

**INGHAM TOWNSHIP
INGHAM COUNTY, MICHIGAN**

ORDINANCE NO. ____

**ORDINANCE AMENDING THE INGHAM TOWNSHIP ZONING ORDINANCE
TO REGULATE SOLAR ENERGY SYSTEMS**

At a meeting of the Township Board of Ingham Township, Ingham County, Michigan, (“Township”) held at the Township Hall on _____, 2024 at ____ p.m., Township Board Member _____ moved to adopt the following ordinance, which motion was seconded by Township Board Member _____.

An Ordinance to amend the Ingham Township Zoning Ordinance to define and regulate the development and use of Solar Farm Energy Systems, Small Solar Energy Systems, and other Solar Energy Systems within the Township.

THE TOWNSHIP OF INGHAM ORDAINS:

ARTICLE 1: AMENDMENT TO ARTICLE TWO, SECTION 202 OF THE ZONING ORDINANCE. Section 202 of the Ingham Township Zoning Ordinance (the “Township Zoning Ordinance”) shall be amended to add the following definitions:

1. Solar Energy System, Abandoned: Any solar energy system that remains nonfunctional or inoperative to the extent that it is not used to generate electric energy for a continuous period of 18 months will be considered abandoned and subject to abandonment and decommissioning proceedings.
2. Ancillary Solar Equipment. Any accessory or device as part of a solar energy system that does not require direct access to sunlight for operation, such as batteries, electric meters, converters, or water heater tanks.
3. Decommission. To remove or retire a solar energy system from active service and restore associated lands to a substantially similar condition to pre-development or other condition approved by the Township.
4. Nameplate Capacity. The designed full-load sustained generating output of an energy facility. Nameplate capacity shall be determined by reference to the sustained output of an energy facility even if components of the energy facility are located on different parcels, whether contiguous or noncontiguous.
5. Repowering. Replacing significant project components such as solar arrays with the intent of extending the project’s useful life in lieu of decommissioning the project.

6. Roof-Mounted 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.
7. Utility-Scale Solar Energy System. A solar energy system intended to distribute electricity via a utility with a nameplate capacity of over fifty (50) megawatts. [Note, current ordinance has this at a small 1 megawatt per day. Could create distinctions for farm scale or community solar, i.e. it generates energy for the local grid (like the Village) but not for the national grid.)

ARTICLE 2 AMENDMENT TO ARTICLE 402, TO SECTION 402.13 SOLAR ENERGY SYSTEMS. The Township Zoning Ordinance Article 4 is amended to modify Section 402.13, entitled “Solar Energy Systems” subsection C and shall read as follows

C. Utility-Scale Solar Energy Systems.

- a. Purpose and Intent: The purpose and intent of this subsection is to establish standards for the siting, installation, operation, repair, decommissioning and removal of Solar Farm Energy Systems as a Special Land Use. All Solar Farm Energy Systems require a Special Land Use Permit and site plan approval.
- b. Appropriate Districts: Solar Farm Energy Systems shall be permitted by special use permit in the Agricultural Enterprise District and the Industrial District.
- c. Site Plan Drawing and Supporting Materials: All applications for a Utility-Scale Solar Energy System must be accompanied by detailed site plans, drawn to scale and dimensioned and certified by a registered engineer licensed in the State of Michigan, displaying or containing the following information (in documents separate from the site plan drawings when appropriate), in addition to the information required for other special use permits:
 - i. *Site Plan*. A site plan.
 - ii. *Application Escrow*. An application escrow account, which shall be funded by the applicant when an applicant applies for a special land use permit for a utility-scale solar energy system. The monetary amount placed by the applicant in escrow with the Township shall be estimated by the Township to cover all reasonable costs and expenses associated with the special land use permit review and approval process (including site plan review), which costs include, but are not limited to, reasonable fees of a Township attorney, planner, and/or engineer, as well as costs for any other outside consultants

