

Chapter 7

Special Use Permits

Add the following text to the end of Table 2 for uses in the Agricultural (AG) District:

Chapter 3 – District Regulations

Uses By Special Permit

Use: Solar Energy Systems, Large

Regulated In: Section 7.26 – Solar Energy Systems, Large

Uses By Special Permit

Use: Solar Energy Systems, Small

Regulated In: Section 7.27 – Solar Energy Systems, Small

Add the following text as Section 7.26:

Section 7.26 – Solar Energy Systems, Large

The purpose and intent of these regulations is to allow and promote the use of renewable energy as an alternative energy source and to provide associated place, land development, installation, and construction regulations for large solar energy systems facilities subject to reasonable conditions that will protect the public health, safety, and welfare. These regulations establish minimum requirements for large solar farm facilities while promoting a renewable energy source in a safe, effective, and efficient manner.

1. Minimum Lot Size and Placement: A minimum of ten (10) acres of land is required. Large solar energy systems shall be located within two (2) miles of an electrical substation in existence at the time of adoption of these regulations.
2. Height Restrictions: All photovoltaic panels solar devices and support structures located on a large solar energy system facility shall be restricted to a maximum height of ten (10) feet when orientated at a maximum tilt as measured from the existing grade.
3. Road Frontage Setback: All photovoltaic solar devices and support structures associated with such facilities, including perimeter fencing, shall be setback a minimum of three hundred (300) feet from any road right-of-way line. This road frontage setback area may be occupied by other uses as allowed within the designated zoning district of the subject property.

4. Property Line Setbacks: In addition to the required road frontage setback, all photovoltaic solar devices and support structures associated with such facilities, including perimeter fencing, shall be setback a minimum of three hundred (300) feet from all other property lines.
5. Landscape Greenbelt: Landscaping shall consist of a minimum twenty (20) foot wide vegetated greenbelt around the entire perimeter of the facility. Such greenbelt shall be outside of any perimeter fencing associated with the facility. Landscaping within the greenbelt shall consist of (70) percent evergreen trees and (30) percent deciduous trees of a minimum of six (6) feet in height at the time of planting. All plantings shall be native species. All trees shall be planted a minimum of ten (10) feet apart measured on center and have a minimum projected height of twenty (20) feet. Existing vegetation within the greenbelt may be used as a substitute for the required plantings, upon approval of the Planning Commission. A landscape berm, a minimum of three (3) feet high to assist in screening may be required. The requirement of providing a berm will be recommended and approved by the Planning Commission. The landscape greenbelt shall be maintained and irrigated in accordance with Chapter 4.6 (Landscaping).
6. Maintenance of Setback Areas and Landscape Greenbelt. The Solar Farm owner is responsible for maintaining (mowing, etc.) the required setback areas and landscape greenbelt. Adequate access and space shall be provided to facilitate the maintenance of these areas. All plant material shall be maintained in a healthy condition to provide the intended screening and shall be replaced upon death or disease.
7. Maximum Lot Coverage: Maximum lot coverage restrictions shall not apply to solar devices; the size of the facility shall include all area within the perimeter fencing required by Subsection 8 below.
8. Safety/Access: The site must be secured by a fence along all exterior sides of the facility that is a minimum of six (6) feet in height with a gate and locking mechanism that will always allow for emergency access. The fencing shall consist of durable materials which shall be approved by the Planning Commission. The fencing must be located between the required landscape greenbelt and all photovoltaic solar devices and support structures associated with the facility.
9. Vehicular Access Drives and Parking Areas. Vehicular access drives and parking areas may be gravel surfaced. All parking and vehicular traffic surfaces shall be maintained in sound condition and free of weeds, dust, trash, and debris. All parking areas shall meet the minimum requirements of the applicable state and federal ADA accessibility codes.
10. Noise: No large solar energy systems shall exceed forty-five (45) dBA as measured at the property line.

