

KAWKAWLIN TOWNSHIP
SOLAR ENERGY FACILITIES (DRAFT)

Add to Article V:

SECTION 529 – SOLAR ENERGY FACILITIES

A. SOLAR ENERGY FACILITIES.

1. **SPECIAL LAND USE REQUIREMENTS.** The solar energy regulations and standards described in this section pertain to the creation of large-scale ground-mounted solar photovoltaic installations that primarily sell electricity to be used off site. The regulations set forth below apply to the construction, operation, and/or repair of large-scale ground-mounted Solar Energy Facilities and shall only be allowed as a special land use in the A-R - Agricultural District, C-2 – Highway Commercial District, and I-1 – Light Industrial District, pursuant to Article V as to Special Land Use approvals and the following requirements. Land enrolled in PA 116 (Farmland and Open Space Preservation Program) is not eligible to be used for Solar Energy Facilities. These regulations are not intended to encourage land to be disenrolled in the PA 116 program.
 - a. **Applicant Identification.** Applicant name and address in full, a statement that the applicant is the owner involved or is acting on the owner's behalf, the address of the property involved in the application (substitution may include a legal description or parcel identifications number(s)), and any additional contact information. Each application for a Solar Energy Facility shall also be dated to indicate the date the application is submitted to Kawkawlin Township.
 - b. **Fee.** An applicant shall remit an application fee, an escrow deposit, in the amount specified by Township policy. This schedule shall be based on the cost of the application review and may be adjusted from time to time. If professional review of plans is required, then such costs shall be paid from the escrow deposit.
 - c. **Project Description.** A general description of the proposed project including a legal description of the property or properties on which the project would be located and an anticipated construction schedule.
 - d. **Project Design.** A description and drawing of the proposed technology to include type of solar panel and system, fixed mounted verses solar tracking, number of panels, and angles of orientation.
 - e. **Procedure.** The Planning Commission review of a Special Land Use Permit application for a Solar Energy Facility is a two-step process. The first step is the public hearing and decision by the Planning Commission, per the procedures for review in Section 500. The second step, which may occur at a separate meeting for a solar energy facility, is the site plan review process by the Planning Commission as described in Section 800. A decision on the Special Land Use Permit application by the Planning Commission is inclusive of all proposed Solar Energy Facilities, underground electrical lines, sub-station(s), junction boxes, laydown yard(s), and any operations/maintenance building(s).

- f. **Insurance.** Proof of the applicant's public liability insurance with at least \$1,000,000.00, per occurrence to cover the Solar Energy Facility, the Township, and the landowner.
 - g. **Certification.** Certifications that the applicant has complied or will comply with all applicable county, state, and federal laws, regulations, and ordinances, including compliance with the Farmland and Open Space Preservation Program (Part 361 of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994 as amended, more commonly known as PA 116).
 - h. **Manufacturers' Material Safety Data Sheet(s).** Documentation shall include the type and quantity of all materials used in the operation of all equipment.
 - i. **Visual Simulations.** Photo exhibits visualizing the proposed solar energy system, with emphasis on visualizing the location of any required fences, landscaping, access roads, and setbacks from adjacent non-participating property.
 - j. **Maintenance Plan.** Applicant shall submit a maintenance plan that describes the following:
 - 1) Demonstrates the solar energy facility will be designed, constructed, and operated to minimize dust generation, including provision of sufficient watering of excavated or graded soil during construction to prevent excessive dust.
 - 2) States the manner how unpaved access roads will be treated and maintained, either with a dust palliative or graveled or treated by another approved dust control method to prevent excessive dust.
 - 3) Provisions that will be employed to maintain and promote native vegetation while minimizing the proliferation of weeds during and following construction.
 - k. **Emergency Services.** The large scale solar photovoltaic installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the local fire chief. The owner or operator shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar photovoltaic installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.
 - l. **Decommissioning.** Copy of the decommissioning plans and a description of how any surety bond is applied to the decommissioning process.
 - m. **Complaint Resolution.** Description of the complaint resolution process.
2. **ADDITIONAL SITE PLAN REQUIREMENTS.** The applicant shall submit a site plan in full compliance with Section 800 of this zoning ordinance for each Solar Energy Facility and other solar energy appurtenances. Additional requirements for a Solar Energy Facility site plan are as follows:
- a. The project area boundaries,
 - b. The location, height, and dimensions of all existing and proposed structures and fencing,