or reports or studies that the Township determines are reasonably related to the zoning review process for a particular application. Such escrow amount shall be in addition to any non-refundable application fees determined by the Township. At any point during the zoning review process, the Township may require that the applicant place additional monies in escrow with the Township should the existing escrow amount filed by the applicant be insufficient. If the escrow account needs replenishing and the applicant refuses to do so within 45 days, the zoning review and approval process shall cease until and unless the applicant makes the required escrow deposit. Such application escrow shall be held by the Township Treasurer in a separate bank account, and upon completion of Township zoning review, all excess escrow funds must be returned to an applicant without interest.

- iii. *Contact Information.* The complete name, address, and telephone number of the applicant.
- iv. *Vicinity Map.* Vicinity map showing the location of all surrounding land uses.
- v. *Construction Plan.* The planned date for the start of construction and the expected duration of construction.
- vi. *Project Description.* A description of the utility-scale solar energy system, including:
 - 1. The location and a description of the utility-scale solar energy system.
 - 2. A description of the anticipated effects of the utility-scale solar energy system on the natural environment, natural resources, and solid waste disposal capacity, which may include records of consultation with relevant state, tribal, and federal agencies.
 - 3. 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 the Solar Farm Energy System.
 - 4. . Horizontal and vertical (i.e. elevation) 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.
 - 5. Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the Solar Farm Energy System and within 1,000 feet of the outside perimeter of the Solar Farm Energy System.

6. Proposed setbacks from the Solar Array(s) to all boundary lines and all existing and proposed structures within the Solar Farm Energy System.
7. Additional information required by the Township as it relates to the site plan.
- vii. *Expected Use*. A description of the expected use of the utility-scale solar energy system.
- viii. *Expected Benefits*. Expected public benefits of the proposed utility-scale solar energy system.
- ix. *Environment and Natural Resources*. The expected direct impacts of the proposed utility-scale solar energy system on the environment and natural resources, including impacts to avian wildlife and wildlife migration due to fenced areas, and how the applicant intends to address and mitigate these impacts.
- x. *Public Health and Safety*. Information on the effects of the proposed utility-scale solar energy system on public health and safety.
- xi. *Consultations*. Evidence of consultation, before submission of the application, with the Michigan Department of Environment, Great Lakes, and Energy and other relevant state and federal agencies before submitting the application, including, but not limited to, the Department of Natural Resources and the Department of Agriculture and Rural Development.
- xii. *Agricultural Lands Analysis*. Each applicant must commission and submit a study at their own expense, on the impacts of the utility-scale solar energy system on prime farmland with the Township, including whether such a system will result in the conversion of any prime farmland, whether such land may be simultaneously used for animal grazing and/or farming in addition to housing the system, the availability of other prime farmland to support the Township's farms and the economic impact of conversion of such prime farmland on the Township. Such study shall indicate how: (1) an applicant selected the project location and layout in a manner that minimizes impacts to prime farmland and utilizes project lands for, if applicable, continued agricultural activities; and (2) how project restoration and decommissioning plans enable project lands that were prime farmland or used for agricultural purposes to still be prime farmland or suitable for agricultural purposes. Applicants shall ensure that any utility-scale solar energy system sited on lands used for agricultural purposes or prime farmland can be maintained and returned to a state to continue to be used for agricultural purposes after project decommissioning and all costs associated with such maintenance and restoration of lands back to a state

suitable to continue agricultural purposes or to still be considered prime farmland is included in any decommissioning security submitted to the Township.

