

ST CHARLES TOWNSHIP
SAGINAW COUNTY, MICHIGAN
ORDINANCE NO. 2022-01

Solar Energy Systems Ordinance Amendment

Section 201

Section 1741

Section 1742

An ordinance amending the St Charles Township Zoning Ordinance No. 2022-01, as amended The Township of St Charles ORDAINS:

That Ordinance No. 2022-01, being St Charles Township Zoning Ordinance is hereby amended as follows:

SECTION 1

INSERT new definitions into Section 201 (Definitions), as follows:

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 the 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.

SECTION 2

INSERT new Section 1741 (Solar Energy Systems, Large) to Article XVII (General Provisions), as follows:

Section 1741. 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 four (4) miles of an electrical substation in existence at the time of adoption of this Section, as shown on the Existing Utility Substation Radius exhibit.
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 fifteen (15) 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 of 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 evergreen trees of a minimum of six (6) feet in height at the time of planting. 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 or Planning Administrator.

6. Maintenance of Setback Areas and Landscape Greenbelt: The solar farm owner is responsible for the 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 photovoltaic solar panels. Any other regulated structures on the parcel are subject to the maximum lot coverage restrictions of the underlying zoning district.
8. Safety/Access: The site must be secured by a fence along all exterior side of the facility that is a minimum of six (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 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 requirement of the applicable state and federal ADA accessibility codes.
10. Noise: No large solar energy systems shall exceed fifty (50) 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. Energy storage buildings and equipment: Energy storage buildings and equipment compounds shall be allowed on site. Such buildings and equipment shall be centrally located, not exceed a height of fifteen (15) feet, or occupy an area greater than five-hundred (500) square feet.
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 certifications shall be provided to the township Building Official prior to the issuance of a zoning compliance permit.

15. All electrical components, compartments, storage facilities, 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.
17. Additional Special Use Criteria: The following topics shall be addressed in a Special Use application for such large photovoltaic solar farm facilities in addition to the Special Use Review Criteria.
 - 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. Job Creation: Estimated construction jobs and estimated permanent jobs associated with the development.
 - c. 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.
 - d. 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.
 - e. Waste: Identify any solid or hazardous waste generated by the project.
 - f. 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.
 - g. 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 pace or curb solar panel access drive.
 - h. Prime Farmland: Identify potential loss of prime farmland as defined by the soil survey in Saginaw County or United States Department of Agriculture Natural Resources Conservation Service.
 - i. Public Safety: Identify emergency and normal shutdown procedures. Identify potential hazards to adjacent properties, public roadways and to the general public that may be created.
 - j. Sound Limitations: Identify noise levels at the property lines of the project when completed and operational.
 - k. Telecommunications Interference: Identify and electromagnetic fields and communications and interference that may be generated by the project.
 - 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 Township Building Official 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 the Special Condition Use Permit. Under the 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 decommissioning is not completed within a 180-day period, the Township Board shall have the authority to complete and 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, including the Applicant's continuing restoration security as provided by this section.

- (1) Prior to issuance of a Special Condition Use permit by St Charles Township, the applicant must provide the St Charles Township Planning Commission a certified cost estimate for decommissioning. The decommissioning cost shall be certified by an engineer and licensed to practice in the State of Michigan. The 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 times the decommissioning cost of \$50,000.00 whichever is greater. Estimates for decommissioning the site and salvage value 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 the St Charles Township Building Department 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 St Charles Township Building Official.

After approval of the Special Condition Use Permit, but prior to the final electrical inspection, the decommissioning plan shall be recorded at the Saginaw County Register of Deeds Office and a recorded copy provided to the St Charles Township Building Department. In the event of a change of ownership of the facility, the new owner of the facility must provide an updated signed decommissioning plan within thirty (30) days of the change of ownership.

- m. 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 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 Condition Use Permit is approved pursuant to this section, the Township Board shall require security in the form of a cash deposit, or surety bond acceptable to the Township, 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 each 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 Condition Use Permit has been approved but before construction commences on 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 contract 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 Condition 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 Condition Use Permit. A review of security and escrow requirements shall occur no less than annually to determine compliance with this section.
- n. Transfer of Ownership/Operation: Prior to a change in the ownership or operation 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.
 - o. 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 the Section as a part of the Special Condition Use Permit approval process.
 - p. All Site improvements (landscaping, fencing, buildings, etc.) must be maintained in good condition until the facility is dismantled and removed from site.
 - q. Solar components must have a UL listing, or a listing from an alternative testing agency accepted by the jurisdiction having authority over the project.
 - r. All construction parking must be located outside of the rights-of-way of the public streets.
 - s. 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 St Charles Township.