- c. The location, grades, and dimensions of all temporary and permanent on-site and access roads from the nearest county or state maintained road,
- d. Existing topography,
- e. Water bodies, waterways, wetlands, drainage channels, and drain easements, and
- f. A site grading, erosion control and storm water drainage plan. At the Township's discretion, these plans may be reviewed by the Township's engineering firm.
- g. All comments from the Bay County Drain Commissioner's office pertaining to the proposed solar energy facility shall be submitted to the Planning Commission.
- h. All new infrastructure, both above and below ground, related to the project. This includes inverters and batteries.
- i. Identification of a construction/set-up/laydown area.

3. **STANDARDS AND REQUIREMENTS.** Solar Energy Facilities shall meet the following standards and requirements:

a. **Location of Solar Energy Facilities.**

- i. All Solar Energy Facilities must comply with the requirements established in the Kawkawlin Township Zoning Ordinance.
- ii. All fences and improved areas located on the site shall comply with the applicable setbacks for the district in which it is located. Furthermore, any structures or other improved areas located within the fenced/improved area shall be located at least 30 feet from the fence line/improved area.

Project design and layout will ensure any structures or other improved areas located within the fenced/improved area shall be located a minimum of 100 feet from any residential structure, church, school, family or group child day-care home, and bed and breakfast establishments.

- iii. Solar panels and associated racking is limited in height to eighteen (18) feet. All other structures shall comply with the height requirements of the district where the facility is located.

b. **Design and Installation Standards**

- i. All proposed facilities shall comply with all applicable local, state, and federal standards and requirements, including electrical, building, and drain codes.
- ii. A copy of the application to the utility company that will be purchasing electricity from the proposed site shall be provided to the Planning Commission.
- iii. All electrical connection systems and lines from the Solar Energy Facility to the electrical grid connection shall be located and maintained at a minimum depth of six feet underground.

- iv. The design and construction of Solar Energy Facilities shall not produce electrical emissions that would interfere with aircraft communications systems or navigation equipment.
 - v. If the Solar Energy Facility consists of batteries or storage of batteries, adequate design must be provided to ensure all local, state and federal requirements regulating outdoor battery storage have been met.
 - vi. The applicant must obtain a driveway permit from the Bay County Road Commission or MDOT, as applicable.
 - vii. The applicant must obtain any drain permits from the Bay County Drain Commission or MDEQ, as applicable
 - viii. The design of Solar Energy Facilities buffers shall use materials, colors, textures, screening and landscaping, that will blend the facility into the natural setting and existing environment
 - ix. Lighting shall be consistent with local, state, and federal law, and shall be limited to that required for safety and operational purposes. Lighting shall be reasonably shielded from abutting properties.
 - x. Compliance with any applicable airport overlay zoning requirements and the ability to comply with FAA regulations pertaining to hazards to air navigation must be demonstrated.
 - xi. If a Solar Energy Facility ownership changes, the new owner/operator must meet with the Kawkawlin Township Planning Commission to review the conditions of the Special Use Permit within sixty (60) days of the change in ownership.
- c. **Noise.** As part of the application, and prior to installation, the applicant shall provide noise modeling and analysis that will demonstrate the Solar Energy Facility will not exceed the maximum permitted noise levels.

Noise generated by a Solar Energy Facility shall not exceed 55 dB(A) equivalent sound level (Leq) or the ambient Leq sound pressure level plus 5 dB(A) for more than 3 minutes in any hour (5% of any hour) at an inhabited structure on non-participating parcels. Modeling and analysis shall conform to any applicable national standards pertaining to noise and sound pressure measurements.

