

**KAWKAWLIN TOWNSHIP**  
**SOLAR ENERGY SYSTEMS (DRAFT)**

**Add to Article V:**

**SECTION 529 – SOLAR ENERGY SYSTEMS**

**A. STANDARDS FOR SMALL SCALE/PERSONAL SES**

Small Scale/Personal SES shall be permitted as an accessory use/structure in all zoning districts, subject to the following standards:

1. **Application for Approval of Small Scale/Personal SES:** A Small Scale/Personal SES requires a Zoning Compliance Permit, except as excluded in Subparagraph 2, below. An application for ~~a~~an approval shall be submitted to the Zoning Administrator and shall include the following:
  - a. Photographs of the property's existing conditions.
  - b. Plot/Sketch plan, drawn to scale, indicating where the solar energy system is to be installed on the property (or, if building-mounted, the system's location on the permanent building), including property setbacks and the total Solar Collector Surface area.
  - c. Elevations showing the height of the solar energy system.
    - i. For ground-mounted solar systems, the height of the system above ground.
    - ii. For pitched roof-mounted solar systems, the elevation must show the highest finished height of the system and the height of the finished roof surface on which it is mounted.
    - iii. For flat roof-mounted solar energy systems, the elevations shall show the highest finished height of the system and the highest point of the roof, including any parapets on the building.
  - d. Description of the screening to be provided for ground or building-mounted solar energy equipment.
  
2. **Exclusions from Zoning Compliance Permit for Small Scale/Personal SES:** The following situations do not require a Zoning Compliance Permit, but shall still comply with all other standards of this Ordinance:
  - a. The installation of ~~one (1)~~a building-mounted solar energy system with a total solar collector surface area ~~of less than eight (8) square feet~~not to exceed the total surface area of the building's roof.
  - b. The installation of one (1) ground-mounted solar energy system with a height of less than six (6) feet and a solar collector surface of less than eight (8) square feet.
  - c. Repair and replacement of existing solar energy equipment, provided that there is no expansion of the size or coverage area of the solar energy system.

3. **Ground-Mounted SES:** Ground-mounted, Small Scale/Personal SES shall be subject to the following additional standards:
  - a. **Setbacks:** In all Zoning Districts, ground-mounted solar energy systems shall be located only in the rear or side yard and shall be located at least ten (10) feet from any property line.
  - b. **Height:** Ground-mounted solar energy systems shall not exceed fourteen (14) feet in height, measured from the existing natural grade at the base of such equipment to the highest point of the system.
  - c. **Attachment:** Solar energy systems shall be permanently and safely attached to the ground. Proof of the safety and reliability of the means of such attachment, in the form of certification by a professional engineer or other qualified person, shall be submitted with the application.
  - d. **Installation and Maintenance:** Solar energy systems shall be installed, maintained and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted with the site plan application.
  - e. **Solar Glare:** The solar energy system shall not cause solar glare when viewed from any other property or a public or private road.
  - f. **Compliance with Additional Codes:** Solar energy systems, and the installation and use thereof, shall comply with the construction codes of this state and other applicable Township and State laws. Installation of a solar energy system shall not commence until all required permits have been issued.
4. **Building-Mounted SES:** Building-mounted, Small Scale/Personal SES shall be subject to the Standards for all Building-Mounted SES, contained below, in addition to the standards contained within this Section.
5. **Ancillary Solar Equipment:** Where feasible, ancillary solar equipment shall be located inside of a building or be screened from public view. All ancillary solar equipment such as, but not limited to, water tanks, supports, batteries, and plumbing shall be screened to the maximum extent possible without compromising the effectiveness of the solar collectors. When solar storage batteries are included as part of the solar collector system, they must be placed in a secure container or enclosure meeting the requirements of the construction codes of this state, and when no longer in use, shall be disposed of with six months of non-use in accordance with applicable laws and regulations.
6. **Waiver.** Planning Commission may waive any or all of the above standards upon review of a special land use application by finding that all the following conditions apply.
  - a. The proposed use will not impact the productive use of adjacent properties.
  - b. Site access and traffic can be accommodated on the roadway system.
  - c. The use will not destroy potential future use for agriculture.

