

Large-Scale Solar Photovoltaic Installations

SECTION 29.01 INTENT AND PURPOSE

The intent of this Chapter is to promote the creation of large-scale ground-mounted solar photovoltaic installations by providing standards for the placement, design, construction, operation, monitoring, modification, and removal of such installations that address public safety, and minimize impacts to adjacent uses. The provisions set forth in the Chapter shall apply to the construction, operation, and/or repair of large-scale ground-mounted solar photovoltaic installations. A Large-Scale Ground-Mounted Solar Photovoltaic Installation is defined as solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted and has a generating capacity greater than 150 kilowatts (kW). It is also known as a Solar Energy Facility (SEF).

SECTION 29.02 GENERAL REQUIREMENTS

- A. Special Use. Large-scale ground-mounted solar photovoltaic installations shall be considered a special use in the Agricultural (A), High Density Residential and Recreational (R-7), Heavy Commercial (B-3), Planned Enterprise District (I-1), and the Heavy Industrial (I-2) zoning districts. Prior to the construction of a large-scale ground-mounted solar photovoltaic installation, applications for Type II Site Plan Review and a Special Use permit must be filed and approved by the Hampton Charter Township Planning Commission.
- B. 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 Chapter 19. 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 Chapter 14. 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).
- C. Compliance with Laws, Ordinances, and Regulations. The construction and operation of all large-scale ground-mounted solar photovoltaic installations shall be consistent with all applicable local, state, and federal requirements. All buildings and fixtures forming part of a solar photovoltaic installation shall be constructed in accordance with the Michigan Building Code.
- D. Building Permit and Building Inspection. No large-scale ground-mounted solar photovoltaic installation shall be constructed, installed or modified as provided in this section without first obtaining a building permit.

E. Fees.

1. Applications to build a large-scale ground-mounted solar photovoltaic installation in Hampton Charter Township must be accompanied by the fees required for a Special Use Permit and a Type II Site Plan Review.
2. Escrow for Permitting Costs: An escrow account in the form of a cash deposit of not less than \$10,000, 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 Attorney, Township Planner, and Township 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 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 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, engineering, electrical, environmental, economic, wildlife, health, and land-use.

SECTION 29.03 SPECIAL LAND USE PERMIT 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 Solar Energy Facility shall also be dated to indicate the date the application is submitted to Hampton Township.
- B. **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.
- C. **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.
- D. **Insurance.** Proof of the applicant's public liability insurance with a rated carrier of at least \$3,000,000 per occurrence to cover the Solar Energy Facility, the Township, and the landowner. Applicant shall provide yearly proof of insurance to Township that confirms active coverage for the Applicant, Township, and landowners.
- E. **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).

- F. **Manufacturers' Material Safety Data Sheet(s).** Documentation shall include the type and quantity of all materials used in the operation of all equipment.
- G. **Site Plan.** A site plan that complies with Chapter 14 and Section 29.04.
- H. **Visual Simulations.** Photo exhibits visualizing the proposed Solar Energy Facility, with emphasis on visualizing the location of any required fences, landscaping, access roads, and setbacks from adjacent non-participating property.
- I. **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.
- J. **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.
- K. **Decommissioning.** Copy of the decommissioning plan and a description of how any surety bond is applied to the decommissioning process.
- L. **Complaint Resolution.** Description of the complaint resolution process.
- M. **Noise Model.** Visual depiction of the noise model for the Solar Energy Facility.
- N. 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.

SECTION 29.04 ADDITIONAL SITE PLAN REQUIREMENTS The applicant shall submit a site plan in full compliance with Chapter 14 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.
- F. A site grading, erosion control and storm water drainage plan.
- 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. Landscape/Screening Plan detailing all proposed changes to the landscape of the site, including temporary or permanent roads or driveways, grading, vegetation clearing, and planting.
- I. All new infrastructure, both above and below ground, related to the project. This includes inverters and batteries.
- J. Identification of a construction/set-up/laydown area.

