

August 7, 2023 **London township Solar ordinance**

ZONING ORDINANCE NO. LONDON TOWNSHIP AMENDMENTS AS OF SOLAR
WORKSHOP DATE AMENDMENT TO LONDON TOWNSHIP ZONING
ORDINANCE (ADOPTED {DATE})

At a regular meeting of the Township Board of London Township, Monroe County, Michigan, held at the London Township Hall on _____, 20__, at _____ p.m., Township Board Member _____ moved to adopt the following Ordinance, motion was seconded by Township Board Member _____: An Ordinance to amend the London Township Zoning Ordinance to authorize Large Solar Energy Systems as a special use in the Commercial districts and to establish standards for this use.

THEREFORE, THE TOWNSHIP BOARD OF THE TOWNSHIP OF LONDON, MONROE COUNTY, MICHIGAN, ORDAINS:

SECTION 1. AMENDMENT TO ZONING ORDINANCE ARTICLE 3, SECTION 3.02:
Zoning Ordinance, Article 3, is amended to add “Large Solar Energy System” to the LAND USE TABLE as a Special Use under the section titled OTHER USES. Zoning Ordinance, Article 3, is further amended to add “Electric substations, collector lines, and interconnection transmission or distribution lines, that are accessory to the special use of a Large Solar Energy System” to the LAND USE TABLE as an Accessory Use in all Commercial zoning districts under the section titled OTHER USES. Solar projects are prohibited on properties under Public Act 116 of 1974 Conservation Easement Agreements.

SECTION 2. AMENDMENT TO ZONING ORDINANCE ARTICLE 18, SECTION 18.02:
Zoning Ordinance, Article 18, Section 18.02, is amended to add definitions for the following terms, and shall read as follows: Large Solar Energy System. A utility-scale solar energy system in which the principal use of the land is to generate electric energy or other energy by converting sunlight, whether by Photovoltaic Devices or other conversion technology, for the sale, delivery or consumption of the generated energy with a capacity greater than one megawatt (MW). Photovoltaic Device. A system of components that generates electric energy from incident sunlight by means of the photovoltaic effect, whether or not the device is able to store the electric energy produced for later use. Solar Array. Any number of Photovoltaic Devices connected to provide a single output of electric energy.

SECTION 3. AMENDMENT TO ZONING ORDINANCE ARTICLE 11, SECTION 11.04:
Zoning Ordinance, Article 11, is amended to add Section 11.04, entitled “Large Solar Energy Systems,” providing as follows:

Section 11.04 Large 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 Large Solar Energy Systems.

1. Large Solar Energy Systems are permitted by special use in Commercial zoning districts.

B. Site Plan Drawing and Supporting Materials: All Special use applications for a Large Solar Energy Systems use must be accompanied by detailed site plans, drawn to scale and dimensioned and certified by a registered professional engineer licensed in the State of Michigan, displaying the following information:

1. All requirements for a site plan contained in Article 12 of the London Township Zoning Ordinance.
2. Copy of valid certified survey by a licensed surveyor in the State of Michigan
3. All lot lines and dimensions, including a legal description of each lot on which the Large Solar Energy System is proposed to be located along with adjacent owners, names and addresses outside of the Large Solar Energy System
4. Names of owners of each lot or parcel within the Large Solar Energy System project as purposed in all municipalities encompassed. The site plan will include a drawing that shows all parcels with owners' names.
5. Vicinity map showing the location of all surrounding land uses.
6. Location and height of all existing and proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing, and all above ground structures and utilities associated within a Large Solar Energy System.
7. Horizontal and vertical (elevation) NAVD 88 Datum 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 which the Large Solar Energy System is proposed to be located.
8. Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the Large Solar Energy System and within three hundred (300) feet of all exterior lot lines on parcel(s) which the Large Solar Energy System is proposed to be located.
9. Proposed dimensions from the Solar Array(s) to all existing and proposed structures on parcels on which the Large Solar Energy System is proposed to be located.
10. Land elevations for the Solar Array(s) location and the relationship to the land elevations of all existing and proposed structures within the Large Solar Energy System at a minimum of one (1) foot contours.
11. Dimensions, composition, and maintenance schedule of access driveways within, and to the Large Solar Energy System shall be provided. All access drives, and entrances shall be subject to Monroe County Road Commission and / or Michigan Department of Transportation, approval.

12. Planned security measures to prevent unauthorized trespass and access during the construction, operation, removal, maintenance or repair of the Large Solar Energy System.