## **B. STANDARDS FOR UTILITY SCALE/SOLAR FARM SES (SES)**

Utility Scale/Solar Farm SES shall be permitted as a Special Land Use in the A-R – Agricultural/Rural Residential 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.

1. **SPECIAL LAND USE REQUIREMENTS.**

- 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 SES 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. **Escrow for Permitting Costs:** An escrow account in the form of a cash deposit of not less than \$2,000, or such other amount estimated by the Township Board, shall be set up when the Applicant applies for a Special Use Permit. The deposit shall be sufficient to cover all reasonable costs and expenses associated with the special land use zoning review and approval process, which costs can include, but are not limited to, fees of ~~the~~ Township [consultants and other third-party professionals such as an Attorney, Township Community Planner, and Township Professional Engineer](#), as well as any reports or studies which the Township anticipates it may have done related to the zoning review process for the particular application. Such escrow amount shall include regularly established fees. At any point during the zoning review process, the Township may require that the Applicant place additional monies into the Township escrow should the existing escrow amount filed by the Applicant prove insufficient. If the escrow account needs replenishing and the Applicant refuses to do so within fourteen (14) days after receiving notice, the zoning review and approval process shall cease until and unless the Applicant makes the required escrow deposit. Any escrow amounts which are in excess of actual costs shall be returned to the Applicant within ninety (90) days of permitting process completion. An itemized billing of all expenses shall be provided to the Applicant. The Township may hire qualified professionals for each and any of the technical fields associated with the Special Use Permit, such as, but not limited to, electrical, environment, economics, wildlife, health, and land-use.)
- d. **Reasonable Conditions.** In addition to the requirements of this section, the Planning Commission may impose additional reasonable conditions on the approval of any SES as a special land use.
- e. **Inspections.** The Township shall have the right upon issuing any SES facility special use permit to inspect the premises on which the SES equipment is located at any reasonable time. The Township may hire a consultant to assist with any such inspections at a reasonable cost to be charged to the operator of the SES.
- f. **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.

- g. **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.
- h. **Procedure.** The Planning Commission review of a Special Land Use Permit application for a SES 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 SES, 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 SES, underground electrical lines, sub-station(s), junction boxes, laydown yard(s), and any operations/maintenance building(s).
- i. **Insurance.** Proof of the applicant's public liability insurance with at least \$2,000,000.00 per occurrence to cover the SES, the Township, and the landowner.
- j. **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).
- k. **Manufacturers' Material Safety Data Sheet(s).** Documentation shall include the type and quantity of all materials used in the operation of all equipment.
- l. **Safety Manual.** The Applicant must provide an unredacted copy of the manufacturer's safety manual for all proposed SES equipment without distribution restraints, at the time of application for special land use approval, to be kept at the Township Hall and other locations deemed necessary by Planning Commission or local first responders upon approval of the proposed SES. The Manual should include standard details for an industrial site such as materials, chemicals, fire, access, safe distances during SES failure, processes in emergencies, etc.
- m. **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.
- n. **Maintenance Plan.** Applicant shall submit a maintenance plan that describes the following:
  - 1) Demonstrates the SES 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.
  - 4) If a SES is not maintained in operational and reasonable condition or poses a potential safety hazard, the owner shall take expeditious action to correct the situation, including SES removal as necessary.