SECTION 29.05 STANDARDS AND REQUIREMENTS

- A. All proposed facilities shall comply with all applicable local, state, and federal standards and requirements, including electrical, building, and drain codes, including the following, as applicable:
 - 1. Department of Environment, Great Lakes, and Energy (EGLE)
 - 2. Michigan Department of Agriculture and Rural Development (MDARD)
 - 3. U.S. Fish and Wildlife Service (USFWS)
 - 4. Federal Aviation Administration (FAA)
- B. Setbacks and Dimensions
 - 1. Front Yard: The front yard shall be at least 300 feet from the road right-of-way line.
 - 2. Side Yard: Each side yard shall be at least 100 feet. Where a large-scale ground-mounted solar photovoltaic installation abuts an existing residence or a residentially-zoned lot, the side yard shall not be less than 250 feet.
 - 3. Rear Yard: The rear yard shall be at least 100 feet. Where a large-scaled ground-mounted solar photovoltaic installation abuts an existing residence or a residentially-zoned lot, the rear yard shall not be less than 250 feet.
 - 4. Internal Property Lines: A SES is not subject to property line setbacks for a common property line of two or more participating parcels.
 - 5. Height: Large-scale ground-mounted solar photovoltaic installations shall not exceed twenty (20) feet in height above the ground.

6. Minimum Lot Area shall be 20 acres.
 7. From Other Structures on the Same Lot: The large-scale ground-mounted solar photovoltaic installation shall be at least 15 feet from any other structure on the same lot.
 8. No maximum lot coverage applies to Solar Facilities.
- C. Appurtenant Structures. All appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with other structures in the installation. Whenever reasonable, structures should be shielded from view by vegetation to avoid adverse visual off-site impacts. 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 in accordance with applicable laws and regulations.
 - D. Lighting. Lighting shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. It shall conform to Sections 3.24 and 15.08 of this zoning ordinance.
 - E. Signage. Signs shall comply with the requirements described in Chapter 18. Further, large-scale ground-mounted solar photovoltaic installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar photovoltaic installation.
 - F. Utility Connections. 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 (6) feet underground. 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.
 - G. The applicant must obtain a driveway permit from the Bay County Road Commission or MDOT, as applicable.
 - H. The applicant must obtain any drain permits from the Bay County Drain Commissioner or EGLE, as applicable.
 - I. 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.
 - J. Transfer or Sale. In the event of a transfer or sale of the SEF, the Township shall be notified in writing within 30 days of such transfer or sale.
 1. 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 SEF as outlined herein, including a public hearing.
 2. Upon transfer or sale, the financial security for decommissioning shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security adjusted to account for the new estimate.

- K. Noise. A SES shall not produce any sound that causes disturbance that exceeds 45dba (Lmax) at the property line at any time. 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. Site plans shall include modeled sound isolines extending from the sound source to the property line to demonstrate compliance with this standard.
- L. Protection of Adjoining Property. In addition to the other requirements and standards contained in this section, the applicant shall demonstrate that the SEF will not pose a safety hazard or unreasonable risk of harm to the occupants of any adjoining properties or area wildlife.
- M. Communication. Each SEF 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 90 days of receipt of the complaint. Any such complaints shall follow the process stated in Complaint Resolution sections.
- N. Light and Glare:
1. All Solar Energy Facilities shall be placed such that solar glare does not project onto nearby inhabited structures or roadways, and be considered a nuisance.
 2. 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.
 3. 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.
 4. The applicant may be required to provide a glint and glare study to demonstrate the effects of glint and glare on nearby inhabited structures or roadways.
- O. Security and Screening
1. An information sign shall be posted and maintained at the entrance(s), which shall list the name and emergency contact phone number and web address of the operator
 2. Solar energy facilities may be surrounded by a chain link fence not to exceed six (6) feet in height. The fence shall be designed to restrict unauthorized access. Such fence may be placed within the required setback. The fence may be placed between the Solar Energy Facility and the landscaping buffer.
 3. Landscaping
 - a. Land clearing of natural vegetation shall be limited to that which is necessary for the construction, operation, and maintenance of the Solar Energy Facility per practices of best management of natural areas or good husbandry of the land or forest other prescribed by applicable laws, regulations, and bylaws.

