

Soo Township Solar Ordinance
Ordinance 2024-02 (12/11/2024)

Definitions

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

Building Integrated Solar Energy System. A solar energy system that is an integral part of a primary or accessory building or structure rather than a separate mechanical device; replacing or substituting for an architectural or structural component of the building or structure. Building integrated systems include, but are not limited to, photovoltaic or hot water solar energy systems that are contained within roofing materials, windows, walls, skylights and awnings.

Ground Mounted Solar Energy System. A solar energy system mounted on support posts, like a rack or pole, that are attached to or rest on the ground.

Internal Solar Energy System. A solar energy system that has no interconnection with the electrical supply grid, which also included building wiring, and no net metering capabilities. Internal solar energy systems are typically used for operating small appliances and battery charging. Internal solar energy systems do not require a Special Land Use Permit. Should permitting by either the State of Michigan or the local power company be requested due to net metering or interconnection with the power grid, the solar energy system shall be considered a Principal Use Energy System and will be required to meet those requirements and obtain a Special Land Use Permit.

Maximum Tilt. The maximum angle of a solar array (i.e. most vertical position) for capturing solar radiation as compared to the horizon line.

Minimum Tilt. The minimal angle of a solar array (i.e. the most horizontal position) for capturing solar radiation as compared to the horizon line.

Photovoltaic System. A semiconductor material that generates electricity from sunlight.

Principal Use Solar Energy System. A commercial, ground mounted solar energy system that converts sunlight into electricity for the primary purpose of off-site use through the electrical grid or export to the wholesale market. Principal Use Solar Energy Systems require a Special Land Use Permit.

Principal Use Large Solar Energy System. A Principal Use solar energy system generating more than 150 kw for the primary purpose of off-site use through the electrical grid or export to the wholesale market. Principal Use (Large) Solar Energy Systems require a Special Land Use Permit.

Principal Use Small Solar Energy System. A Principal Use solar energy system generating up and including 150 kw for the primary purpose of off-site use through the electrical grid or export to the wholesale market. Principal Use (Small) Solar Energy Systems require a Special Land Use Permit.

Repowering. Reconfiguring, renovation or replacing a Solar Energy System to maintain or increase the power rating of the system within the existing footprint.

Roof Mounted Solar Energy System. A solar energy system mounted on racking that is attached to or ballasted on the roof of a building or structure.

Solar Array. A photovoltaic panel, solar thermal collector or collection of panels or collectors in a solar energy system that collects solar radiation

Solar Energy System. A photovoltaic system or solar thermal system for generating and /or storing electricity or heat, including all above and below ground equipment or components required for the system to operate properly and to be secured to a roof surface or the ground. This includes any necessary operations and maintenance buildings, but does not include any temporary construction offices, substations or other transmission facilities between the solar energy system and the point of interconnection to the electric grid.

Unreasonable Safety Hazard. Any condition which could reasonably be expected to create, cause or compound the substantial likelihood that death, illness or personal injury may occur to any member of the public, including but not limited to, trespassers or emergency services personnel. Adherence by the property owner or occupants to industry standards for safeguarding against such risks will be taken into consideration in determining whether a condition poses and unreasonable safety hazard.

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.

Special Land Use Permit Requirement

A. Purpose and intent

1. To ensure that solar energy production is harmonious with surrounding land uses and SooTownship residents in general.
2. To lessen the potential of nuisance issues arising in the future.

B. Planning Commission Review.

Because of the ever-changing technical capabilities of photovoltaic solar panels, systems and new technology in general, the Planning Commission shall have the authority to review and consider alternatives in both dimensional requirements as well as physical development requirements found in this section.

Principal Use Small Solar Energy System

A. In General.

1. The purpose of this section is to regulate the construction, location and operation of Principal use 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.
2. Principal Use Small Solar Energy Systems may be building integrated, ground mounted, roof mounted or wall mounted systems, as defined in this ordinance.

B. Building Mounted Systems

1. Building mounted systems shall not reflect glare onto neighboring properties or public roads.
2. Building mounted systems shall not exceed either the building's footprint or height, as they are an integral part of the structure.

C. Roof Mounted Systems

1. 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.

2. For non-residential uses, roof mounted systems shall not 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. Roof mounted systems shall not reflect glare onto neighboring properties or public roads.