- 5) The owner shall keep a maintenance log on each SES and must provide complete log to the Township within thirty (30) days of request.
- o. **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.
- p. **Decommissioning.** Copy of the decommissioning plans and a description of how any surety bond is applied to the decommissioning process.

q. **Complaint Resolution.** Description of the complaint resolution process.

r. **Utilization of Prime Agricultural Land.** The Township desires to have Utility Scale/Solar Farm SES on more marginal lands; however, it recognizes that agricultural lands tend to be the desirable locations for siting such facilities. Where a Utility Scale/Solar Farm SES is proposed on Prime Agricultural Land as so classified by the County, MSU Extension Agent, or by a NRCS Soil Survey, the applicant shall identify what mitigating actions it is taking to minimize the loss of agricultural production (such as low-light plantings, wildflowers and sunflowers, bee aeries and solar pollinating, animal grazing, and other similar options).

All applications for a Utility Scale/Solar Farm SES shall adhere to the Michigan Department of Agriculture and Rural Development Policy for Allowing Commercial Solar Panel Development on PA 116 Lands, available online at [https://www.michigan.gov/documents/mdard/MDARD\\_Policy\\_on\\_Solar\\_Panel\\_and\\_PA116\\_Land\\_656927\\_7.pdf](https://www.michigan.gov/documents/mdard/MDARD_Policy_on_Solar_Panel_and_PA116_Land_656927_7.pdf).

s. **Environmental Impact.** The applicant shall have a third party, qualified professional conduct an analysis specific to Kawkawlin Township and the immediate surrounding area in Bay County including relevant portions of the Saginaw Bay, a part of Lake Huron, to identify and assess any potential impacts on the natural environment including, but not limited to wetlands and other fragile ecosystems, historical and cultural sites, and antiquities.

The applicant shall take appropriate measures to minimize, eliminate or mitigate adverse impacts identified in the analysis.

The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts. The applicant shall comply with applicable parts of the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, MCL 324.101 et seq.) including but not limited to Part 31 Water Resources Protection (MCL 324.3101 et seq.), Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et seq.), Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.), Part 303 Wetlands (MCL 324.30301 et seq.), Part 323 Shoreland Protection and Management (MCL 324.32301 et seq.), Part 325 Great Lakes Submerged Lands (MCL 324.32501 et seq.), and Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.).

t. **Avian and Wildlife Impact.** The applicant shall have a third party, qualified professional conduct an analysis specific to Kawkawlin Township and the immediate surrounding area in Bay County including relevant portions of the Saginaw Bay, a part of Lake Huron to identify and assess any potential impacts on wildlife and endangered species. The applicant shall take appropriate measures to minimize, eliminate or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

Applicant shall follow U.S. Fish and Wildlife Service (USFWS) recommendations. In addition, the applicant shall also provide evidence indicating compliance with applicable portions of the Migratory Bird Treaty Act (MBTA, 16 U.S.C. 703 et seq.), Bald and Golden Protection Act (Eagle Act; 16 U.S.C. 668-668d), Endangered Species Act (ESA; 16 U.S.C. 1531 et. seq.), Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.), National Environmental Policy Act (42 U.S.C. 4321et. seq.), Clean Water Act (33 U.S.C. 1251 et.seq.), and Michigan's Endangered Species Protection Law, as amended.

Sites requiring special scrutiny include wildlife refuges, other areas where birds are highly concentrated, bat hibernacula, wooded ridge tops that attract wildlife, sites that are frequented by federally and/or state listed endangered species of birds and bats, significant bird migration pathways, and areas that have landscape features known to attract large numbers of raptors.

At a minimum, the analysis shall include a thorough review of existing information regarding species and potential habitats in the vicinity of the project area. Where appropriate, surveys for bats, raptors, and general avian use should be conducted.

2. **ADDITIONAL SITE PLAN REQUIREMENTS.** The applicant shall submit a site plan in full compliance with Section 800 of this zoning ordinance for each SES and other solar energy appurtenances. Additional requirements for a SES 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 SES 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.** Utility-Scale/Solar Farms SES shall meet the following standards and requirements:

a. **Location of Utility-Scale/Solar Farms SES.**

i. All SES must comply with the requirements established in the Kawkawlin Township Zoning Ordinance.

