.

I. Solar Access. The Township makes no assurance of solar access other than the provisions contained within this Section. The applicant may provide evidence of covenants, easements, or similar documentation for abutting property owners providing access to solar energy for the operation of a Solar Farm.

Section 2. Amendment to Article 5

Article 5, General Provisions, of the Adrian Township Zoning Ordinance is amended by adding Section 5.13, Small Solar Energy Facility, as follows:

Section 5.13 – SMALL SOLAR ENERGY FACILITY.

Notwithstanding other provisions of this Section of the Ordinance, 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.

A. All Small Solar Energy Facilities are subject to the following minimum requirements:

1. 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.
2. A small solar energy facility connected to the utility grid shall provide written authorization from the local utility company to Adrian Township acknowledging and approving such connection.
3. 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.

4. A ground mounted facility shall not exceed a height of fourteen (14) feet.

5. The surface area of a ground mounted facility, regardless of the mounted angle, shall be calculated as part of the overall lot coverage.

6. A ground mounted facility or facility attached to an accessory building shall not be located within the required front yard setback.

7. 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.

8. All mechanical equipment associated with and necessary for the operation of the small solar energy facility shall comply with the following:

a. Mechanical equipment 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. In lieu of a planting screen, a decorative fence meeting the requirements of Section 4.12 and that is at least fifty per-cent (50%) opaque may be used.

b. Mechanical equipment shall not be located within the minimum front yard setback of the underlying zoning district.

c. Mechanical equipment for ground-mounted facilities shall comply with the setbacks specified for principal structures in the underlying zoning district.

9. Solar panels shall be placed such that concentrated solar radiation or glare shall not be directed onto nearby properties or roadways.

10. All power transmission lines from a ground mounted small solar energy facility to any building or other structure shall be located underground.

11. 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.

12. 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.

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.

13. The small solar energy facility shall comply with all applicable Township ordinances and codes so as to ensure the structural integrity of such facility.

14. 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.

B. 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.

C. 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.

D. **Solar Access.** The Township makes no assurance of solar access other than the provisions contained within this Section. The applicant may provide evidence of covenants, easements, or similar documentation for abutting property owners providing access to solar energy for the operation of a solar energy facility.

Section 3. Amendment to Article 2

Article 2 of the Adrian Township Zoning Ordinance is amended by adding the following definitions to Section 2.2:

Solar Energy Facility: An energy generating facility consisting of one or more solar panels and associated equipment including, but not limited to:

A. **Large Solar Energy Facility (Solar Farm).** A Solar Farm is a utility-scale facility that converts sunlight into electricity by photovoltaics (PV) or experimental solar technologies. Any ground-mounted facility that covers more than 10,000 square feet is included in this definition.

B. **Small Solar Energy Facility.** A small solar energy facility is accessory to a principal residential or small business use and converts sunlight into electricity by photovoltaics (PV) or experimental solar technologies. The sale and distribution of excess available energy shall be incidental and not the primary purpose of the facility. For ground-mounted facilities, the total area covered by solar arrays shall not exceed 10,000 square feet.

C. **Photovoltaics (PV).** A technology that converts light directly into electricity.

D. **Power Switchyard.** The structure needed to tie the solar energy facility to electric transmission lines.

E. **Medium Voltage Cable.** 34.5 kV lines which provide electricity to homes.

...

Zoning Lot. Provided that the owner(s) of any number of contiguous lots, or contiguous portions of lots, may have as many of said contiguous lots, or contiguous portions of lots, considered as a single lot for the purpose of this Ordinance as he/she so elects, and in such case the outside perimeter of said group of lots or portions of lots shall constitute the front, rear, and side lot lines thereof. This definition shall apply only to the siting of a Solar Farm.

Section 4. Severability

If any section, subsection, subparagraph, sentence, clause, phrase, or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions of this ordinance.

Section 5. Repeal

All ordinances or parts of ordinances in conflict with this Ordinance are repealed.