

MACON TOWNSHIP
LENAWEE COUNTY, MICHIGAN
ORDINANCE NO. 2020-

An ordinance amending and readopting Article VII of the Macon Township Zoning Ordinance by replacing Section 7.03 regarding solar energy facilities within the Township; Article VIII and XIII by adding large solar energy facilities (Solar Farms) to the listings of special land uses in the Agricultural (AG) and Industrial (I) Districts; and Article XX by the replacing, deleting, and adding to the associated definitions.

The Township of Macon ordains:

Section 1. Amendment to Article VII

Article VII of the Macon Township Zoning Ordinance is amended by replacing Section 7.03, Solar Energy Facility, as follows:

Section 7.03. SOLAR ENERGY FACILITY. Sunlight is utilized to generate energy through a facility consisting of one (1) or more solar devices under common ownership or operational control. Such a facility may include, but not be limited to, substations, cables/wires and other buildings and accessory structures whose main purpose is to supply energy on-site or to off-site customer(s):

- A. LARGE SOLAR ENERGY FACILITY (SOLAR FARM). The purpose of this Subsection is to establish minimum requirements and regulations for the placement, construction and modification of large solar energy facilities (Solar Farms), as defined in Section 20.01.78.25a, while promoting the safe, effective, and efficient use of such energy facilities as a special land use in specified zoning districts.
 - 1 Location. All large solar energy facilities (Solar Farms) are limited to the Agricultural (AG) and Industrial (I) districts.
 - 2 REGULATIONS AND DESIGN STANDARDS. All large solar energy facilities (Solar Farms) shall comply with the following minimum regulations and design standards.
 - a. DESIGN STANDARDS.
 - (1) MINIMUM LOT SIZE. No large solar energy facility (Solar Farm) shall be erected on any Zoning Lot less than twenty (20) acres in size (as defined in Section 20.01.91).
 - (2) LOT COVERAGE.
 - (a) Ground mounted solar panels, including the mounted angle, shall not be calculated as part of the overall lot coverage.

- (b) All buildings, including substation buildings, shall be calculated as part of the overall lot coverage
- (3) **MAXIMUM HEIGHT.** The maximum height for a solar panel shall be fourteen (14) feet. The maximum height of a Power Switchyard (as defined in Section 20.01.75.25.d) 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 XV. 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.
- (4) **SETBACKS.** Large solar energy facility (Solar Farm) solar arrays and other structures shall be set back thirty feet (30) from all lot lines and public road rights-of-way, or the district setbacks stated in Article XV, whichever is greater. In addition, large solar energy facility (Solar Farm) solar arrays and other structures must be located at least one hundred (100) feet from all existing R-1 Single Family, R-2 Single Family, and RM Multiple Family and Manufactured Housing Residential District land and existing residences at the time the Solar Farm is granted special land use approval, unless the zoning lot is comprised of a portion of the lot containing the residence.
- (5) **SAFETY/ACCESS.**
 - (a) Security fencing shall be installed around the Solar Farm in conformance with the Section 4.12, with the following exceptions: (i) non-ornamental fencing is acceptable; (ii) perimeter fencing around the Solar Farm shall not exceed seven (7) feet; and (iii) perimeter fencing around the Power Switchyard shall not exceed eight (8) feet. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.
 - (b) Appropriate warning signage shall be placed at the entrance and perimeter of the large solar energy facility (Solar Farm).
- (6) **NOISE.** No operating large solar energy facility (Solar Farm) shall produce noise that exceeds any of the following limitations.

- (a) Fifty (50) dBA, as measured at the property line of any adjacent R-1 Single Family Residential, R-2 Single Family Residential, and RM Multiple Family and Manufactured Housing Residential zoned land in existence at the time the Solar Farm is granted special land use approval.
- (b) Forty-five (45) dBA, as measured at any neighboring residence in existence at the time the Solar Farm is granted special land use approval, between the hours of nine (9) p.m. and seven (7) a.m.
- (c) Sixty (60) dBA, as measured at the lot lines of the project boundary.

(7) VISUAL APPEARANCE.

- (a) Large solar energy facility (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.
- (b) Landscaping and/or screening materials in the manner provided in this Section 7.03.A.2.a(68J(b) shall be required to help screen large solar energy facility (Solar Farm) buildings and accessory structures from adjacent lots containing residences in existence at the time of special land use approval. At least fifty percent (50%) of the Solar Farm perimeter adjacent to lots containing residences in existence at the time of special land use approval shall be screened. The Solar Farm shall be screened using berms, fencing, vegetation, and like materials. At least fifty percent (50%) of vegetative screening shall be evergreen. Vegetation used to screen the Solar Farm shall be planted every ten (10) feet on center at a planting height of four (4) feet with a height at maturity of not less than six (6) feet and width not less than ten (10) feet. Any fence used to screen the Solar Farm shall be at least fifty percent (50%) opaque and must meet the fencing requirements of Section 4.12. Adjacent residential lots that are a part of the acreage of any Zoning Lot where the Solar Farm is located are not required to be landscaped or screened as otherwise required by this Section.

- (c) Lighting of the large solar energy facility (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.
 - (d) No large solar energy facility (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 twelve (12) months) from the date of such notice to remediate such glare.
 - (e) Perennial vegetative ground cover must be maintained or established in all areas containing solar arrays to prevent erosion and manage run-off.
- (8) MEDIUM VOLTAGE CABLE. All medium voltage cable (as defined in Section 20.01.75.25.e) within the project boundary shall be installed underground at a depth not required to be greater than four (4) feet below grade, 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 20.01.75.25.d) or area within a substation. All electrical interconnections and distribution components must comply with all applicable codes and public utility requirements.
- b. LOCAL, STATE AND FEDERAL PERMITS. A large solar energy facility (Solar Farm) shall be required to obtain all necessary permits from the Michigan Department of Environmental Quality (see Section 7.03.A.4.b) and any applicable municipal/county or Federal permits.
 - c. AGREEMENTS/EASEMENTS. If the Zoning Lot (as defined in Section 20.01.91) 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 special land use permit.

- 3 PERMIT APPLICATIONS. An application for a special land use permit to establish a large solar energy facility (Solar Farm) shall include a complete description of the project and documentation to sufficiently demonstrate that the requirements set forth in Section 7.03.A.2.a will be met. Supporting documentation for addressing the review criteria of Section 7.03.A.4 and Section 16.06 (required standards and findings for making a special land use determination) is also to be provided. The planning commission and/or township board may require any information reasonably necessary to determine compliance with this ordinance.

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

The Planning Commission and/or Township Board shall have the authority to hire a third-party plan reviewer to verify completeness of the application, provide plan review comments to the applicant, and provide a report to the Planning Commission on whether the application complies with Section 7.03.A.2.a and whether the application included documentation that addresses the standards set forth in Section 7.03.A.4 and Section 16.06.. Applicant shall pay into its escrow with the Township all fees and costs incurred by the third-party plan reviewer in connection with its plan review.

Prior to issuance of the construction permit, the Township shall require as a condition of special land use approval that the owner of the Solar Farm and Township enter into a decommissioning agreement setting forth a Decommissioning Plan as required by Section 7.03 A.4.h, secured by a bond to secure removal of the Solar Farm in the event the use is terminated and abandoned for a period of twelve (12) months. The amount of the bond shall be determined based upon the reasonable cost of land reclamation to seasonal grasses or to an agricultural ready condition, removal, and the salvage value of the Solar Farm.

- 4 PROVISIONS FOR SPECIAL LAND USE PERMIT REVIEW. In addition to the standards set forth for special land use approval in Section 16.06, the Solar Farm shall comply with the following standards:

- a. SOLAR FARM DESCRIPTION. The application for the Solar Farm 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. **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.
- c. **SITE PLANS.** Site plans shall identify (1) all Zoning Lots in the Solar Farm, and as to each Zoning 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 (j) regulated wetlands, (k) regulated floodplains, (l) regulated and endangered species, and (m) regulated lakes, streams or ponds; (2) required setbacks; (3) access routes to Zoning Lots that are a part of the Solar Farm; (4) proposed road improvements; (5) any lots within three hundred (300) feet of a large solar energy facility (Solar Farm); (6) proposed transmission lines to and from Power Switchyards and/or between Zoning Lots; (7) proposed signage; and (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 17.05 (required data for detailed site plan).
- d. **ENVIRONMENTAL INFORMATION.** The applicant shall provide evidence of compliance with the Environmental Siting Conditions as required in this Section.
- e. **HAZARDOUS WASTE.** As applicable, the application must include plans for the spill prevention, clean-up, and disposal of fuels, oils, and hazardous wastes.
- f. **TRANSPORTATION PLAN FOR CONSTRUCTION AND OPERATION PHASES.** Prior to the commencement of construction of the Solar Farm, an agreement with the County Road Commission, and the Michigan Department of Transportation (if applicable) regarding any construction phase of the project is required.

- g. OTHER REQUIRED STANDARDS. Proof of compliance with the "required standards and finding for making determination" found in Section 16.06 must also be provided.
 - h. DECOMMISSIONING PLAN. Describe the decommissioning and final land reclamation plan to be followed after the anticipated useful life, or abandonment, or termination of the large solar energy facility (Solar Farm), including evidence of proposed commitments with property owners to ensure proper final reclamation of the Solar Farm with seasonal grasses or to an agricultural ready condition if required by the property owner, repairs to roads for damage caused by the Solar Farm, if any, and within twelve (12) months from the notice of abandonment issued by the Township to complete decommissioning and land reclamation.
- B. 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 20.01.78.25b) shall be required to have appropriate building permits.
- 1 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 Macon 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 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 percent (50%) opaque may be used.
 - (2) Mechanical equipment shall not be located within the minimum front yard setback of the underlying zoning district.
 - (3) 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.

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.

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

C. 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 2. Amendment to Article VIII

Article VIII of the Macon Township Zoning Ordinance is amended by adding large solar energy facilities (Solar Farms) to the listing of Special Land Uses (Section 8.03) in the Agricultural District, as follows:

Section 8.03. SPECIAL LAND USES. The following special land uses shall be permitted subject to the standards hereinafter imposed and the provisions of Article XVI.

- 36. Large Solar Energy Facilities (Solar Farms), subject to regulations contained in Section 7.03.

Section 3. Amendment to Article XIII

Article XIII of the Macon Township Zoning Ordinance is amended by adding large solar energy facilities (Solar Farms) to the listing of Special Land Uses (Section 8.03) in the Industrial District, as follows:

Section 13.03. SPECIAL LAND USES. The following special land uses shall be permitted subject to the standards hereinafter imposed and the provisions of Article XVI.

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- 36. Large Solar Energy Facilities (Solar Farms), subject to regulations contained in Section 7.03.

Section 4. Amendment to Article XX

Article XX of the Macon Township Zoning Ordinance is amended by deleting text under the definition for Lot (Section 20.01.49), replacing the definitions under Solar Energy Facility (Section 20.01.78.25), and adding a definition for Zoning Lot (Section 20.01.91):

Section 20.01.49. LOT: A lot is a piece or parcel of land occupied or intended to be occupied by a building and any accessory buildings or by any other use or activity permitted thereon and including the open spaces and yards required under this Ordinance, and having its frontage upon a public street or road either dedicated to the public or designated on a recorded subdivision.

- a. LOT, DEPTH: The depth of a lot is the mean horizontal distance from the center of the front street line to the center of the rear lot line. In the case of a lakefront line. In the case of an acreage parcel, it is from the front right-of-way line to the rear lot line.

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Section 20.01.78.25. 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 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. 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.

Section 20.01.91. ZONING LOT. Provided that the owner(s) or lessee 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 Zoning Lot for the purpose of this Ordinance as the owner(s) or lessee 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.

Section 5. 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 6. Repeal

All ordinances or parts of ordinances in conflict with this Ordinance are repealed.10