- b. All Solar Energy Facilities shall have a minimum landscape buffer depth of 20 feet. 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 ten feet within three growing seasons. The trees or bushes may be trimmed but can be no lower than a height of ten feet.
- c. When adjacent to residentially zoned land or land used for residential purposes, the Solar Energy Facilities shall have a berm not less than 5 feet high for the width of the zone or parcel upon which the residential use is located. Landscaping requirements shall be planted on the berm.
- d. 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.
- e. Applicant must provide a detailed landscape maintenance plan for the proposed Solar Energy Facility, and surrounding area. The plan shall include a ground cover and vegetation establishment and management plan and include provisions that will be employed to maintain and promote native vegetation while minimizing the proliferation of weeds during and following construction.

Q. Complaint Resolution

- 1. The applicant shall develop a process to resolve complaints from nearby residents concerning the construction or operation of the project. All complaints shall be acknowledged within 10 days of receipt of such complaint. The Township supervisor shall also be notified of each complaint. The process may use an independent mediator or arbitrator and shall include a time limit for acting on a complaint. The process shall not preclude the local government from acting on a complaint.
- 2. During construction, the applicant shall maintain and make available to nearby residents a telephone number where a project representative can be reached during normal business hours.
- 3. A report of all complaints and resolutions to complaints shall be filed with the township on a quarterly basis.

R. Reasonable Conditions. In addition to the requirements of this section, the Planning Commission may impose additional reasonable conditions on the approval of any Utility Scale SEF as a special land use.

SECTION 29.06 DECOMMISSIONING AND ABANDONMENT

A. 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 special use permit, which shall include:

1. The anticipated life of the project;
2. The estimated decommissioning costs. Salvage value shall not be considered when estimating decommissioning costs.
3. The method of ensuring that funds will be available for decommissioning and restoration, to include but not limited to:
 - a. Complete removal of all non-utility owned equipment, conduit, structures, fencing, roads, solar panels and foundations.
 - b. Complete restoration of property to condition prior to development of the Solar Energy Facility.
 - c. The anticipated manner in which the project will be decommissioned, and the site restored.
 - d. A provision to give notice to the Township one year in advance of decommissioning.
 - e. 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.
 - f. The security shall be a: 1) cash bond, 2) cash surety bond, 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 shall include a provision for inflationary cost adjustments. 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.
 - g. The estimate shall be prepared by the engineer for the developer and shall be approved by the Township.
4. The timeframe for completion of decommissioning activities.
5. A condition of the Surety Bond shall be notification by the surety company to the Township 30 days prior to its expiration or termination.

B. 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,

facilities and underground wiring and completely restore the property to its condition prior to development of the Solar Energy Facility.

1. Upon determination of abandonment, the Planning Commission or its designee 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 months of notice.
2. 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.

SECTION 29.07 REPOWERING

Repowering: Reconfiguring, renovating, or replacing an SEF to maintain or increase the power rating of the SEF within the existing project footprint.

- A. If at the end of the lease period, or the useful life of the SEF, the applicant/owner decides to retrofit or repower the installation by reconfiguring, renovating, or replacing the existing components,
 - a. The Applicant/Owner shall provide the Planning Commission a proposal to change the project. It shall be considered a new application, subject to the ordinance standards at the time of the request.
 - b. The Applicant/Owner would not need to apply for a new permit if they are performing routine maintenance, as described in the provided maintenance plan.

SECTION 29.08 CONFLICTING PROVISIONS

In the event of a conflict between any provision in this Chapter and any other section of this Zoning ordinance with regard to large scale solar energy facilities, the provisions in this Chapter shall prevail.