D. Ground Mounted Systems

1. A minimum of 1 acre of land is required.
2. For residential zoned properties, ground mounted systems shall not exceed 1,000 square feet in area utilized for solar panels and electrical equipment. For all other zoning, ground mounted systems shall not exceed 10,000 square feet in area utilized for solar panels and electrical equipment.
3. 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.
4. Ground mounted systems that are accessory to a principal use location shall be located on the same property as the principal use. Locating ground mounted systems in a separate property as to the principal use location is expressly prohibited.
5. Ground mounted systems shall be placed such that concentrated solar radiation of solar glare shall not be directed onto nearby properties or public roads. Anti-reflective coatings are required.
6. All exterior line shall be buried beneath the surface of the ground.
7. Photovoltaic panels, devices and support structures shall be restricted to a maximum height of 6 feet when orientated at a maximum tilt as measured from the existing grade.
8. The surface area beneath any solar panel or solar array shall be continually maintained and previous surface condition of such land shall remain unaltered.
9. Owners of ground mounted systems shall submit, with the Special Land Use Permit application, an approved Soil Erosion and Sedimentation Control Plan, or equivalent, from the Chippewa County Conservation District or a similar agency. The owner shall also detail how they shall control drainage from runoff from the solar array and if it shall impact neighboring properties.
10. Ground mounted systems shall have a removal plan stated in the approved Special Land Use Permit application for abandoned systems.

Principal Use Large Solar Energy Systems

A. In General.

1. The purpose of these regulations is to allow and encourage 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.
2. The principal use large solar energy systems shall be subject to reasonable conditions that will protect the public health, safety and welfare of Soo Township residents.
3. These regulations shall establish minimum requirements for large solar farm facilities while promoting a renewable energy source in a safe, effective, efficient and least obtrusive manner. The owner/operator shall comply with all Federal and State regulations relating to these operation.

B. Conditions

1. Minimum Lot Size. A minimum of 80 acres of land is required.
2. Maximum Lot Coverage. A maximum of 60% of the lot shall be covered by the solar array and associated electrical components. This percentage of coverage shall be considered to be within the required perimeter fencing as detailed in Section 8.

3. Height Restrictions. All photovoltaic panel solar devices and support structures located on a large solar energy system facility shall be limited to a maximum height of 15 feet when oriented at a maximum tilt as measured from the existing grade.
4. Road Frontage Setback. All photovoltaic solar devices and support structures associated with such facilities, including perimeter fencing, shall be setback a minimum of 100 feet from any road right of way line. This road frontage setback area may be occupied by other uses as allowed by the approved Special Land Use Permit.
5. Property Line Setbacks. All photovoltaic solar devices and support structures associated with such facilities, including perimeter fencing, shall be setback a minimum of 50 feet from all back and side property lines.
6. Landscape Greenbelt. Landscaping shall consist of a minimum of 20 feet wide vegetated greenbelt around the entire perimeter of the facility. Such greenbelt shall be outside of any perimeter fencing associated with the facility. A landscaping plan shall be submitted and approved through the Special Land Use Permit process.
7. Maintenance of Setback Areas and Landscape Greenbelt. The owner is responsible for maintaining (mowing, weed removal, etc.) the required setback 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.
8. Safety/Access. The site must be secured by a fence along all exterior sides of the facility that is a minimum of 6 feet in height with a gate and locking mechanism that will allow for emergency access at all times. The fencing shall consist of durable materials which shall be approved by the Planning Commission. The fencing shall be located between the required landscape greenbelt and all photovoltaic solar devices and support structures associated with the facility.
9. Noise. No large solar energy system shall exceed 50dBA as measured at any property line.
10. 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.
11. All site improvements must be maintained in good condition until the facility is decommissioned.
12. Use of above ground transmission lines are prohibited within the site except as may otherwise be required by a public utility.

C. Special Land Use Permit Required Information

In addition to the Special Land Use Permit requirements listed in the Soo Township Ordinance, the following requirements shall be addressed during the permitting process for Principal Use Large Solar Energy Systems:

1. Project Description. 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 timeframe, project life, developmental phases (potential future expansions) and expected markets for the generated energy.
2. Describe the proposed property maintenance program.
3. 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.
4. Provide a drainage plan, with flow diagram, detailing how any drainage from the solar development will impact the neighboring properties. Applicant shall also include an approved Soil Erosion & Sedimentation Control plan, or its equivalent, from the Chippewa County Conservation District or EGLE, whichever agency has jurisdiction over the project.