After installation of the Solar Energy Facility, noise measurements shall be done by a third party, qualified professional according to the procedures in the most current version of the applicable national standards.

All sound pressure levels shall be measured with a sound meter that meets or exceeds the most current version of ANSI S1.4 specifications for a Type II sound meter. Documentation of the noise measurements shall be provided to the Planning Commission within 120 days of the commercial operation of the project.

d. Light and Glare

- i. All Solar Energy Facilities shall be placed such that concentrated solar glare does not project onto nearby inhabited structures or roadways and be considered a nuisance.
- ii. The applicant has the burden of proof that any glare produced does not have an adverse effect on neighboring or adjacent uses through siting and mitigation. If the solar panel systems do produce a glare, the applicant shall be responsible for mitigation, and will provide a mitigation plan.
- iii. The design and construction of Solar Energy Facilities shall not produce light emissions, either direct or indirect (reflective), that would interfere with pilot vision and/ or traffic control operations.

e. Landscaping

- i. Applicant shall submit a landscape plan detailing all proposed changes to the landscape of the site, including temporary or permanent roads or driveways, grading, vegetation clearing, and planting.
- ii. All Solar Energy Facilities shall have a minimum landscape buffer of 20 feet in width. The buffer shall contain evergreen trees or bushes planted no more than eight feet apart and at least four feet tall at time of planting. Trees and bushes planted in the buffer shall obtain a height of 10 feet within three growing seasons. The trees or bushes may be trimmed but can be no lower than a height of 10 feet.
- iii. Land clearing of natural vegetation shall be limited to that which is necessary for the construction, operation, and maintenance of the Solar Energy Facility pursuant to practices of best management of natural areas or good husbandry of the land or forest other prescribed by applicable laws, regulations, and bylaws.
- iv. Each owner/operator of a Solar Energy Facility shall utilize good husbandry techniques with respect to said vegetation, including but not limited to, proper pruning, proper fertilizer, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be replanted at the next appropriate planting time. Plants or grasses not part of landscaping shall be maintained by the facility operator not to exceed twelve inches in height.
- v. Applicant must provide a detailed maintenance plan for the proposed solar energy system, and surrounding area, including provisions that will be employed to maintain and promote native vegetation while minimizing the proliferation of weeds during and following construction.

f. Security

- i. The manufacturers or installer's identification and appropriate warning sign shall be posted on or near the panels in a clearly visible manner;

furthermore, an information sign shall be posted and maintained at the entrance(s), which shall list the name and phone number of the operator

- ii. Solar energy facilities may be surrounded by a chain link fence not to exceed six feet in height. The fence shall be designed to restrict unauthorized access.
- iii. No portion of the Solar Energy Facility shall contain or be used to display advertising. The manufacturers' name and equipment information or dedication of ownership shall be allowed on any equipment of the solar energy system provided they comply with the prevailing sign regulation.

5. ABANDONMENT AND DECOMMISSIONING.

- a. Abandonment: A Solar Energy Facility that ceases to produce energy on a continuous basis for 12 months will be considered abandoned unless the current responsible party (or parties) with ownership interest in the Solar Energy Facility provides substantial evidence (updated every 6 months after 12 months of no energy production) to the Planning Commission or its designee of the intent to maintain and reinstate the operation of that facility. It is the responsibility of the responsible party (or parties) to remove all equipment and facilities and completely restore the property to its condition prior to development of the Solar Energy Facility.
 - i. Upon determination of abandonment, the Zoning Administrator shall notify the party (or parties) responsible that they must remove the Solar Energy Facility and restore the site to its condition prior to development of the Solar Energy Facility within six (6) months of notice by the Planning Commission or its designee.
 - ii. If the responsible party (or parties) fails to comply, the Township or its designee, may remove the Solar Energy Facility, sell any removed materials, and initiate judicial proceedings or take any other steps legally authorized against the responsible parties to recover the costs required to remove the Solar Energy Facility and restore the site to a nonhazardous predevelopment condition.
- b. Decommissioning: A decommissioning plan signed by the party responsible for decommissioning and the landowner addressing the following shall be submitted prior to the issuance of the zoning permit, which shall include:
 - i. The anticipated life of the project;
 - ii. The estimated decommissioning costs net of salvage value in current dollars;
 - iii. The method of ensuring that funds will be available for decommissioning and restoration, to include but not limited to:
 - 1. Complete removal of all non-utility owned equipment, conduit, structures, fencing, roads, solar panels and foundations, and
 - 2. Complete restoration of property to condition prior to development of the Solar Energy Facility;