The following setbacks, from any adjacent road right-of-way and all property lines, shall be applicable to a Utility Scale/Solar Farms SES:

Property Lines from Allowed Zoning Districts ——— ~~500 ft.~~ 500 feet

Adjacent Road Right-of-Way \_\_\_\_\_ 150 feet

A setback is not required for any component that is part of the Utility Scale/Solar Farms SES from the common property lines of adjacent leased property. (For example, when several adjacent/abutting parcels are leased for a Utility Scale/Solar Farms SES, a setback among the shared/common property lines is not required.)

In no case shall an SES be located in front of the rear wall of any residential structure located on the lot or on any other lot within 500 feet thereof.

Project design and layout will ensure any structures or other improved areas (for transformers, fans, circuit boards, etc.) located within the fenced/improved area shall be located a minimum of 500 feet from any residential ~~structure~~ dwelling, church, school, family or group child day-care home, and bed and breakfast establishments.

ii. Solar panels and associated racking is limited in height to fourteen (14) feet), measured from the existing natural grade at the base of such equipment to the highest point of the system.

iii. The minimum lot area required for a Utility Scale/Solar Farm SES shall be ~~five~~ forty (~~540~~) acres, subject to complying with all other requirements of this ordinance.

iv. SES adjacent to property consisting of less than five (5) acres that is zoned R-1, R-1A, or R-2 shall have a minimum setback of ~~1,500~~ 500-feet.

v. All structures related to a Utility-Scale/Solar Farms SES shall be subject to the dimensional and locational requirements for structures in the underlying zoning district. ~~All other structures related to a SES shall comply with the dimensional and locational standards of structures of the district where the facility is located.~~

vi. Any component or part of a Utility Scale/Solar Farms SES may be sited at a reduced setback if an agreement is signed and recorded with adjoining/adjacent property owner(s).



~~v.vii.~~ Requirements for landscaping or vegetative screening are in subsection e, below.

~~b. Parcel Coverage: SES components, racking, and related equipment and facilities on a parcel is limited to no more than 51% of the parcel's area.~~

~~e.~~**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 SES to the electrical grid connection shall be located and maintained underground. Burial depth shall be at a depth that causes no known environmental, land use, or safety issues. Depth shall be a minimum of six (6) feet below grade, be deeper than the drain tiles, and be in compliance with all State codes. The Planning Commission may waive the burial requirement and allow above-ground structures in limited circumstances, such as where geography precludes burial or in the case of a demonstrated benefit to the Township. The waiver shall not be granted solely on the basis of cost savings to an applicant. Request for variation shall consider aesthetics, future use of land, and effect on nearby landowners.
- iv. Electrical Interference:
  - a. The design and construction of SES shall not produce electrical emissions that would interfere with aircraft communications systems or navigation equipment.
  - b. Each SES shall be designed, constructed, and operated so as not to cause radio and television or other communication interference. In the event that verified interference is experienced and confirmed by a licensed engineer, the Applicant must produce confirmation that said interference had been resolved to residents' satisfaction within ninety (90) days of receipt of the complaint. Any such complaints shall follow the process stated in Complaint Resolution sections.
- v. If the SES 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. A contractor installing a SES shall inform the Bay County Road Commission (BCRC) of all the roads they propose to use as haul routes to each construction site. This shall be done prior to beginning any construction at any site. The identified haul routes shall be videotaped by either the BCRC or



contractor prior to the beginning of construction and after construction has been completed. Upon review of the before and after videos and physical review of each roadway, the BCRC shall determine what damage, if any, was caused by the contractor's vehicles. If it is determined damage to the road was caused by the contractor's vehicles or activities, the contractor shall work with the BCRC to determine the extent of the roadway repair needed. This may include, but is not limited to, crush and shaping the roadway, placing additional aggregate, placing a new chip seal surface (two courses minimum), placing a new asphalt surface or a combination thereof. In all cases, the roadway shall be constructed in accordance with the BCRC's current specifications and requirements associated with the type of roadway to be installed. All costs for said work shall be the responsibility of the contractor.)