- xiii. *Alternative Locations.* If the proposed site of the utility-scale solar energy system is undeveloped land or on prime farmland, a description of feasible alternative developed locations, including, but not limited to, vacant industrial property and brownfields and lands not as better suited for agricultural production, and an explanation of why they were not chosen.
- xiv. *Interference.* If the utility-scale solar energy system is reasonably expected to have an impact on television signals, microwave signals, agricultural global position systems, military defense radar, radio reception, or weather and doppler radio, a plan to minimize and mitigate that impact.
- xv. *Drainage.* The applicant shall submit to the Township a report with images of all existing drainage tiles to establish a baseline condition of the tile. To preserve agricultural drainage and to manage stormwater, an applicant must further: (1) submit an approved stormwater management plan for the utility-scale solar energy system that is approved by the Ingham County Drain Commissioner; (2) submit a required drain tile maintenance plan for the life of the system that ensures the restoration and maintenance of any agricultural drain tile affected by a project; (3) ensure modifications to lands hosting a utility-scale solar energy system do not adversely impact neighboring agricultural drainage infrastructure; and (4) must restore all public and private drainage systems (including agricultural drain tile) at decommissioning to allow drainage to occur consistent with pre-construction conditions, including, but not limited to, pre-construction conditions that provide for agricultural uses of properties. All requirements to restore public and private drainage infrastructure as required by this section must be accounted for in the value of any decommissioning security posted by an applicant.
- xvi. *Fire and Emergency Response.* A fire response plan and an emergency response plan must specifically reference the equipment and training necessary for local emergency responders to respond to emergencies, including fires, that could occur on project lands. The applicant should identify any training and/or equipment it will provide local first responders should they lack sufficient resources to respond to an emergency at the project.
- xvii. *Decommissioning Bond.* A decommissioning plan that is consistent with the requirements of this section. The decommissioning plan shall include, but is not limited to, financial assurance in the form of a bond, a parent company guarantee, or an irrevocable letter of credit, but excluding cash. The amount

of the financial assurance shall not be less than the estimated cost of decommissioning the utility-scale solar energy system, without deducting salvage value, as calculated by a third party with expertise in decommissioning, hired by the applicant. Applicants shall enter into a decommissioning agreement with the Township in a form acceptable to the Township Board to govern the use of the financial assurance. The decommissioning agreement must specify: (1) the anticipated life of the project before decommissioning; (2) how the Township will receive land access rights to decommission a project should it be required to decommission the project; and (3) periodic updates to the financial assurance in five year periods to increase the amount of the financial assurance.

- xviii. *As-Builts*. 180 days after construction of a utility-scale solar energy system, as-built files shall be submitted in electronic and paper copies demonstrating that a project was built in compliance with any application materials and Township zoning approvals. The as-built submittals must include all applicable electronic and hard copies of the following information: Adobe PDF documents, coordinate data for all site features, and GIS and CAD files for all the information listed above.
- xix. *Material Safety Data Sheets and Manufacturer's Manuals*. Upon submission of an application, an applicant must provide all material safety data sheets and manufacturer's instructions/manuals for substantive project components (e.g., panels and inverters, but not fencing) and all cleaning agents planned for use during the life of the project for Township review and inspection. Should any of the above information be considered confidential or a trade secret, the applicant shall indicate a process to allow inspection of such materials upon request by the Township while at the same time protecting disclosure of the documents to the extent permitted by Michigan public record statutes.
- xx. *Community Impacts Analysis*. A study that identifies all impacts of a proposed project on community resources and services, including, but not limited to, roads, fire protection (including any necessary training or equipment), police protection, emergency medical services, and public drainage systems including culverts. Applicants shall demonstrate in an application for a utility-scale solar energy system, how they will ensure impacts from a proposed project on community resources and services will be addressed by the applicant and not be borne on the Township.
- xxi. *Visual Analysis*. Renderings of the proposed project that show the Township how the proposed project will look from various vantage points from roadways and non-participating properties.

xxii. Other information reasonably required by the Township.