11. Glare: Large solar energy system facilities shall be placed such that concentrated solar radiation or solar glare shall not be directed onto nearby properties and public roads. Anti-reflective coatings are required.
12. Electrical Interconnections: Use of above ground transmission lines are prohibited within the site except as may otherwise be required by a public utility.
13. No storage buildings or equipment compounds shall be allowed on site.
14. A Professional Engineer registered in the State of Michigan shall certify that the construction and installation of a large solar energy system meets or exceeds the manufacturer's safety, construction, and installation standards. Such certification shall be provided to the Zoning Administrator prior to the issuance of a zoning permit.
15. All electrical components, compartments, wire conduit and interconnections with private structures shall conform with applicable national and local electrical codes. The installation of large solar energy systems shall also comply with local building permit requirements.
16. The surface area beneath any solar panel or array of panels shall be continually maintained and the previous surface condition of such land area shall remain unbuilt. Additionally, in no instance shall the peak flow rate of storm water runoff from the site (also known as overland flow) exceed the predevelopment runoff rate. Development shall comply with Bay County Drain Commissioner requirements.
17. Additional Special Use Permit Criteria: In addition to the Special Use and site plan requirements found in Chapter 7 (Special Use Permit and Chapter 8 (Site Plan Review), the applicant shall address the following topics in the application for large solar energy system applications:
 - a. Project Description and Rationale: Identify the type, size, rated power output, performance, safety, and noise characteristics of the system including the transmission line/grid connection for the project. Identify the project construction time frame, project life, developmental phases (and potential future expansions) and expected markets for the generated energy. Describe the proposed property maintenance program.
 - b. Visual Impacts: Graphically demonstrate the visual impact of the project using photos and renditions of the project with consideration given to setbacks and proposed landscaping.
 - c. Environmental Analysis: Identify impacts on County drains

and/or established natural and private drainage features in the area existing environmental features, such as topography, hydrology, geology, and cultural resources.

- d. Waste: Identify any solid or hazardous waste generated by the project.
- e. Lighting: Provide plans showing all lighting within the facility. No light may adversely affect adjacent parcels. Site lighting shall not exceed 0.2 footcandles at the front property line and no light shall reach side or rear property lines.
- f. Transportation Plan: Provide a proposed access plan during construction and operational phases. Show proposed project service road ingress and egress locations onto adjacent roadways and the layout of the facility service road system. Due to infrequent access following construction, it is not required to pave or curb solar panel access drive(s).
- g. Prime Farmland: Identify potential loss of prime farmland as defined by the soil survey for Merritt Township or United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS).
- h. Public Safety: Identify emergency and normal shutdown procedures annually with the Merritt Township Fire Department and appropriate emergency management officials. Identify potential hazards to adjacent properties, public roadways, and to the general public that may be created.
- i. Sound Limitations: Identify noise levels at the property lines of the project when completed and operational.
- j. Telecommunications Interference: There will be no telecommunications interference allowed.
- k. Reporting: Provide semi-annual product output report to Merritt Township, or upon Township request. A board approved third-party engineering firm will review and approve report. Solar applicant responsible for third party expenses. Solar energy system will generate at least 50% of original rated output at time of permit application, if drops below 50% during any period of twelve (12) consecutive months will be presumed to be at the end of its useful life and will have to be abandoned upon written notice by the Township.
- l. Abandonment and Decommissioning: Following the operational life of the project, or at the time the project becomes obsolete or an Abandoned Solar Energy System, as determined by the Zoning Administrator or any other expert or specialist to be

designated by the Township to make such a determination, the applicant shall perform decommissioning and removal of the Large Solar Energy System and all its components. The Applicant shall prepare a Decommissioning Plan and submit it to the Planning Commission for review and approval prior to issuance of a Special Use Permit. Under this plan, all structures and facilities shall be removed, including any structures below-grade, and removed offsite for disposal. No concrete, piping and other materials may be left in place. Any Solar Array or combination of Photovoltaic Devices that become an Abandoned Solar Energy System shall be removed under the Decommissioning Plan. The ground must be restored to its original condition within 180 days of becoming an Abandoned Solar Energy System, or decommissioning, whichever occurs first. If solar array is abandoned by applicant, landowner is responsible for cleanup within a 180-day period. If decommissioning is not completed within a 180-day period, the Township Board shall have the authority to complete any decommissioning and restoration activities necessary to restore the property to the condition in existence prior to the installation of the Large Solar Energy System or any components thereof. Any costs incurred by the Township in pursuing such activities shall be at the expense of the Applicant and or landowner, including the Applicant's continuing restoration security as provided by this Section.

- (1) Prior to issuance of a Special Use Permit, the applicant must provide the Planning Commission a certified cost estimate for decommissioning. The decommissioning cost shall be certified by an engineer that is licensed to practice in the State of Michigan. A performance guarantee must be in the form of certified check (no bonds or performance guarantees are acceptable). The amount of the certified check will be equal to one and a quarter (1.25) times the decommissioning cost or \$50,000.00, whichever is greater. Estimates for decommissioning the site, which does not incorporate salvage value into the estimate, shall be determined by a professional engineer or a general contractor licensed to practice in the State of Michigan. A new estimate must be submitted to Merritt Township each year verifying that the cash held in escrow is an adequate amount to ensure compliance with the ordinance and to ensure that it has been properly renewed. The full amount of decommissioning must remain in escrow until the facility is decommissioned and any necessary site restoration is complete and inspected and approved by the Merritt

Township Zoning Administrator.