- viii. The applicant must obtain any drain permits from the Bay County Drain Commission or MDEQ, as applicable
- ix. The design of SES buffers shall use materials, colors, textures, screening and landscaping, that will blend the facility into the natural setting and existing environment.
- x. 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~~ comply with the requirements of Section 405 (Exterior Lighting).
- xi. 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.
- xii. Transfer of Sale: If a SES ownership changes, the Township shall be notified and the special land use permit, may be amended administratively by the Township Board.
  - a. Change in ownership alone shall be considered a minor amendment to the special land use and may be approved administratively without a public hearing.
  - b. Any proposed changes to the operating procedure or approved site plan shall be amended and resubmitted for Township review according to the procedures for all Utility Scale/Solar Farm SES as outlined herein, including a public hearing.
  - c. Upon transfer or sale, the cash bond shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security adjusted to account for the new estimate.
  - d. The new owner/operator must meet with the Kawkawlin Township Planning Commission within sixty (60) days of the change in ownership.
- xiii. Stray Voltage. The applicant shall be responsible for compensation to residents for property, including livestock, health or other damage by stray

voltage caused by a SES. The applicant shall demonstrate SES prohibits stray voltage, surge voltage, and power from entering ground.

- xiv. Protection of Adjoining Property. In addition to the other requirements and standards contained in this section, the Planning Commission shall not approve any SES unless it finds that the SES will not pose a safety hazard or unreasonable risk of harm to the occupants of any adjoining properties or area wildlife.

- c. **Noise.** As part of the application, and prior to installation, the applicant shall provide noise modeling and analysis that will demonstrate the SES will not exceed the maximum permitted noise levels.

Noise generated by a SES shall not exceed 45 dB(A) Lmax at the property line of non-participating parcels. The LMax (0.125-sec) metric shall be used for all measurements and modeling. Between the hours of 10:00 pm and 6:00 am, the sound pressure level generated by a SES shall not exceed 40 dB(A)/40 dB(A) measured at the property line of non-participating parcels. The LMax (0.125-sec) metric shall be used for all measurements and modeling. Modeling and analysis shall conform to any applicable national standards pertaining to noise and sound pressure measurements.

After installation of the SES, 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 SES shall have a nonglare coating and be of a neutral color.
- ii. All SES shall be placed such that concentrated solar glare does not project onto nearby inhabited structures or roadways and be considered a nuisance.
- iii. 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. Applicant shall provide a mitigation plan at the time of application.
- iv. The design and construction of SES shall not produce light emissions, either direct or indirect (reflective), that would interfere with pilot vision and/ or traffic control operations.

**e. Landscaping**

- i. [Landscaping and vegetative screenings are required to minimize visual off-site impacts.](#)

- ~~i.~~ii. 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.~~iii. All SES shall have a minimum landscape buffer of 20 feet in width. The buffer shall be designed with two rows of landscaping in a staggered layout, contain evergreen trees or bushes planted no more than eight feet apart, and all trees shall be at least ~~four~~six 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~~14 feet.
- ~~iii.~~iv. Land clearing of natural vegetation shall be limited to that which is necessary for the construction, operation, and maintenance of the SES 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.~~v. Each owner/operator of a SES 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.~~vi. 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. SES ~~may~~must be surrounded by a chain link fence ~~not to exceed~~ six feet in height. The fence shall be designed to restrict unauthorized access.
  - ii. No portion of the SES shall contain or be used to display advertising. The manufacturers' name, phone number, 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.
- g. **Signage.** Each SES shall have one sign SES site, located at the roadside and one sign at each entrance to the site, easily visible throughout four seasons. Signs shall be two square feet in area and be placed at the road right of way. Signs shall be the same and shall uniquely identify each SES. The sign shall contain at least the following:
- i. Warning high voltage.
  - ii. Participating landowner's name, SES owner's name, and operator's name.