5. Identify any solid or hazardous waste generated by the project.
6. 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.
7. Public Safety. Identify potential hazards to adjacent properties, public roadways and to the general public that may be created.
8. Sound Limitations. Identify noise levels at the property lines of the project when completed and operational.
9. Telecommunication Interference. Identify any electromagnetic fields and communication interference that may be generated by the project.
10. Application Escrow Deposit. An escrow deposit shall be paid to Soo Township by the applicant when applying for the Special Land Use Permit. The monetary amount deposited by the applicant shall be the amount estimated by the Township to cover all reasonable costs and expenses associated with the Special Land Use Permit process, which shall include, but not limited to, reasonable fees from the Township Attorney, as well as costs incurred for any reports or studies that are reasonably related to the application review process. The Application Escrow Deposit shall be in addition to any filing or application fees established by Soo Township ordinances. At any time during the permit review process, Soo Township may require that the applicant place additional funds in escrow if the original amount is deemed insufficient. If the Application Escrow Account is not replenished as deemed necessary by the Township, the permit review process shall cease.
11. 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 an expert or specialist designated by Soo Township to make such a determination, the applicant shall perform decommissioning and removal of the Large Solar Energy System and all of its components. The applicant shall prepare a Decommissioning Plan and submit it to the Planning Commission for review and approval prior to issuance of the Special Land Use Permit.

The site must be restored to its original condition within 180 days of becoming an Abandoned Solar Energy System, or decommissioning, whichever comes first. If restoration does not occur within 180 days of a condition of abandonment or decommissioning, the Township Board shall have the authority to complete the decommissioning and restoration activities necessary to restore the property the condition in existence prior to the installation of the Large Solar Energy System. Any such cost incurred by the Township shall be at the expense of the applicant, including the Applicant's continuing restoration security as provided by the following section.

- A. Prior to issuance of a Special Land Use Permit, the applicant must provide Soo Township a cost estimate for decommissioning and restoration to original condition. In order to determine the cost estimate for decommissioning, the responsible party shall provide at least two (2) cost estimates from qualified contractors for full removal of the equipment, foundations and structures associated with the facility. These amounts will assist the Township when setting the decommissioning performance guarantee amount.
- B. A Performance Guarantee in the form of a bond, letter of credit, cash or other form acceptable to the Township, shall be presented to Soo Township in the amount of 1.25 times the certified decommissioning and restoration estimate to be held in escrow. This performance guarantee shall be valid throughout the lifetime of the facility.
- C. A new certified estimate of decommissioning and restoration shall be submitted to the Township every two years that the Large Solar Energy System is in operation to verify

that the amount held in escrow is sufficient to comply with this ordinance. The escrow amount shall reflect the updated estimated costs. Additional funds shall be provided as necessary.

- D. The full amount of decommissioning and restoration shall remain in escrow until the facility is fully decommissioned and all restoration is completed, inspected and approved by the Soo Township Board.
- E. After approval of the Special Land Use Permit, but before construction, the decommissioning plan shall be recorded at the Chippewa County Register of Deeds Office and a recorded copy provided to the Soo Township Clerk.
- F. In the event of a change of ownership of the Large Solar Energy System, the new owner of the facility must provide an updated and signed decommissioning plan with 30 days of the transfer of ownership.

D. Transfer of Ownership/Operation

Prior to a change in the ownership or operation of a Large Solar Energy System, including, but not limited to, a sale or lease of that system or property, the current owner or operator shall provide written notice to the Township at least 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 agreement affecting that transfer. Said agreement shall include language regarding the continuing decommissioning escrow requirement.

E. Annual Operational Report to Soo Township

The owner/operator of the Large Solar Energy System shall submit an annual operational report, due February 1st, to Soo Township. This report shall detail any changes or deviations, if any, to the operations and equipment within the past year. It shall also include maintenance activities pertaining to the requirements of the approved Special Land Use Permit.