After approval of the Special Use Permit, but prior to the final electrical inspection, the decommissioning plan shall be recorded at the Bay County Register of Deeds Office and a recorded copy provided to Merritt Township to notify the township. In the event of a change of ownership of the facility, the new owner of the facility must provide a plan to conform to previous plan and an updated signed decommissioning plan prior to change of ownership.

m. Complaint Resolution

- (1) 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 Use permit application.
- (2) The Planning Commission shall be 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 six months by the applicant to the Planning Commission.

n. Continuing Security and Escrow: If any Large Solar Energy System is approved for construction under this Section, the applicant shall be required to post continuing security and a continuing escrow deposit prior to commencement of construction, which shall remain in effect until the Large Solar Energy System has been finally removed, as provided below:

- (1) Continuing Restoration Security: If a Special Use Permit is approved pursuant to this section, the Township Board shall require security in the form of a certified check, which will be furnished by the applicant to the Township to ensure full compliance with this section and all conditions of approval. When determining the amount of the required security, the Township may also require an annual escalator or increase based on the Consumer Price Index (or the equivalent or its successor). Such financial guarantee shall be deposited or filed with the Township Clerk after a Special Use Permit has been approved but before construction commences on the Large

Solar Energy System. At a minimum, the financial security shall be equal to the certified cost estimate for decommissioning, as described above, to be reasonably sufficient to restore the property to its previous condition prior to construction and operation of the Large Solar Energy System. Such financial security shall be kept in full force and effect during the entire time that the Large Solar Energy System exists or is in place, and such financial security shall be irrevocable and non-cancelable. In addition, the party operating a Large Solar Energy System approved by the Township shall inform the Township in the event the system, or a material portion of the system is sold to a third party, and any such sale shall require the purchasing party to provide the Township with the security described by this section, along with relevant contact information.

- (2) Continuing Obligations: Failure to keep any required financial security and escrow deposit in full force and effect at all times while a Large Solar Energy System exists or is in place shall constitute a material and significant violation of the Special Use Permit and this Ordinance, and will subject the Large Solar Energy System applicant, owner and operator to all remedies available to the Township, including revocation of the Special Use Permit. A review by the Clerk and then Township Attorney of security and escrow requirements shall occur no less than annually to determine compliance with this section.

- o. Transfer of Ownership/Operation: Prior to a change in the ownership or operation of a Large Solar Energy System, including, but not limited to, by the sale or lease of that System or the underlying property, the current owner or operator shall provide written notice to the Township at least sixty (60) days prior to that change becoming effective. This notice shall inform the Township of the intended transfer of control of the Large Solar Energy System and include a copy of the instrument or agreement effecting that transfer. Such an instrument or agreement shall include an express statement that the new owner or operator of the Large Solar Energy System shall not be permitted to operate that System until compliance with the terms of this Ordinance, including requirements for continuing security and escrow funds, has been established.

- p. Township Review: Because of the ever-changing technical capabilities of solar devices and of new technology in general, the Township Planning Commission shall have the authority to review and consider alternatives in both the dimensional and physical requirements in this

Section as a part of the Special Use Permit approval process.

- q. All site improvements (landscaping, fencing, buildings, etc.) must be maintained in good condition until the facility is dismantled and removed from site.
- r. Solar components must have a UL listing, or a listing from an alternative testing agency accepted by the jurisdiction having authority over the project.
- s. All construction parking must be located outside of the rights-of-way of the public streets.
- t. The applicant must provide written authorization from the local utility company acknowledging and approving connection to the local utility company's grid and submit a copy to Merritt Township.

Add the following text as Section 7.27:

Section 7.27 – Solar Energy Systems, Small

The purpose of these regulations is to regulate the construction, location, and operation of Small Solar Energy Systems) that are accessory uses to a site's primary use and subject to reasonable conditions that will protect the public health, safety, and welfare.

- 1. In General.
 - a. Small solar energy systems may be building integrated, ground-mounted, roof-mounted, or wall-mounted systems, as defined in this Ordinance.
 - b. The review and approval process for small solar energy systems shall be as follows:
 - (1) Building-integrated small solar energy systems – No zoning approval is required.
 - (2) Roof-mounted and/or wall-mounted small solar energy systems – Administrative review and approval by the Zoning Administrator shall be required, subject to the requirements of this Section.
 - (3) Ground-mounted small solar energy systems – Review and approval by the Planning Commission shall be required as a use permitted subject to special conditions in accordance with Chapter 7 (Special Use Permits). A site plan shall be submitted concurrently with the special use application which includes the required information

per Chapter 8 (Site Plan Review) ,and any other supporting statements, evidence, data, information and exhibits necessary to demonstrate compliance with the requirements of this Section.