- iv. The anticipated manner in which the project will be decommissioned and the site restored.
 - 1. Decommissioning shall include the removal of each Photovoltaic Panel, all electrical components, and associated facilities within the footprint of the Solar Energy Facility to a depth of four feet below grade.
 - 2. All access roads to the Solar Energy Facility shall be removed, cleared, and graded by the facility owner, unless the property owner requests, in writing, a desire to maintain the access road. The Township will not be assumed to take ownership of any access road and such remaining roads will not be considered public roads.
 - 3. The site and any disturbed earth shall be stabilized, graded, and cleared of any debris by the owner of the Solar Energy Facility or its assigns. If the site is not to be used for agricultural purposes following removal, the site shall be seeded to prevent soil erosion, and restored to its condition existing prior to any construction activities, unless the property owner(s) requests, in writing, the land surface areas not be restored.
- v. A provision to give notice to the Township one year in advance of decommissioning.
- vi. A surety bond to assure payment of the cost of decommissioning shall be required. To ensure proper removal of the structure when it ceases to be used for a period of one year or more, any application for a new Solar Energy Facility shall include a description of the financial security guaranteeing removal of the Solar Energy Facility which will be posted prior to receiving a building permit for the facility. The security shall be a: 1) cash bond; 2) irrevocable bank letter of credit; or 3) performance bond in a form approved by the Township. The amount of such guarantee shall be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments. A condition of the Surety Bond shall be notification by the surety company to the Township Zoning Administrator 30 days prior to its expiration or termination. When determining the amount of such required security, the Township may also require future meetings at pre-set intervals, to establish corrected values for decommissioning. The financial security instrument shall be adjusted to each determined corrected value.
- vii. The estimate shall be prepared by the engineer for the developer and shall be approved by the Township. The applicant shall be responsible for the payment of any costs or attorney fees incurred by the Township in securing removal.
- viii. The timeframe for completion of decommissioning activities.
- ix. A condition of the Surety Bond shall be notification by the surety company to the Township Zoning Administrator thirty (30) days prior to its expiration or termination.

6. COMPLAINT RESOLUTION.

- a. The Solar Energy Facility Applicant shall submit a detailed, written complaint resolution process developed by the Solar Energy Facility Applicant to resolve complaints concerning the construction or operation of the Solar Energy Facility. The complaint resolution process must be approved by the Planning Commission as a condition of approval of the special land use permit application.
- b. The Planning Commission shall be kept apprised of all complaints and shall receive a report outlining the issues, the progress, and the resolution of each such complaint. Such report shall be presented every six months by the applicant to the Planning Commission.

7. **CONFLICTING PROVISIONS.** In the event of a conflict between any provision in this section and any other section of this Zoning Ordinance with regard to Solar Energy Facilities, the provisions of this section shall control.

Add to Article II – Definitions:

SOLAR ENERGY FACILITY. An energy facility or an area of land principally used to convert solar energy to electricity, which includes, but is not limited to, the use of one or more solar energy systems. This definition shall only include those facilities that primarily sell electricity to be used off site.

Add to Article III:

Consolidated Uses Chart:

- Add Solar Energy Facilities to the chart.
- Indicate “S” for Solar Energy Facilities for A-R, C-2, and I-1

Add Solar Energy Facility as a Special Land Use in A-R chart, High Commercial (C-2) chart, and Light Industrial (I-1) chart.