- iii. Emergency telephone numbers and web address. (list more than one number).
- iv. If SES uses fencing, place signs on the perimeter fence at fence entrance door.
- v. Unique identification such as address of SES. If more than one SES on access drive, units shall have further identification such that first responders can positively identify. An identification example is “~~4585-55~~ 3-Mile S. Parish Rd, ~~Bay City~~ Kawkawlin, MI, ~~48706~~ 48631.”

**5. ABANDONMENT AND DECOMMISSIONING.**

- a. Abandonment: A Utility-Scale/Solar Farm SES that ceases to produce energy on a continuous basis for ~~6-three (3)~~ three (3) months will be considered abandoned unless the current responsible party (or parties) with ownership interest in the SES provides substantial evidence (updated every ~~6-three (3)~~ three (3) months after ~~6-three (3)~~ 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 notify the Kawkawlin Township Board of Trustees at the time of abandonment of the SES. 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 SES.

i. Removal and Site Renovation – A condition of every approval shall be adequate provision for the removal of SES facilities in their entirety whenever they cease to actively produce power for ninety (90) days or more. The Planning Commission can grant an extension of an additional ninety (90) days upon the SES owner demonstrating that the facilities will be put back into use, in which case the SES owner must provide data indicating the repaired SES is in good operational condition and functioning at efficiency similar to surrounding SES. Removal shall include the proper receipt of a demolition permit from the Building Official and proper restoration of the site, including but not limited to all participating parcels, to original condition. Removal of the structure, wiring, and all other components in their entirety.

~~i.~~ ii. Upon determination of abandonment, the Zoning Administrator shall notify the party (or parties) responsible that they must remove the SES and restore the site to its condition prior to development of the SES within ~~six three (63)~~ three (3) months of notice by the Planning Commission or its designee. Removal and restoration shall include the proper receipt of a demolition permit from the Building Official and proper restoration of the site, including but not limited to all participating parcels, to original condition. Removal of the structure, wiring, and its accessory use facilities shall include removing foundations, wiring, and all other components in their entirety. Restoration must be completed within 365 days of non-operation.

~~ii.~~ iii. If the responsible party (or parties) fails to comply, the Township or its designee, may remove the SES, 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 SES -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.
    2. Complete restoration of property to condition prior to development of the SES .
  - 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 SES to a depth of six feet below grade.
    2. All access roads to the SES 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 SES 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 SES shall include a description of the financial security guaranteeing removal of the SES which will be posted prior to receiving a building permit for the facility. The security shall be a: ~~1) cash bond;~~ 21) cash deposit in a trust account; ~~irrevocable bank letter of credit;~~ or 32) performance bond in a form approved by the Township or any other financial instrument uninterrupted for the life of the project. The amount of such guarantee shall be no less than the estimated cost of removal and shall 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.

Required cash deposit and security based on each SES and is to be backed by owner assets, operator assets, parent company assets, and leaseholder assets approved by the Planning Commission.

- 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.

The amount of each SES security guarantee shall be determined by way of a certified ~~estimated~~ estimate by the applicant's design professional, which shall be reviewed by a certified engineer hired by the Township for its adequacy. The amount of the security guarantee shall be 125% of the amount, certified by the ~~Township Engineer~~ Township's consulting engineer, and shall be in the form of a cash deposit. That deposit shall be updated and supplemented every two (2) years at the rate of 1.5 times CPI (consumer price index) for each year.

- 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.

Such financial guarantee shall be deposited with the Township Treasurer after a special use has been approved but before construction operations begin on the SES project. Failure to keep such financial security in full force and effect at all times while the structure exists shall constitute a material and significant violation of a special use approval and this ordinance, and shall subject the Applicant to all available remedies to the Township, including enforcement action, fines, revocation of the special use approval and SES removal.