- d. Setbacks. The Solar Energy System shall conform to the following setback requirements, with setback distances measured from the nearest edge of the perimeter fencing of the facility:

Setback Description	Setback Requirement
Occupied community buildings and dwellings on nonparticipating properties	300 feet from the nearest point on the outer wall
Public road right-of-way	50 feet measured from the nearest edge of a public road right-of-way
Nonparticipating Properties	50 feet measured from the nearest shared property line

- e. Fencing. Fencing for the Solar Energy System shall comply with the latest version of the National Electric Code or any applicable successor standard approved by the Planning Commission as reasonable and consistent with the purposes of this subsection.
- f. Height. The Solar Energy System shall not exceed a maximum height of 25 feet above ground when the arrays are at full tilt.
- g. Noise. The Solar Energy System shall not generate a maximum sound in excess of 50 dB(A) Leq hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on the adjacent nonparticipating property. Applicants must provide a pre-construction and post construction sound study to the Township demonstrating compliance with this standard.
- h. Lighting. The Solar Energy System shall implement dark sky-friendly lighting solutions.
- i. Glare. All solar panels shall be placed such that concentrated solar glare shall not be directed onto nearby properties or roadways. Applicants must provide a pre-construction and post-construction glare study to the Township demonstrating compliance with this standard and may be required to utilize operational controls on a solar farm (e.g., tilting of panels at certain times) to ensure such compliance.
- j. Screening. The Solar Energy System shall be completely enclosed by perimeter security fencing to restrict unauthorized access.
- i. Unless screened and buffered at all times by natural forest vegetation meeting the minimum spacing and height requirements, and 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 utility-scale solar energy systems, including without limitation between such utility-scale solar energy system and adjacent residential or agricultural areas and/or public highways or streets. Nothing contained herein shall be construed to prevent reasonable access to any utility-scale solar energy system as approved by the special land use permit.

- ii. The evergreen or native vegetative buffer shall be composed of native or evergreen trees that at planting shall be a minimum of four feet in height and shrubs two feet in height. The evergreen trees shall be spaced no more than 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 30 feet apart on center and shrubs shall be spaced no more than seven feet apart on center. All unhealthy (60% dead or greater) and dead material shall be replaced by the applicant within six months, or the next appropriate planting period, whichever occurs first, but under no circumstances should the applicant allow unhealthy or dead material to remain in place for more than six consecutive months. Failure to maintain the required evergreen vegetative buffer as required by this section shall constitute a violation of this Ordinance and sufficient grounds for revocation of any special land use permit previously granted.
- iii. All plant materials shall be installed between March 15 and November 15. If the 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 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.
- iv. The landscaping requirements above can be waived upon request by an applicant in instances where screening may be unnecessary such as in between two participating properties, in between two vacant farm fields, or in other similar situations. Moreover, the Township may accept reasonable alternative plantings from an applicant to accomplish screening of a project should the plantings have, in the Township's determination, the same or a greater screening effect of the project.

k. Complaint Resolution.

- i. From construction until project decommissioning, an applicant or owner or operator of the Solar Energy System must maintain a written complaint resolution plan that will be utilized by the owner or operator of the Solar Farm Energy System that includes a publicly available permanent phone number and contact information for residents to make complaints regarding

the Solar Farm Energy System related to violations of the Zoning Ordinance or any zoning approvals.

