

## CHAPTER XXVIII

### AMENDMENT

36A-15

EFF: 2-10-11

#### SECTION 28.01 INTENT AND PURPOSE

General solar energy systems come in a variety of sizes and designs. General solar energy systems are typically designed as a single solar panel, or a set of solar panels, which can be either freestanding structures or structurally attached panels. Such panels contain an interconnected assembly of photovoltaic cells including associated inverters, batteries and interconnection wiring. This technology harnesses sunlight and converts it into energy which can be used directly on-site. Because of the variety of available solar energy system designs, the purpose of this Chapter is to establish minimum siting requirements for general solar energy systems in the Township. These requirements balance the development of a clean renewable energy resource while minimizing potential adverse impacts between land uses. The overall intent of this Chapter is to ensure that general solar energy systems are compatible for private use in agricultural, residential and business settings.

#### SECTION 28.02 ACCESSORY STRUCTURES

A general solar energy system shall be considered an accessory structure in all zoning districts and shall not be erected, constructed, installed, or modified as provided in this Ordinance, including conformance to Sections 3.07, 3.08 and 3.09, unless a zoning permit has been issued to the Owner(s) or Operator(s). A general solar energy system also requires approved mechanical, electrical, and building permits. An exception to the requirements of Section 3.07, 3.08, and 3.09 may be granted when a yard has a privacy fence. Yards with a privacy fence may be allowed to install ground-mounted solar panels within the setback area, only when approved by the Zoning Administrator. When the solar panel is directly adjacent to the privacy fence, the height of the solar panel shall not exceed the height of the privacy fence. However, for every three (3) feet the solar panel is separated from the privacy fence, the solar panel may have an additional foot of height. In no case shall the ground-mounted solar panel exceed eight (8) feet in height.

SECTION 28.03 SITING AND DESIGN REQUIREMENTS

All general solar energy systems are subject to the following minimum requirements:

- (a) A general solar energy system exceeding two (2) square feet in area is not permitted in any front yard, on any face of a building or structure facing a street unless integrated with the construction of said building or structure, or in view of any adjacent street, except roof-mounted solar panels as set forth below.
- (b) A general solar energy system is limited to a maximum generating capacity of up to 30 kilowatts (Kw) in residential districts and up to 150 kilowatts (Kw) in all other zoning districts. These limits do not apply to solar energy systems that are integrated into the design of a building or structure, such as, though not limited to, flexible photovoltaic solar cells packaged in the form of roofing shingles.
- (c) The reflection angles of solar energy systems should be oriented away from neighboring windows and, to the extent possible, away from public areas, to minimize glare on adjacent properties and roadways, As such, solar panels shall be finished with non-reflective coatings and exposed frames and components shall have a non-reflective surface.
- (d) A ground-mounted general solar energy system shall:
  - 1. Be located in a side or rear yard only.
  - 2. Not exceed the allowed maximum lot coverage for accessory structures.
  - 3. Not exceed eight (8) feet in height above the ground.
- (e) Roof-mounted general solar energy systems:
  - 1. Permitted roof-mounted solar panels shall include integrated solar panels as the surface layer of the roof structure with no additional apparent change in relief or projection (the preferred installation), or separate flush-mounted solar panels attached to the roof surface. A flush-mounted solar panel is anchored directly against the roof. It is parallel to the surface of the roof and does not stick up and away

from the roof.

2. Separate flush-mounted solar panels shall be located on a rear-or side-facing roof, as viewed from any adjacent street, unless such installation is proven to be ineffective or impossible. The removal of potential obstructions such as interceding vegetation shall not be sufficient cause for permitting a font-facing roof installation.
  
3. Separate flush-mounted solar panels installed on a building or structure with a sloped roof surface shall not project vertically above the peak of the roof to which it is attached, or project vertically more than five (5) feet above a flat roof installation.

## CHAPTER XXIX

### AMENDMENT

36A-15

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#### 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).