The Applicant shall be responsible for the payment of all attorney fees, other professional fees, and other related costs incurred by the Township in the event that the structure is not voluntarily removed, and the Township has to enforce removal.

The Applicant/Owner and Operator shall execute any and all documents (as provided or approved by the Township), sufficient to provide the Township with a perfected security interest in monies deposited with the Township for the purpose of decommissioning any SES.

## 6. COMPLAINT RESOLUTION.

It is the intent of this ordinance to provide a mechanism to address and resolve complaints prior to the expenditure of significant funds by the Township and/or operator for investigation and resolution. Therefore, the Township shall perform an initial vetting of complaints prior to requesting funds from the operator for complaint resolution efforts. Complaints of noncompliance with the requirements of this ordinance shall be resolved in the following manner:

- a. The Utility-Scale/Solar Farm SES Applicant shall submit a detailed, written complaint resolution process developed by the SES Applicant to resolve complaints concerning the construction or operation of the SES. 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.
- c. Complaints shall be submitted to the Township Supervisor in writing from the affected property owner, or written designee, including name, address, contact information, and specific complaint. The written complaint shall include the specific section of the ordinance which is believed to be violated. The Supervisor shall cause the complaint to be added to the agenda of the next Township Board meeting in accordance with the procedure for setting the agenda.
- d. The Supervisor shall submit to the operator of record notice of all written complaints to the Township within thirty (30) days of receipt of any complaint. Complaints received by the Township and the date of any Township Board meeting where complaints may be considered shall be communicated to the operator at least 10 days prior. The notice shall state that the Township Board may determine that the SES is in violation of its permit and is therefore a nuisance and may be ordered out of service until the owner operator can demonstrate compliance with the requirements of this ordinance.
- e. Upon review, if the Township Board, by an affirmative vote of the majority of the members present, deems a complaint sufficient to warrant an investigation, the Township Board shall notice the owner(s) and/or operator of the SES that an investigation has been requested by the Board.
- f. An SES owner (and/or operator) shall be required as a condition of the operation to fund an escrow account for investigation of complaints for, but not limited to, glare, stray voltage, noise, and signal interference in the amount of \$15,000.00 to be use at the discretion of the Township Board. When the escrow account balance is below \$5,000.00 the Township shall notify the owner, and it shall replenish the account in the amount of \$15,000.00 within 45 days.
- g. If the SES is found in violation of this ordinance, the owner (and/or operator) shall take immediate action to bring the SES into compliance. If the owner fails to bring the operation into compliance within thirty (30) days, the Township may seek any relief at law or equity to abate the nuisance and may also issue a municipal civil infraction citation. Each violation for which the owner(s) and/or operators are deemed



responsible shall result in a \$500.00 fine. Each day of non-compliance shall be a separate offense.

h. Any SES found by the Township Board to be in violation of this ordinance set forth herein shall be considered a nuisance and the SES operations shall cease until such time as the SES owner/operator demonstrates compliance with the requirements of this ordinance.

i. Board decisions on complaints shall be transmitted to the Planning Commission within 180 days from their written submittal to the Township Supervisor.

~~6. — It is the intent of this ordinance to provide a mechanism to address and resolve complaints prior to the expenditure of significant funds by the Township and/or operator for investigation and resolution. Therefore, the Township shall perform an initial vetting of complaints prior to requesting funds from the operator for complaint resolution efforts. Complaints of noncompliance with the requirements of this ordinance shall be resolved in the following manner:~~

~~7. The Utility Scale/Solar Farm SES Applicant shall submit a detailed, written complaint resolution process developed by the SES Applicant to resolve complaints concerning the construction or operation of the SES. The complaint resolution process must be approved by the Planning Commission as a condition of approval of the special land use permit application.~~

~~8. The Planning Commission shall be kept appraised 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 month by the applicant to the Planning Commission.~~

~~9. Receiving and Forwarding of Complaints: A third party answering switchboard, website or equivalent, paid for by the Applicant or SES or Testing Facility owner. The cost to maintain and support shall be funded in the amount of \$10,000.00 to be placed in escrow and be replenished at least every two (2) years by the Applicant or SES owner. The Planning Commission shall select a complaint resolution process that is independent of the facility operator or owner and that reports to the Township first and operator second.~~

~~10. Investigation of Complaints: Township shall initiate an investigation into a complaint within sixty (60) days utilizing escrow funds to hire the appropriate expert(s).~~

~~11. Hearing of Complaints: Township Board shall set a hearing date within sixty (60) days of completion of Investigation of Complaints where experts, residents and/or Applicant may present information before the Township Board. Notice of hearing shall be via certified mail.~~

~~12. Decision of Complaints: Township Board shall issue a decision and corrective actions within forty-five (45) days from Hearing of Complaints.~~

~~13.~~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 SES, the provisions of this section shall control.

## Add to Article II – Definitions:

1. **Ancillary Solar Equipment.** Any accessory part or device of a solar energy system that does not require direct access to sunlight, such as batteries, electric meters, converters, or water heater tanks.
2. **Decommissioning Plan.** A document that details the planned shut down and/or removal of a Solar Energy System.
3. **Laydown Yard.** A laydown yard is a temporary worksite that Supports is necessary for the construction, operation, maintenance, and decommissioning of a SES. A laydown yard is a temporary site and is used to house employee office sites and facilities, store materials, components and equipment, and to provide parking and locations for temporary facilities such as construction trailers. Hours of operation for a laydown yard shall be similar to other kinds of construction sites, typically from 7:00 a.m. to 7:00 p.m. during weekdays, with hours limited on the weekends from 10:00 a.m. to 4:00 p.m.
4. **Public Road.** Any road or highway which is now or hereafter dedicated to the public and under the jurisdiction of the Bay County Road Commission.
5. **Solar Collector Surface.** Any part of a solar energy system that absorbs solar energy for use in the system's transformation process. The collector surface does not include frames, supports, and mounting hardware.
6. **Solar Energy.** Radiant energy received from the sun that can be collected in the form of heat or light by a solar energy system.
7. **Solar Energy System (SES).** A system (including solar collectors and ancillary equipment) either affixed to a permanent principal or accessory building or functioning as a freestanding structure, that collects, stores, and distributes solar energy for heating or cooling, generating electricity, or heating water. Solar Energy Systems include, but are not limited to, photovoltaic (PV) power systems and solar thermal systems.
  - a. **Small Scale/Personal SES.** A solar energy system that is accessory to the principal use on the site, for which the total surface area of all Solar Collector Surfaces does not exceed 1,500 square feet and from which the sale and distribution of excess available energy to an authorized public utility for distribution shall be prohibited unless strictly an incidental aspect of the system and not its primary purpose. Sale of excess energy to anything other than an authorized public utility shall be prohibited.
  - b. **Utility-Scale/Solar Farm SES.** A solar energy system that meets one or more of the following:
    - i. Is primarily used for generating electricity for sale and distribution to an authorized public utility;
    - ii. The total surface area of all Solar Collector Surfaces exceeds 1,500 square feet; and/or
    - iii. Is not an accessory use or structure.
  - c. **Building-Mounted SES.** A solar energy system affixed to a permanent principal or accessory building (i.e. to a roof or wall).
  - d. **Ground-Mounted SES.** A freestanding solar energy system that is not attached to and is separate from any building on the parcel of land on which the solar energy system is located and instead relies on its own support system attached to the ground.
8. **Solar Glare.** The effect produced by sunlight reflecting from a solar panel with an intensity sufficient to cause a loss in visibility.

**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 [Agricultural/Rural Residential District](#) chart, [Highway Commercial District](#)~~High Commercial~~ (C-2) chart, and Light Industrial [District](#) (I-1) chart.