- ii. Such process must: (1) include a form available to the public to submit complaints which shall also be made available online and be provided to the Township for distribution to residents; (2) require reporting of complaints and resolutions to the complaints to the Township Clerk on a monthly basis; (3) require resolutions to complaints within 30 days unless unfeasible; and (4) not require a deposit from either a complainant or the Township for the owner or operator to investigate a complaint related to compliance with the Zoning Ordinance or a zoning approval.
 - iii. A utility-scale solar energy system owner or operator shall acknowledge receipt of such complaints within five (5) business days and shall acknowledge receipt of such complaints within 30 days unless impracticable in which case the owner or operator must notify the Township and complainant of an estimated timeframe to resolve a complaint.
 - iv. The complaint resolution process may not require a complainant or the Township to post a monetary deposit or otherwise pay for the owner or operator to resolve or investigate a complaint.
 - v. The Solar Energy System owner or operator must notify the Township of any received complaints and resolutions to complaints on a monthly or bi-monthly basis.
- l. Reporting. From construction until project decommissioning, an applicant shall make available upon request annual reports on trends and usage of the project including all maintenance activities.
- m. Inspection. The Township shall have the right to inspect a utility-scale solar energy system for consistency with the requirements of the Zoning Ordinance and all zoning approvals. The owner or operator shall provide the Township and any of its officials, employees, or retained consultants access to the project for such inspections, but may accompany the Township on such inspections and require individuals inspecting the project to adhere to required safety protocols. The Township shall give reasonable advance notice of an inspection, which in no case shall be less than three (3) business days.
- n. Transportation Plan and Road Impacts. Prior to any construction, an owner or operator of a Solar Energy System shall provide the Township the description of routes to be used for construction of the project, any improvements to roadways necessary for the project, a copy of any performance guarantee, and any executed agreements related to the aforementioned matters submitted to the County Road Commission or Michigan Department of Transportation for project road use and repair. All material damage to a public road located within the Township resulting

from a Solar Energy System's construction, maintenance, or operation, must be repaired at a project owner or operator's expense.

- o. Safety.
 - i. All collection system wiring shall comply with all applicable safety and stray voltage standards.
 - ii. All access doors to the utility-scale solar energy facility or its components shall be lockable and kept secured at all times when service personnel are not present.
 - iii. A sign shall be posted near the entrance to the project that will contain emergency contact information.
 - iv. All facilities shall be accessible to emergency responders. Documented emergency response access descriptions shall be provided to the Township prior to operation.

- p. Project Appearance and Good Repair. Until project decommissioning, the owner and operator must maintain the utility-scale solar energy system and its components including but not limited to fencing, required landscaping, solar arrays, inverters in good repair. The fenced area and the area immediately surrounding the project shall be kept free of refuse, waste, and debris, and shall be neat, clean, and free of unsightly/unkept, hazardous or unsanitary conditions. No storage shall occur within the fenced area or the area immediately surrounding the project post-construction.

- q. Responsibility for Erosion and Flooding. Any erosion or flooding of property as a result of the construction or operation of the utility-scale solar energy system structures or access roads is the responsibility of the owner or operator.

- r. Continuing Enforcement Escrow. Prior to construction and until a utility-scale solar energy system is decommissioned, a project owner or operator shall deposit and maintain a continuing escrow deposit (either in cash, letter of credit, or by surety bond) to cover all reasonable costs and expenses incurred by the Township to enforce the Zoning Ordinance and the terms of the project's zoning approvals including site plan and conditions, for the life of the project. Such continuing enforcement escrow deposit may be used towards necessary enforcement actions and reports or studies necessary for enforcement and may fund reasonable fees for the Township Attorney, Township Engineer, Township Planner, or any other consultant necessary for enforcement action and the project owner or operator must deposit more funds with the Township as part of the continuing enforcement escrow should the Township expend all deposited funds or need to spend more funds for a particular enforcement action. The initial enforcement escrow deposit shall be in the amount no less than \$7,500.

- s. Application Consistency and Repowering. Any project must be constructed, operated, and maintained consistent with this Section and its zoning approval unless the owner or operator obtains a new zoning approval from the Township to alter the approval project. The owner or operator must apply for and be granted a new special land use permit and site plan under the Zoning Ordinance prior to repowering the project.

- t. Liability Insurance. The applicant shall maintain a current general liability policy for any project covering bodily injury and property damage with limits of at least five million (\$5,000,000) dollars per occurrence and five million (\$5,000,000) dollar in aggregate and naming the Township and its officers and staff as additional insureds, and provide proof that it meets the insurance requirements to the Township prior to approval.