#### 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) 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.

- (c) 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.
- (d) Fees. 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.

SECTION 29.03 DESIGN STANDARDS

(a) Setbacks

1. Front Yard: The front yard shall be at least fifty (50) feet from the road right-of-way line.
  2. Side Yard: Each side yard shall be at least twenty-five (25) feet. Where a large-scale ground-mounted solar photovoltaic installation abuts a residentially-zoned lot, the side yard shall not be less than fifty (50) feet.
  3. Rear Yard: The rear yard shall be at least twenty-five (25) feet. Where a large-scaled ground-mounted solar photovoltaic installation abuts residentially-zoned lot, the rear yard shall not be less than fifty (50) feet.
  4. Height: Large-scale ground-mounted solar photovoltaic installations shall not exceed fifteen (15) feet in height above the ground.
  5. Minimum Lot Area shall be five (5) acres.
  6. From Other Structures on the Same Lot: The large-scale ground-mounted solar photovoltaic installation shall be at least fifteen (15) feet from any other structure on the same lot.
- (b) Appurtenant Structures. All appurtenant structures to shall be subject to reasonable regulations concerning the bulk and height of structures, lot area, setbacks, open space, parking, and building coverage requirements. All such 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 impacts.

- (c) Lighting. Lighting shall be limited to that required for safety and operational purposes, and shall be reasonable shielded from abutting properties. Where feasible shall be directed downward and conform to Sections 3.24 and 15.08 of this zoning ordinance.
- (d) 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.
- (e) Utility Connections. All utility connections from the solar photovoltaic installation shall be placed underground, depending on site conditions and any requirements of the utility provider.
- (f) Screening. When a large-scale ground-mounted solar photovoltaic installation is adjacent to residentially-zoned lot, side yard and rear yard screening may be required as determined by the Planning Commission to address specific site needs at the time of Site Plan Review.

SECTION 29.04 OTHER SPECIAL USE PERMIT APPLICATION REQUIREMENTS

- (a) Site Control. The applicant shall submit documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed installation.
- (b) Operation & Maintenance Plan. The applicant shall submit a plan for the operation and maintenance of the large-scale ground-mounted solar photovoltaic installation, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for operational maintenance of the installation.

- (c) Emergency Services. Upon request by Hampton Township, the owner/operator of the installation 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/operator shall identify a responsible person for public inquiries throughout the life of the installation.
  
- (d) Solar Photovoltaic Installation Conditions. The large-scale ground-mounted solar photovoltaic installation owner/operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to local emergent response personnel. The owner/operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s).
  
- (e) Site Clearing. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation, and maintenance of the installation.

SECTION 29.05 ABANDONMENT OR DECOMMISSIONING

- (a) Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the large-scale ground-mounted solar photovoltaic install shall be considered abandoned when it fails to operate for more than one year. If the owner/operator installation fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment of the proposed date of decommissioning, Hampton Township is permitted to enter the property and physically remove the installation.
  
- (b) Removal Requirements. Any large-scale ground-mounted solar photovoltaic installation which has reached the end of its useful life or has been abandoned consistent with this section of the zoning ordinance shall be removed. The owner/operator shall physically remove the installation no more than 150 days after the date of discontinued operations. The owner/operator shall notify the Planning Commission by certified mail of the proposed date of discontinued operations and plans for removal.

(c) Decommissioning shall consist of:

1. Physical removal of all large-scale ground-mounted solar photovoltaic installations, structures, equipment, security barriers, and transmission lines from the site.
2. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
3. Stabilization or re-vegetation of the site as necessary to minimize erosion.

(d) Financial Surety. The applicant for a large-scale ground-mounted solar photovoltaic installations shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event Hampton Township must remove the installation, in an amount and form determined to be reasonable by the Planning Commission, but in no event to exceed more than 125 percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the applicant. The project proponent shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.