- (4) All solar energy systems installed per manufacture recommendation.

2. Roof-mounted systems.

- a. Roof-mounted systems are permitted to face any rear or side yard.
- b. Roof-mounted systems shall be designed to be in harmony with the architectural style of the building to which it is attached, and not obviously appearing as a separate mechanical structure that appends or appears to interrupt the uniform surface of a roof.
- c. Roof-mounted systems on an angled roof shall appear to be flush mounted.
- d. The highest point of the roof-mounted system shall not exceed the highest point of the roof to which it is attached. For installations on a flat roof, the highest point of the system shall be permitted to extend up to 6-feet above the roof to which it is attached; however, it shall be so located or architecturally concealed by a parapet wall or screen so that the system is not visible from abutting rights-of-way or private road easements.
- e. For non-residential uses, no roof-mounted system shall be installed in a manner that would cause the shedding of ice or snow from the roof onto a stoop, porch, deck, stairwell, or pedestrian travel area.

3. Wall-mounted systems.

- a. Wall-mounted systems are permitted to face any rear or side yard.
- b. Wall-mounted systems shall be designed to be in harmony with the architectural style of the building to which it is attached and not obviously appearing as a separate mechanical structure that appends or appears to interrupt the design character of the wall to which it is attached.

4. Ground-mounted systems.

- a. A minimum of one (1) acre of land is required.
- b. For residentially zoned parcels, ground mounted systems shall not exceed 1,000 square feet in area utilized for solar panels and electrical equipment. For all other zoning districts, ground mounted systems shall not exceed 10,000 square feet in area utilized for solar panels and electrical equipment.

- c. Ground-mounted systems cannot be constructed in any required setback area. Greenbelts, landscape screening and/or fencing shall be required to screen the ground-mounted system from adjoining properties and roadways.
 - d. Ground-mounted systems shall be accessory to a principal use and located on the same zoning lot as the principal use. Locating ground-mounted systems within a general common element or other similarly shared space held in common ownership is expressly prohibited.
 - e. All exterior electrical lines shall be buried below the surface of the ground.
 - f. Photovoltaic panels, devices and support structures shall be restricted to a maximum height of six (6) feet when orientated at a maximum tilt as measured from the existing grade.
 - g. The surface area beneath any solar panel or array of panels shall be continually maintained and the pervious surface condition of such land shall remain unbuilt.
5. Public Safety.
- a. Public Safety: Identify emergency and normal shutdown procedures annually with the Merritt Township Fire Department and appropriate emergency management officials. Identify potential hazards to adjacent properties, public roadways, and to the general public that may be created.
6. Abandonment and Decommissioning.
- a. Following the operational life of the project, or at the time the project becomes obsolete, the applicant shall perform decommissioning and removal of the small solar energy system and all its components.

Add the following text to Chapter 2:

Definitions:

Abandoned Solar Energy System: Any solar energy system that remains nonfunctional or inoperative to the extent that it is not used to generate energy for a continuous period of 180 days.

Building Integrated Solar Energy System: A solar energy system that consists of integrating photovoltaic devices into the building structure, such as the roof or the wall, and which does not alter the relief of the roof or wall.

Ground-Mounted Solar Energy System: A solar energy system that is directly installed in the ground and is not attached or affixed to an existing structure.

Photovoltaic Device: A system of components that generates electrical energy from incidental sunlight by means of photovoltaic effect, whether or not the device is able to store the electric energy produced for later use. For purposes of this ordinance, a photovoltaic device shall also be known as a solar device.

Roof-Mounted Solar System: A solar energy system in which solar panels are mounted to a roof of a building, either as a flush-mounted system or as modules fixed to frames which can be tilted.

Solar Array: Any number of devices connected together to provide a single output of electrical energy or other energy.

Solar Energy System, Large: A utility-scale solar energy system intended to generate electric energy or other energy by converting sunlight, whether by solar devices or other conversion technology, for the sale, delivery, or consumption of the generated energy by more than one end-user, and typically the power output of that system is equal to or greater than 1 megawatt. Large solar energy systems may be a principal use or an accessory use.

Solar Energy System, Small: A solar energy system where the sole use is to generate electric energy or other energy by converting sunlight, whether photovoltaic devices or other conversion technology, primarily for consumption by a single end user at the same property upon which the solar energy system is located. The power output of the system shall not exceed 1 megawatt. Small solar energy systems shall only be an accessory use to a principal use.

Wall-Mounted Solar Energy System: A solar energy system that is mounted to a wall of a building, either as a flush-mounted system or as modules fixed to frames which can be tilted.

Solar Glare: The effect produced by sunlight reflecting from a solar panel with an intensity sufficient to cause a loss in visibility.