- u. Abandonment, Decommissioning, and Financial Surety.
 - i. Any utility-scale solar energy system which has reached the end of its useful life or has been abandoned consistent with this section of the Zoning Ordinance shall be removed and parcel owners shall be required to restore the site to its original condition. The owner or operator shall physically remove installation no more than 150 days after the date of discontinued operations. The owner or operator shall notify the Township and the Planning Commission by certified mail of the proposed date of discontinued operations and plans for removal.
 - ii. Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the utility-scale solar energy system shall be considered abandoned when it remains nonfunctional or inoperative to the extent that it is not used to generate electric energy for a continuous period of 18 months. If the owner or operator fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment, the Township is permitted to enter the property and physically remove the installation at the owner's expense.
 - iii. Decommissioning shall consist of:
 - 1. Physical removal of all utility-scale solar energy systems, structures, equipment, security barriers, concrete, and transmission lines (including underground lines) from the site. All underground infrastructure shall be removed completely and disposed of.
 - 2. Disposal of all solid and hazardous waste in accordance with local, state and federal waste disposal regulations.
 - 3. Stabilization or re-vegetation of the site as necessary to minimize erosion.

- iv. To ensure decommissioning occurs, prior to construction of a project, a utility-scale solar energy system owner and operator must prepare a decommissioning agreement and corresponding bond in a format and amount acceptable to the Township's legal counsel. Such documents may be submitted to the Township and to the Planning Commission but shall be approved by the Township Board. The amount of bond outlined in the decommissioning agreement shall not credit salvage value of any project improvements due to, among other things, the Township lacking expertise to salvage a large-scale utility project. The decommissioning agreement entered into with the Township shall include a mechanism to increase the amount of decommissioning bond at a periodic interval (e.g., every five years) using a method deemed acceptable by the Township (e.g., inflationary index or new study estimating decommissioning costs) to account for changing decommissioning costs.

ARTICLE 3: AMENDMENT TO ARTICLE THREE, SECTION 312 OF THE ZONING ORDINANCE.

Article 3, section 312 shall be amended to make utility-scale solar energy systems a special use in the AG and I zoning districts.

ARTICLE 4: AMENDMENT TO ARTICLE THREE, SECTION 312 OF THE ZONING ORDINANCE.

Article 3, section 312 shall be amended to make small solar energy systems a permitted use in all zoning districts.

ARTICLE 5: REPEAL. All ordinances or parts of ordinances in conflict herewith, including Ordinance No. ____ are hereby repealed.

ARTICLE 6: SAVINGS CLAUSE. The remainder of the Township Zoning Ordinance is unaffected. Except as expressly amended by this ordinance amendment, the rest of the Township Zoning Ordinance remains unchanged and in full force and effect.

ARTICLE 7: SEVERABILITY. Should a court of competent jurisdiction determine that any portion of this ordinance amendment (or any portion thereof) is invalid or unconstitutional, that shall not effect any other portions of this ordinance amendment, which shall remain in full force and effect.

ARTICLE 8: EFFECTIVE DATE. This ordinance amendment shall become effective seven (7) days after this ordinance amendment or a summary thereof appears in the newspaper as provided by law.

YEAS: _____

NAYS: _____

ABSENT: _____

ORDINANCE DECLARED ADOPTED

Bruce Harris, Supervisor
Ingham Township

CERTIFICATION

I hereby certify that the above is a true copy of an ordinance that was:

1. Adopted by the Ingham Township Board at the time, date, and place specified above pursuant to the required statutory procedures.
2. Published by summary following its adoption in the _____ newspaper, a newspaper that circulates within Ingham Township, on _____, 2024.
3. Recorded one (1) week after such publication in a book of Ordinances kept by me for that purpose, including the date of passage of the Ordinance, the names of the members of the Township Board voting, and how each member voted; and
4. Filed as an attested copy with the Ingham County Clerk on _____, 2024.

Respectfully submitted,

Kathy LaGrow, Clerk
Ingham Township