13. A written description of the maintenance program to be used for the Solar Array and other components of the Large Solar Energy System, including decommissioning and removal. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the Large Solar Energy System is decommissioned.

14. Require an annual report of projects energy output and a minimum energy output in kilowatts/ megawatts. Include the projected total life of the entire solar array. Written description of the operational life of the Solar Array(s) proposed and other components of the Large Solar Energy System submitted to the Township Building Department for distribution.

15. Planned lightening protection measures.

16. Photometric Plan is required.

17. Additional detail(s) and information as required by the special use requirements of the London Township Zoning Ordinance, or as required by the Planning Commission.

18. Drainage; All drains are to be maintained and applicant will provide a drainage and drain tile mitigation plan. The Reclamation plan will include a drain mitigation plan. Construction will not impact neighboring property drainage. Plan must be formally reviewed and approved by the Monroe County Drain Commissioner's office.

19. Hours of construction and general maintenance will be Monday through Friday 7:00 am. to 6:00 pm., Saturday 7:00 am. to 12:00 pm. No Sundays, no holidays as defined by township holiday calendar (excluding emergencies).

20. Lease agreement or memorandum of Lease with property owners must be on file with the Township. Proof of insurance that the company is protecting the property owners from liability and reclamation cost. Terms of the decommission and responsibility of to be included in the lease.

21. Project company is responsible for all personal property taxes. Project Company is responsible for property taxes due to increased property value any changes in property classification or zoning.

C. Application Escrow Account: Require an irrevocable letter of credit listing the municipality as the Beneficiary of funds by the Applicant when the Applicant applies for a special use for a Large Solar Energy System. The monetary amount deposited by the Applicant in a Letter of credit (or Bond, escrow etc. as discussed with legal consultation) with the Township shall be in a dollar amount to be determined by Township Planning Commission with consultation of the

Township engineer, to cover all reasonable costs and expenses associated with the special use application 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 special use application 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 Letter of Credit needs replenishing and the Applicant refuses to do so within thirty (30) days, the special use application process shall cease unless and until the Applicant makes the required additional escrow deposit. Any 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 Letter of Credit after approval of the special use application shall be returned in a timely manner to the Applicant. The value of the letter of credit is to be adjusted and increased based on the annual rate of inflation.

D. Compliance with the State of Michigan Building Codes (MBC) and National Electric Safety Code: Construction of a Large Solar Energy System shall comply with the National Electric Safety Code and Michigan State Construction Codes (as shown by approval by the London Township Building Official, or London Township Building Inspector) as a condition of any special use under this section.

E. Certified Solar Array Components: Components of a Solar 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. Registered professional engineer stamp on equipment and structural design. Project must meet current adopted State of Michigan building codes. Professional engineer must approve that the soil borings will structurally support the design of the collection array.

F. Height: Maximum height of a Solar Array, other collection device, components, or buildings of the Large Solar Energy System, excluding substation and electrical transmission equipment and lines, shall not exceed twelve (12) feet (as measured from the natural grade at the base at installation at any time or location on the property. Substation and electrical transmission equipment shall not exceed one hundred (100) feet in height.

G. Lot Size: A Large Solar Energy System shall be located on parcels of ten (10) acres or greater.

H. Setbacks: A minimum setback distance of three hundred (300) feet from all lot lines, existing public roads, and railroad rights-of-way to be measured from the full operating width of the Solar Panel Array of the Large Solar Energy System.

1. Setback shall be three hundred (300) feet from all lot lines.
2. Fencing shall be setback thirty (30) feet from all non-participating lot lines, existing public roads and railroad rights-of-way.
3. The evergreen or native vegetative buffer at time of planting shall be setback fifteen (15) feet from all non- participating lot lines, existing public roads and railroad rights-of-way.

I. Lot Coverage: A Large Solar Energy System will be a maximum of 20% of parcel coverage.

J. Screening/Security: A Large Solar Energy System shall be completely enclosed by perimeter security fencing to restrict unauthorized access in accordance with Federal guidelines. Such fencing shall be at least seven (7) feet in height. Use of razor or barbed wire, electrified fences, spikes, and similar security materials shall be prohibited. The perimeter of Large 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 Large Solar Energy System from adjacent residential structures, subject to the following requirements:

1. The Large Solar Energy Systems shall be exempt from the Screening and Land Use Buffers requirements of Article 8.
2. The evergreen or native vegetative buffer shall be composed of native or evergreen trees expected to reach a mature height equal to the height of the Solar Panel Array at maximum tilt, and be a minimum of four (4) feet in height at the time of planting. Shrubs shall be minimum two (2) feet in height. The evergreen trees shall be spaced no more than fifteen (15) feet apart on center (from the central trunk of one plant to the central trunk of the next plant), native trees shall be placed no more than thirty (30) feet apart on center and shrubs shall be spaced no more than seven (7) feet apart on center. All unhealthy and dead material shall be replaced by the Applicant within one (1) year, or the next appropriate planting period, whichever occurs first with like vegetation of equal height of existing planting.
3. Groundcover in buffer screening area to include pollinator varieties when it does not interfere with the establishment and maintenance of the tree and shrub plantings.
4. All plant materials shall be installed between March 15 and November 15. If Applicant is unable to plant during the installation period, the Applicant will provide the Township with a letter of credit, 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.
5. Require twice a year inspection by an approved arborist of the vegetation screening regarding the health and management. As growth of the vegetative screening matures only annual inspection are required. An annual report shall be submitted to the Township.

6. Failure to install or continuously maintain the required vegetative buffer shall constitute a violation of this Ordinance and any special use may be subject to revocation.

K. Signage: No advertising or non-project related graphics shall be on any part of the Solar Arrays or other components of the Large Solar Energy System. This exclusion does not apply to entrance gate signage or notifications containing points of contact or any and all other information that may be required by authorities having jurisdiction for electrical operations and the safety and welfare of the public.

L. Noise: No component of any Large Solar Energy System shall emit noise exceeding forty-five (45) dBA LMAX as measured at either the exterior lot line or at the existing ROW line. These limitations do not apply to construction, decommissioning or repairs to the Large Solar Energy System.

M. Lighting: All lighting for parking lots, driveways, external illumination of buildings, or the illumination of signs shall be directed away from and be shielded from adjacent properties and shall be so arranged as to not adversely affect driver visibility on adjacent public roads.

N. Glare Study: An analysis by a third-party qualified professional to determine if glare from the SES will be visible from nearby residents and roadways. If required, the analysis shall consider the changing position of the sun throughout the day and year, and its influence on the SES.

O. Location of Solar Array(s) and related facilities: Solar Array(s) shall be permitted only in the Commercial districts with special approval. Electric substations, collector lines, and interconnection transmission or distribution lines, that are accessory to the special use of a Large Solar Energy System, shall be permitted in all Commercial zoning districts as an Accessory Use as included in Article 3 of this Ordinance.

P. Distribution, Transmission and Interconnection: All collection lines and interconnections from the Solar Array(s) to any electrical substations shall be located and maintained underground inside the Large Solar Energy System, except in areas where technical or physical constraints make it preferable to install equipment above ground. This requirement excludes transmission equipment meant to connect the project substation to the local transmission system.

Q. Abandonment and Decommissioning: Following the operational life of the project, the Applicant shall perform decommissioning and removal of the Large 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 use. Under this plan, all structures, concrete, piping, facilities, and other project related materials above grade and any structures up to forty-two (42) inches below-grade shall be removed and taken off site for disposal. Any Solar Array or combination of Photovoltaic Devices that is not operated for a continuous period of twelve (12) months shall be considered abandoned and shall be removed, and taken offsite under the decommissioning plan. The ground must be restored to its original topography within three hundred sixty-five (365) days of abandonment or decommissioning. Restoration shall also include bringing soil to its pre-development composition to ensure

agricultural use upon restoration. Soil tests shall be required as a part of the Decommissioning Plan both before development and prior to decommissioning. Soil test must be performed in the same manner as the most recent soil test to the time of application. If no soil test exists prior to application for Special Use, soil testing must be performed in acre grids equal to twenty-five (25) percent net land area. Soil shall be brought back to predevelopment state within three hundred sixty-five (365) days of abandonment or decommissioning.

1. The applicant will obtain a surety bond for reclamation in an amount to be determined by the Township Engineer as a condition of site plan approval.
2. The Township Engineer will be able to review the size of the parcel(s) and the number of solar panels that will be installed. The amount of the surety bond would fluctuate depending on the size of the farm. The applicant will provide confirmation and details of the surety bond. This may be a condition of site plan approval.
3. The surety bond is to remain in place for the length of the leases/contracts with consideration for the rate of inflation to the time of decommissioning.
4. Recycling of solar panels: during decommission, maintenance, or replacement of solar panels the recycling or disposal of components is prohibited within the township.

R. General Standards: The Planning Commission shall not approve any Large Solar Energy System special use unless it finds that all of the general standards for special uses contained in Article 12 of this Ordinance are met.

S. Approval Time Limit and Extension: Special use and Site Plan approvals, under this Section, shall be valid for one (1) year beginning on the date of approval by the Planning Commission. Once commenced, should construction cease for a period of twelve (12) consecutive months, the special use and Site Plan approvals shall be considered null and void. If construction has begun prior to the expiration date established by Planning Commission approval, the special use and Site Plan approvals shall remain in force as long as construction continues toward a reasonable date of completion. However, if requested by the Applicant prior to the expiration date established on the approval of the Planning Commission, the applicant may submit an application to revise the approved site plan for the Planning Commission to consider an additional one-year period upon showing of good cause for the extension.

T. Conditions and Modifications: Any conditions and modifications approved by the Planning Commission shall be recorded in the Planning Commissions' meeting minutes. The Planning Commission may, in addition to other reasonable conditions, require landscaping, walls, fences and other improvements that are reasonable in relation to and consistent with the nature of the applicable or adjacent zoning districts. After approval, at least two (2) copies of the final approved Site Plan shall be signed and dated by the Chair of the Planning Commission and authorized representative of the Applicant. One copy shall be kept on file by the Township Clerk, and one copy shall be returned to the Applicant's authorized representative.

U. Inspection: The Township shall have the right at any reasonable time, to provide a twenty-four (24) hour notice prior to the desired inspection to the Applicant to inspect the premises on which any Large Solar Energy System is located. The Zoning Administrator, code enforcement officer or designated representative of the Township shall make up to four (4) inspections of the Large Solar Energy System per calendar year, to ensure conformance with the requirements of this Ordinance. The applicant shall pay an inspection fee for such inspections pursuant to the fee schedule established by the Township Board. Inspections must be coordinated with, and escorted by, the Applicant's operations staff at the Large Solar Energy Facility to ensure compliance with the Occupational Safety and Health Administration (OSHA), National Electrical Safety Codes (NESC) and all other applicable safety guidelines.

V. Maintenance and Repair: Each Large Solar Energy System must be kept and maintained in good repair and condition at all times. If the Zoning Administrator, Code Enforcement Officer, Building Inspector, Building Official or designated representative of the Township determines that a Large Solar Energy System is in violation of the requirements of this Ordinance and the special use approval, or that it poses a safety hazard, they shall provide notice to the Applicant requesting the violation and/or safety hazard be corrected. If, after a reasonable correction period (not to exceed 7 days), the violation(s) and/or safety hazards are not corrected, the Applicant is entitled to a hearing before the Township Board. If the Township Board determines that the safety hazard requires that the Large Solar Energy System must be shut down, Applicant shall immediately shut down the Large Solar Energy System and not operate, start or restart the Large Solar Energy System until the issues have been resolved. Applicant shall keep a maintenance log on the Solar Array(s), which shall be available for the Township's review within 48 hours of such request. Applicant shall keep all sites within the Large Solar Energy System neat, clean and free of refuse, waste or unsightly, hazardous or unsanitary conditions.

W. Roads: Any material damages to a public road located within the Township resulting from the construction, maintenance or operation of a Large Solar Energy System shall be repaired at the Applicant's expense. In addition, the Applicant shall submit to the Monroe County Road Commission, and/or MDOT 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 Monroe County Road Commission and/or MDOT requirements regarding the use and/or repair of County or State roads.

X. Transfer of Ownership/Operation: Prior to a change in ownership or operator of a large solar energy system, including but not limited to, by the sale or lease of that system or underlying property, the current owner or operator shall provide written notice to the township at least sixty (60) days prior to that change becoming effective. This notice shall inform the township of the intended transfer of control of the large solar energy system, and shall include a copy of the instrument or agreement effecting that transfer. Such instrument or agreement shall include an express statement that the new owner or operator of the large solar energy system shall not be permitted to operate that system until compliance with the terms of this ordinance has been established. New owners and operators must assume all financial guarantee to Township.

Y. Continuing Security: If any Large Solar Energy System is approved for construction under this Section, Applicant shall post a decommissioning security prior to the start of construction (in a mutually agreed upon form) for an amount necessary to accomplish the work specified in the decommissioning plan as agreed upon by the Planning Commission and Applicant. The amount shall be reasonably sufficient to restore the property to its previous condition prior to construction and operation of the Large Solar Energy System. Such financial security shall be kept in full force and effect during the entire time that the Large Solar Energy System exists or is in place, and such financial security shall be irrevocable and non-cancelable.

Z. Continuing Obligations: Failure to keep any required financial security in full force and effect at all times while a Large Solar Energy System exists or is in place shall constitute a violation of the special use and this Ordinance, and will subject the Large 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 Use approval.

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

Solar DEFINITIONS: to be added to SECTION 18.02, definition section of the London Township Zoning Ordinance.

Accessory Ground-Mounted Solar Energy System: A ground-mounted solar energy system with the purpose primarily of generating electricity for the principal use on the site.

Building-Integrated Solar Energy System: A solar energy system that is an integral part of a primary or accessory building or structure (rather than a separate mechanical device), replacing or substituting for an architectural or structural component of the building or structure. Building-integrated systems include, but are not limited to, photovoltaic or hot water solar energy systems that are contained within roofing materials, windows, skylights, and awnings.

Dual Use: A solar energy system that employs one or more of the following land management and conservation practices throughout the project site:

Pollinator Habitat: Solar sites designed to meet a score of 76 or more on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites. Alternatively, the Tier 2 Pollinator Scorecard developed by the Rights-of-Way as Habitat Working Group can be used to evaluate pollinator habitat and management practices.

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).

Forage for Grazing: Solar sites that incorporate rotational livestock grazing and forage production as part of an overall vegetative maintenance plan.

Agrivoltaics: Solar sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.

Ground-Mounted Solar Energy System: A solar energy system mounted on support posts, like a rack or pole, that are attached to or rest on the ground.

LMAX : Maximum Sound Level, descriptor is the highest sound level measured during a single noise event, in which the sound level changes as time goes on.

Maximum Tilt: The maximum angle of a solar array (i.e., most vertical position) for capturing solar radiation as compared to the horizon line.

Minimum Tilt: The minimal angle of a solar array (i.e., most horizontal position) for capturing solar radiation as compared to the horizon line.

NESC: National Electrical Safety Codes.

Non-Participating Lot(s): One or more lots for which there is not a signed lease or easement for development of a principal-use SES associated with the applicant project.

Participating Lot(s): One or more lots under a signed lease or easement for development of a principal-use SES associated with the applicant project.

Photovoltaic (PV) System: A semiconductor material that generates electricity from sunlight.

Principal-Use Solar Energy System: A commercial, ground-mounted solar energy system that converts sunlight into electricity for the primary purpose of off-site use through the electrical grid or export to the wholesale market.

Principal-Use (Large) Solar Energy System: A Principal-Use SES generating more than 20 MW DC for the primary purpose of off-site use through the electrical grid or export to the wholesale market [see discussion in “Land-Use Considerations” on why this number is suggested, and why it might warrant tailoring to your community’s land-use typologies].

Principal-Use (Small) Solar Energy System: A Principal-Use SES generating up to and including 20 MW DC for the primary purpose of off-site use through the electrical grid or export to the wholesale market.

Repowering: Reconfiguring, renovating, or replacing an SES to maintain or increase the power rating of the SES within the existing project footprint.

Roof-Mounted Solar Energy System: A solar energy system mounted on racking that is attached to or ballasted on the roof of a building or structure.

ROW: Right of way.

Solar Array: A photovoltaic panel, solar thermal collector, or collection of panels or collectors in a solar energy system that collects solar radiation.

Solar Carport: A solar energy system of any size that is installed on a structure that is accessory to a parking area, and which may include electric vehicle supply equipment or energy storage facilities. Solar panels affixed on the roof of an existing carport structure are considered a Roof-Mounted SES.

Solar Energy System (SES): A photovoltaic system or solar thermal system for generating and/or storing electricity or heat, including all above and below ground equipment or components required for the system to operate properly and to be secured to a roof surface or the ground. This includes any necessary operations and maintenance building(s), but does not include any temporary construction offices, substation(s) or other transmission facilities between the SES and the point of interconnection to the electric grid.

Solar Thermal System: A system of equipment that converts sunlight into heat.

Weed: Native or non-native plant that is not valued in the place where it is growing.

Wildlife-Friendly Fencing: A fencing system with openings that allow wildlife to traverse over or through a fenced area.

I, _____, do hereby certify that I am the duly elected and acting Township Clerk of the Township of London, and I do hereby certify that this Ordinance was adopted by the Township Board of the Township of London, Monroe County, Michigan, at a regular meeting of the Township Board held at the London Township Hall, London, Michigan, on the _____ day of _____, 20__.

THE TOWNSHIP BOARD, LONDON TOWNSHIP, COUNTY OF MONROE, STATE OF MICHIGAN By: _____, London Township Clerk AUTHENTICATED: _____ London Township Supervisor