

**ORDINANCE NO. 771**  
**SAGINAW CHARTER TOWNSHIP**  
**SAGINAW COUNTY, MICHIGAN**

AN ORDINANCE TO AMEND THE SAGINAW TOWNSHIP ZONING ORDINANCE,  
ZONING MAP, (ORDINANCE #423 BEING SECTION 602 OF THE SAGINAW CHARTER TOWNSHIP  
CODE OF ORDINANCES), SAGINAW COUNTY, MICHIGAN

The Charter Township of Saginaw, Saginaw County, Michigan

ORDAINS:

The Saginaw Township Zoning Ordinance, Saginaw Township, Saginaw County, Michigan be and hereby is amended as follows:

**Proposed Amendment**

A proposed amendment to add Section 2222 which will add provisions for Solar Energy Systems to be permitted by Special Use Permit or under special conditions subject to the standards of the Special Use Permit requirements within the FC-1, A-2, R-1, R-1A, R-2, R-3, R-4, B-1, B-2, B-3, B-4, CB-1, and M-1 zoning districts. The proposed use is intended to allow solar energy systems (such as rooftop solar panels, ground-mounted panel structures, and building integrated systems) with various levels of intensity. It is the intent of this new section to regulate the safe, effective, and efficient use of solar energy systems (SES) in order to reduce or replace the consumption of electricity supplied by utility companies.

**Amend Chapter 7, FC-1, Floodplain and Conservation Districts, Section 703. Uses permitted under special conditions to add:**

8. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 9, A-2, Agricultural Districts, Section 903. Uses permitted under special conditions to add:**

8. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 9, A-2, Agricultural Districts, Section 904. Uses permitted by special use permit to add:**

21. Level 2 and Level 3 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 10, R-1, Residential Districts (Low Density), Section 1003. Uses permitted under special conditions to add:**

9. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 11, R-1A, Residential Districts (Suburban Low Density), Section 1103. Uses permitted under special conditions to add:**

10. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 12, R-2, Residential Districts (Medium Density), Section 1203. Uses permitted under special conditions to add:**

9. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 13, R-3, Residential Districts (Intensive Low Rise), Section 1303. Uses permitted under special conditions to add:**

9. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 14, R-4, Residential Districts (Intensive High Rise), Section 1403. Uses permitted under special conditions to add:**

2. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 15, B-1, Commercial (Office-Business), Section 1503. Uses permitted under special conditions to add:**

8. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 15, B-1, Commercial (Office-Business), Section 1504. Uses permitted by special use permit to add:**

10. Level 2 solar energy systems, subject to special use permit and the standards contained in section 2222.

**Amend Chapter 16, B-2, Commercial (Neighborhood), Section 1603. Uses permitted under special conditions to add:**

9. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 16, B-2, Commercial (Neighborhood), Section 1604. Uses permitted by special use permit to add:**

7. Level 2 solar energy systems, subject to special use permit and the standards contained in section 2222.

**Amend Chapter 17, B-3, Commercial (Community-wide), Section 1703. Uses permitted under special conditions to add:**

16. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 17, B-3, Commercial (Community-wide), Section 1704. Uses permitted by special use permit to add:**

12. Level 2 solar energy systems, subject to special use permit and the standards contained in section 2222.

**Amend Chapter 19, B-4, Commercial (General Intensive), Section 1903. Uses permitted under special conditions to add:**

18. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 19, B-4, Commercial (General Intensive), Section 1904. Uses permitted by special use permit to add:**

8. Level 2 solar energy systems, subject to special use permit and the standards contained in section 2222.

**Amend Chapter 20, CB-1, Campus Business District, Section 2003. Uses permitted under special conditions to add:**

3. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

4. Level 2 and Level 3 solar energy systems, subject to the standards contained in section 2222 and issuance of a special use permit.

**Amend Chapter 21, M-1, Science and Industry, Section 2103. Uses permitted under special conditions to add:**

6. Roof mounted, wall mounted, or building integrated photovoltaic (BIPV) solar energy systems, and Level 1 solar energy systems, subject to the standards contained in section 2222.

**Amend Chapter 21, M-1, Science and Industry, Section 2104. Uses permitted by special use permit to add:**

3. Level 2 and Level 3 solar energy systems, subject to the standards contained in section 2222.

**Addition of Section 2222 to Chapter 22. - Special Uses – Special Use Permit Requirements.**

Section 2222 “Solar Energy Systems,” is added to Chapter 22 - Special Uses – Special Use Permit Requirements of the Code of Ordinances of Saginaw Charter Township to read as follows:

**Sec. 2222. – Solar Energy Systems (SES)**

1. **Intent:** It is the intent of this section to regulate the safe, effective, and efficient use of solar energy systems (SES) in order to reduce or replace the consumption of electricity supplied by utility companies.
2. **Definitions:**
  - A. **Building Integrated Photovoltaic (BIPV) Systems:** A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof or the façade, and which does not alter the relief of the roof.
  - B. **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.
  - C. **Photovoltaic (PV) Systems:** A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells, which generate electricity whenever sunlight strikes them.
  - D. **Rooftop Solar System:** A solar energy system in which solar panels are mounted on top of a roof either as a flush-mounted system or as modules fixed to frames which can be tilted.
  - E. **Solar Collector:** A solar photovoltaic cell, panel, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.

- F. **Solar Energy System:** Solar collectors, controls, energy storage devices, heat pumps, heat exchangers, and other materials, hardware or equipment necessary to the process by which solar radiation is collected, converted into another form of energy, stored, protected from unnecessary dissipation, and distributed. Solar systems include solar thermal, photovoltaic, and concentrated solar.
- G. **Solar Panel:** A device for the direct conversion of solar energy into electricity.
- H. **Solar-Thermal Systems:** Solar thermal systems directly heat water or other liquid using sunlight. The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and heating pool water.
- I. **Wall-mounted Solar Energy System:** A solar energy system that is installed flush to the surface of the wall of a permanent building.

3. **Applicability:**

- A. The requirements of this Section shall apply to all SES installed after the effective date of this ordinance. These uses may be authorized by the issuance of a special use permit or as otherwise cited when all of the procedures and applicable requirements stated and the additional requirements of this section can be complied with.
- B. SES which were installed prior to the effective date of this ordinance shall not be required to meet the requirements of this Section except for modifications to an existing SES that increase the SES area by more than ten percent (10%) of the original footprint or that change the solar panel type. Only the modification or alteration is subject to this ordinance.

4. **Types of Solar Energy Systems:**

- A. **Level 1 Solar Energy Systems:** Level 1 Solar Energy Systems generally provide energy primarily for on-site uses. Level 1 systems may be comprised of the following:
  - i. Rooftop solar energy systems on any structure.
  - ii. Rooftop solar thermal systems on any structure.
  - iii. Ground-mounted solar energy systems may occupy an area up to fifty percent (50%) of the footprint of the principal structure on the parcel, but shall in no case exceed one thousand (1,000) square feet in area on any residentially-zoned parcel, or ten thousand (10,000) square feet on parcels located in all other zoning districts.
  - iv. Building Integrated Photovoltaic (BIPV) Systems.

- B. **Level 2 Solar Energy Systems:** Level 2 Solar Energy Systems are those systems that may provide energy for on-site and/or off-site uses that are of a size exceeding the permitted ground area coverages of a Level 1 SES; subject to the area limitations stipulated for the zoning districts in which they are located, as follows:
- i. Agricultural Zoning Districts: Solar Energy Systems not to exceed twenty thousand (20,000) square feet in area.
  - ii. Commercial Zoning District: Solar Energy Systems not to exceed two hundred thousand (200,000) square feet in area.
  - iii. Campus Business District: Solar Energy Systems not to exceed two hundred thousand (200,000) square feet in area.
  - iv. Manufacturing Zoning District: Solar Energy Systems not to exceed two hundred thousand (200,000) square feet in area.
- C. **Level 3 Solar Energy Systems:** Level 3 Solar Energy Systems are those systems that exceed the parameters stipulated for Level 1 and Level 2 Solar Energy Systems.

5. **Permitted Zoning Districts:** SES are allowed as demonstrated in the below table:

**Table: Solar Energy Systems (SES) Permitted Zoning Districts**

Types of Solar Energy Systems		Permitted Zoning Districts					
		FC-1	A-2	R-1, R-1A, R-2, R-3, R-4	B-1, B-2, B-3, B-4	CB-1	M-1
Roof Mounted SES Wall Mounted SES BIPV SES		P	P	P	P	P	P
Ground Mounted SES	Level 1	P	P	P	P	P	P
	Level 2		S		S	S	S
	Level 3		S			S	S

P = Permitted use under special conditions subject to regulations herein.

S = Permitted by Special Land Use Permit subject to regulations herein.

## 6. General Regulations:

- A. **Zoning Administrator Review:** All SES which are a Permitted Use in a zoning district shall be subject to review and approval by the Zoning Administrator. Exceptions to Zoning Administrator review shall be a single solar panel less than ten (10) square feet in area or the repair and replacement of equipment related to an existing solar energy system which does not increase the size of the system. Applicants for Zoning Administrator review shall submit a site plan to the Zoning Administrator providing the setbacks and height of the equipment including a data sheet from the equipment manufacturer.

- B. **Setbacks:** On a residentially-zoned or residentially-utilized parcel, ground-mounted SES shall not be located in front of the established building line and/or front yard setback, whichever is greater, and shall have a minimum setback of five feet from the rear property line and eight feet from the side property line. In all other zoning districts ground mounted SES shall not be located in the required front, side or rear yard.
- C. **Height:**
- i. **Ground Mounted:** Ground mounted solar energy collectors in residential districts shall not exceed eight (8) feet in height as measured from ground level to the top of the solar collectors when oriented at maximum tilt. Ground mounted solar energy collectors in other districts shall not exceed seventeen (17) feet in height as measured from ground level to the top of the solar collectors when oriented at maximum tilt.
  - ii. **Rooftop Mounted:** Rooftop mounted SES shall not project more than five (5) feet above the highest point of the roof, but, in any event, shall not exceed the maximum building height for the zoning district in which it is located. Roof-mounted SES shall not project beyond the eaves of the roof.
- D. **Wall Mounted SES:** Solar energy collectors that are wall-mounted shall not exceed the height of the building wall to which they are attached.
- E. **Solar Thermal Systems:** Solar thermal systems shall be a permitted use by-right in all zoning districts.
- F. **Design and Construction:** The design and construction of solar energy systems shall not produce light emissions, either direct or indirect (reflective), that would emit unreasonable glare or negatively impact adjacent properties. All panels shall have tempered, non-reflective surfaces.
- G. **Lot Coverage:** The surface area of ground-mounted solar collectors shall not be included in the calculation of the maximum permitted lot coverage requirement for any parcel of land.
- H. **Accessory Use:** Level 1 SES shall be considered an accessory use, not the principal use, on agriculturally-zoned and residentially-zoned parcels. Level 2 SES shall be considered an accessory use, not the principal use, on agriculturally-zoned parcels.
- I. **Buffering:** Buffer zones around the perimeter of an SES shall be required in accordance with bufferyard requirements outlined in Section 303.4 herein as they

pertain to the zoning district in which they are located. The Planning Commission may require additional bufferyard and screening requirements as necessary.

- J. **Buried Power Lines:** On-site power lines related to SES shall be buried except where necessary to connect to existing overhead transmission lines or where prohibited by natural features.
- K. **Security:** Special Land Use Permit applicants for a level 3 SES shall submit a security plan detailing on-site security provisions which could include fencing, full-time security guards, video surveillance, etc.
- L. **Construction Waste Management Plan:** The initial construction of Level 2 or Level 3 SES can produce large quantities of cardboard, wood, scrap metal, and scrap wire. Applicants for a Level 2 or Level 3 SES shall submit a waste removal plan describing the methods of waste disposal.
- M. **Decommissioning:** At the time an application is submitted for a Level 2 or Level 3 SES, as required by Section 2222.5, a decommissioning plan shall be submitted as follows:
  - i. Defined conditions upon which decommissioning will be initiated (i.e., end of land lease, no power production for twelve (12) months, etc.)
  - ii. Removal of all non-utility owned equipment, conduit, structures, fencing, roads, and building foundations to a depth of three (3) feet below grade.
  - iii. Restoration of property to the condition prior to development of the SES.
  - iv. The timeframe for completion of decommissioning activities.
  - v. An engineer's cost estimate for all aspects of the decommissioning plan.
  - vi. