

LOCKE TOWNSHIP
Ingham County, Michigan

ORDINANCE #2022-02

AN ORDINANCE TO AMEND THE 2005 LOCKE TOWNSHIP ZONING ORDINANCE, AS AMENDED, TO REVISE REGULATIONS PERTAINING TO SOLAR ENERGY SYSEMS INCLUDING DEFINITIONS OF TERMS AND PHRASES, APPLICATION REQUIREMENTS, AND SITE DEVELOPMENT STANDARDS.

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Section 1.

The 2005 LOCKE TOWNSHIP ZONING ORDINANCE, as amended, is amended by the deletion of Line 5 and Line 6 under “Other Uses Not Listed Above” in Table 10-2 of Article 10, and the insertion of a new Line 5 to read as follows:

	PRINCIPAL USES	ZONING DISTRICTS & PERMITTED PRINCIPAL USES					
		“BR” = Use Permitted by Right “S” = Special Land Use “- -” = Prohibited Use					
		A-1	R-1	R-2	R-3	R-M F	R- MHC
	Other Uses not Listed Above						
5	Solar Energy Systems, Large. ²	S	--	--	--	--	--

Section 2.

The 2005 LOCKE TOWNSHIP ZONING ORDINANCE, as amended, is amended by the deletion of Footnote 2 of Table 10-2 of Article 10, and the insertion of a new Footnote 2 to read as follows:

“2. Large Solar Energy Systems are permitted in the A-1 District provided that in the case of a Large SES that principally provides electricity to the regional utility grid and not to uses on the land occupied by the Large SES, at least fifty percent (50%) of the facility shall be located within one (1) mile of the electric transmission line to which the SES is to attach to supply electricity to the utility grid. See Sec. 14.24 regarding authorization of “Medium” and “Small” Solar Energy Systems including systems accessory to dwellings.”

Section 3.

The 2005 LOCKE TOWNSHIP ZONING ORDINANCE, as amended, is amended by the deletion of Line #4 and Line #5 under “Other Uses Not Listed Above” in Table 10-3 of Article 10, and the deletion of the corresponding Footnote 2.

Section 4.

The 2005 LOCKE TOWNSHIP ZONING ORDINANCE, as amended, is amended by the deletion of the Article 29 phrases and corresponding definitions under “Solar Energy Systems (SES)” and the insertion of the following in their place:

“Solar Energy System (SES): See Section 14.24 for definitions pertaining to solar energy systems.”

Section 5.

The 2005 LOCKE TOWNSHIP ZONING ORDINANCE, as amended, is amended by the deletion of Section 14.24 and the insertion of the following in its place:

Section 14.24 Solar Energy Systems (SES)

A. Definitions: For the purpose of this Section and Ordinance, the following phrases shall have the following corresponding definitions.

1. **Solar Energy System (SES):** A system consisting of a device or combination of devices, structures or parts thereof, that collect, transfer or transform solar radiant energy into thermal, chemical or electrical energy, excluding systems that substantially rely on mirrors or similar technologies to focus solar radiant energy onto a considerably smaller area and are sometimes referred to as “concentrated solar power” systems or “CSP” systems.
2. **Small Solar Energy System (Small SES):** A SES located on the same lot as the use served by the SES and which relies on ground mounted collection systems that occupy no more than two thousand (2,000) sq. ft. of combined roof and/or land area, including access aisles between solar panels. A Small SES is typically intended to serve a single residential unit, agricultural operation, or other business.
3. **Medium Solar Energy System (Medium SES):** A SES located on the same lot as the use served by the SES and which relies on ground mounted collection systems that occupy more than two thousand (2,000) sq. ft. but not more than ten thousand (10,000) sq. ft. of combined roof and land area, including access aisles between solar panels. A Medium SES is typically intended to produce energy for use in association with multiple dwellings and/or businesses on a single lot.
4. **Large Solar Energy System (Large SES):** A solar energy system that relies on ground mounted collection systems that occupy more than ten thousand (10,000) sq. ft. of combined roof and land area, including access aisles between solar panels. A Large SES is typically intended to produce energy for use principally in association with multiple dwellings and/or businesses on a single lot on which the system is located and/or for use by off-lot properties and persons including in association with energy utility providers.
5. **Solar Collection Panels:** Panels and tiles comprised of semiconductor devices and typically referred to as photovoltaic cells, which collect and convert solar energy directly into electricity. Ground mounted solar collection panels are panels attached to the ground by a pole, metal frame or other similar support structure.

B. Authorization, Review and Approval Procedures

1. **Small SES:** A Small SES requires a land use permit and is permitted only as an accessory use to the principal use of the lot and is authorized in all districts. The Zoning Administrator shall be the approving body for a Small SES. An application for a Small SES shall be accompanied by a plot plan prepared according to Section 3.04(B) including the delineation of all SES structures, equipment, and other facilities and equipment.
2. **Medium SES:** A Medium SES requires a land use permit and is permitted only as an accessory use to the principal use of the lot and is authorized in all districts except in Residential Districts. Medium SES are subject to site plan approval according to Article 4 except that if the principal use of the lot constitutes a special land use, the approval process for the Medium SES shall be subject to the special land use review and approval provisions of Article 5.
3. **Large SES:** A Large SES constitutes a special land use, requires a land use permit, and is subject to the special land use review and approval provisions of Article 5 including site plan review according to Article 4. A Large SES is a permitted principal use of a lot in those districts as specified in Table 10-2 of Article 10. A Large SES may function as an accessory use to the principal use of the lot, and only in the A-1, B-1, and I-1 Districts.

C. General Standards

1. **Buildings:** Unless provided elsewhere in this Section, all buildings part of a SES shall comply with the standards of Table 10-4 of Article 10.
2. **Structures:** Unless provided elsewhere in this Section, all structures that do not constitute buildings shall comply with the accessory structure standards of Section 28.11.
3. **Glare/Radiation:** SES collection panels shall be designed and placed such that concentrated solar radiation or solar glare shall not be directed onto nearby properties and public roads or otherwise interfere with air traffic in and out of local airports. The applicant shall submit documentation to verify compliance with this section. When deemed necessary, the designated approving body may require a report from a registered civil engineer or other professional deemed qualified by the approving body, attesting to the glare and radiation impact on nearby properties, public roads, and air traffic.

4. Yard Restrictions:
 - a. In the case of a ground mounted Small SES, there shall be no restrictions on the yards in which any portion of the SES may be located provided that Small SES ground mounted panels and support equipment that exceed a cumulative ground area of one hundred (100) sq. ft., or exceed six (6) feet in height, and are in a front yard, shall be screened according to subsection (12).
 - b. No above-ground portion of a Medium or Large SES shall be in a front yard. In the case of a lot that does not include a building not otherwise part of the SES, the front yard shall be construed to extend from the front lot line to a distance equal to the required setback according to subsection (5).
5. Panel Setbacks:
 - a. Small SES ground-mounted collection panel systems and associated equipment shall comply with the setback standards for accessory structures according to Section 28.11.
 - b. Medium SES ground-mounted panels and associated equipment shall be set back from all property lines the same distance as required for the principal building on the property according to Table 10-4 but shall be a minimum of fifty (50) feet where the respective yard is adjacent to a lot in a Conservation or Residential District.
 - c. Large SES ground-mounted panels and associated equipment shall be set back from all property lines the same distance as required for the principal building on the property according to Table 10-4, provided that where the respective yard is adjacent to a lot in a Conservation or Residential District, the minimum setback shall be one hundred (100) feet from shared lot lines, two hundred (200) feet from an existing dwelling on an adjacent lot, and two hundred (200) feet from any dwelling currently under construction and for which a land use permit has been issued.
 - 1) In the case of a Large SES that exceeds an area of 50,000 sq. ft., the approving body may reduce the specified minimum setback by twenty-five percent (25%) where the adjacent property is vacant and not likely to be developed within the next five (5) years based on nearby development trends during the preceding five (5) years, where natural features are present that serve to assist in the screening of the panel(s) such as existing topographic or vegetative conditions, where existing structures will assist in the screening of the panel(s), and/or where other conditions may be present that make the above specified setback unnecessary.
6. Panel Heights: The following panel height restrictions shall apply, based on the panel in its most vertical tilt feasible according to the design features of the support system.
 - a. Small SES ground-mounted collection panel systems shall not exceed fifteen (15) feet in height as measured from the ground below.
 - b. Medium SES ground-mounted panels shall not exceed fifteen (15) feet in height as measured from the ground below.
 - c. Large SES ground-mounted panels shall not exceed twelve (12) feet in height as measured from the ground below.
7. Maximum Lot Coverage: The calculation of lot coverage for ground-mounted SES shall be one-half (1/2) of the total land area devoted to the SES facility, including inverters and substations but exclusive of vegetated aisles that may exist between panel arrays, divided by the area of the lot on which the SES or portion thereof is located. Maximum lot coverage shall comply with Table 10-4 of Article 10 except that the maximum lot coverage for a Large SES shall not exceed fifty percent (50%).
8. Lighting: No SES exterior lighting shall be erected except upon satisfactory evidence that such lighting is necessary for the proper operation or security of the facility. No light may adversely affect adjacent lots. All lighting shall be shielded from adjoining lots, and light poles are restricted to eight (8) feet in height from the ground except upon satisfactory evidence that a greater height is necessary, no reasonable alternatives are available, and the greater height shall not create nuisance conditions.
9. Fencing: In the case of Medium SES and Large SES, a fence of a minimum eight (8) feet in height shall be erected to prevent access by the public to any solar panels and other facility equipment, with locked gates, and shall include "danger" signage. The requirements of this subsection supersede the provisions of Section 28.19.
10. Roof-Mounted Systems: Roof-mounted SES may exceed the maximum height standard for the structure to which it is attached according to the District in which it is to be located, but no portion of the system shall extend more than five (5) feet above the roof surface to which it is attached directly below.
11. Abandonment: If a ground mounted SES ceases to operate or is abandoned for six (6) months, or is deemed by the Building Inspector to be unsafe or not consistent with the building code, the applicant shall repair and restore the system to good working order within a reasonable time set by the Zoning Administrator or otherwise remove the system in its entirety including posts, equipment, panels, foundations and other features and restore the ground to its preconstruction state. Restoration of the site shall be completed within one hundred eighty (180) days of the applicant's initiation of decommissioning or after the Zoning Administration notifies the applicant in writing of a determination of abandonment,

except that the Zoning Administrator may extend the restoration time frame to no more than one (1) year should seasonal conditions necessitate additional time to complete the restoration.

12. **Screening:** In the case of a ground mounted solar panel(s) located on a lot that is adjacent to a lot in a Conservation or Residential District, where the panels are to be located within one hundred (100) feet of a shared lot line with such lot, the panels shall be screened from view from such lot. The screening shall consist of one (1) evergreen tree per twenty (20) linear feet of panel length and such trees shall be spaced no greater than twenty-five (25) feet apart measured on-center. Trees shall be a minimum height equal to fifty percent (50%) of the height of the panel(s). Required screening need not be in the immediate area of the panels that the plantings are intended to screen if the planting locations provide for the intended screening effect. No tree shall be located within five (5) feet of a lot line. All plant material shall be maintained in a healthy condition to provide the necessary screening, shall be permitted to grow according to its natural habit, and shall be replaced upon death or disease.
 - a. The designated approving body for the SES may permit a maximum fifty percent (50%) reduction in the number and size of tree plantings where the adjacent property is vacant and not likely to be developed within the next five (5) years based on nearby development trends during the preceding five (5) years, where natural features are present that serve to assist in the screening of the panel(s) such as existing topographic or vegetative conditions, where existing structures will assist in the screening of the panel(s), and/or where other conditions may be present that make typical screening requirements ineffective or otherwise unnecessary.

D. Minor Accessory Solar Energy Systems: Solar energy systems that do not exceed four (4) square feet in total solar collector panel area, intended to provide energy to operate a device to which such panel is attached or otherwise part of, such as in the case of a solar panel powering an exterior light or an attic fan, are permitted in all districts and may be erected without the issuance of a land use permit.

1. **Setbacks:** No setback restrictions shall apply.
2. **Heights:** Self-contained solar energy systems shall comply with the height restrictions applicable to accessory structures in the respective District except that in the case of a roof-mounted system, no portion of the system attached to the roof shall exceed three (3) feet above the roof surface below.

E. Exempt Solar Energy Systems: Minor accessory solar energy systems permitted by subsection (D), and roof-mounted solar energy systems, shall not be subject to the issuance of a land use permit but shall comply with the requirements and standards of this Section including subsection (C).

F. Additional Submittal Requirements for Medium and Large SES: In the case of an application for a Medium or Large SES, the following information shall be provided in addition to the information required by Article 4 for site plan review and Article 5 for special land use applications.

1. **Project Description and Rationale:** Description of the SES including type, size, rated power output, reflection and glare protection measures, safety and noise characteristics, construction time frame and phases, project life, likely markets for the generated energy, and possible future expansions.
2. **Operator's Agreement:** The operator's agreement, which shall set forth the operations parameters, the name and contact information of the certified operator, inspection protocol, emergency proceedings, and general safety documentation.
3. **Analysis of Traffic:** An assessment of anticipated traffic to the SES during construction phases and once the SES is operational, including the anticipated daily vehicles by frequency and type during construction and after construction.
4. **Visual Impacts:** A graphic presentation of the visual impact using photos or renditions of the project with consideration given to the tree plantings and setback requirements.
5. **Wildlife:** A review of the real and potential impacts on wildlife on the site and in the surrounding area, prepared by a wildlife biologist certified by the Wildlife Society or other qualified professional found acceptable by the Township Board.
6. **Lighting:** Description of the extent of exterior lighting to be installed including locations, heights, fixture specifications, light levels along property lines, and the frequency of lights to be illuminated.
7. **Transportation Plan:** An access plan during construction and operational phases including the proposed SES service road system and ingress and egress points onto public roads.
8. **Public Safety:** A description of the public health and safety risks the SES may present and measures to address such risks including emergency and standard shutdown procedures, and any security measures that may be employed to manage access to the facility by the public.
9. **Telecommunications Interference:** Description of the extent to which the SES may interfere with wireless communications within one (1) mile of the SES, or otherwise alter electromagnetic field conditions.
10. **Power:** Identify how the SES will connect to the power grid.

11. Glare: A report prepared by a qualified person with documented training, certification and/or licensing in glare associated with SES including training in the use of computer software designed to assess glare potential, attesting to the glare and radiation impact on nearby properties, public roads, and air traffic, and verifying compliance with this Section.
12. Project Duration, Decommissioning, and Reclamation: A decommissioning plan addressing the manner in which all SES features shall be removed, and the manner in which the site shall be reclaimed to its former condition. The decommissioning plan shall include a detailed description of the financial security guaranteeing removal of the system and which shall be posted at the time of receiving a land use permit for the facility. The security shall be in a form as required by Section 3.06 except where the Township Board approves an acceptable alternative method. The amount of such guarantee shall be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments. The estimate shall be prepared by the engineer for the developer, shall present a detailed basis for the estimate including estimated hours and costs for labor and equipment, and shall be subject to Township Board approval.
13. Environmental Impact: A report that demonstrates that the proposal shall not have a significant adverse effect on area avian, bat and other wildlife and wildlife habitats including wetlands and nesting and migratory and feeding patterns, and shall identify all proposed mitigation measures to minimize potential impacts. The report shall be a separately bound document prepared by a certified wildlife biologist and the report shall document such certification and pertinent expertise of all persons contributing to the report and the procedures followed for documenting nesting, migratory and feeding patterns.
 - a. The above-referenced report shall include documentation regarding the proposal's compliance with the federal Endangered Species Act of 1973 and the Michigan Natural Resources and Environmental Protection Act (1994 PA 451, MCL 324.101 et seq.), including but not limited to:
 - 1) Part 31 Water Resources Protection (MCL 324.3101 et seq.),
 - 2) Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et seq.),
 - 3) Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.),
 - 4) Part 303 Wetlands (MCL 324.3030 1 et seq.),
 - 5) Part 365 Michigan Endangered Species Protection (MCL. 324.36501 et seq.),

Section 6.

The remaining provisions of the 2005 Locke Township Zoning Ordinance and all amendments thereto are hereby unchanged and reaffirmed.

Section 7.

The provisions of this ordinance are hereby declared to be severable and if any clause, sentence, word, section or provision is declared void or unenforceable for any reason by any court of competent jurisdiction, it shall not affect any portion of this ordinance other than said part or portion thereof.

Section 8.

This amending ordinance shall be effective seven (7) days after adoption and publication as provided by law.

CERTIFICATION

State of Michigan
County of Ingham

I, Glenda Turner, the duly elected, qualified and acting clerk of the Township of Locke, Ingham County, State of Michigan, do hereby certify as follows:

1. The foregoing is a true and complete copy of Ordinance #2022-02 adopted by the Locke Township Board at a regular meeting on August 9, 2022.
2. The foregoing Ordinance was moved for adoption by _____, seconded by _____, and adopted by the following vote: Yes: _____ No: _____.
3. The Township Board members voted as follows:
 Yes: _____
 No: _____
 Abstaining: _____ Absent: _____
4. A public hearing on the proposed Zoning Ordinance amendments was held by the Locke Township Planning Commission on May 17, 2022.
5. Ordinance #2022-02 and the record of publication were duly recorded in the Book of Ordinances of the Township of Locke and is available for public use and inspection at the office of the Locke Township Clerk.
6. The foregoing Ordinance was published on the ____ day of August, 2022, in The Enterprise, a newspaper of general circulation in the Township of Locke.
7. An attested copy of the foregoing Ordinance was filed with the Ingham County Clerk on the ____ day of _____, 2022.

Glenda Turner, Clerk Date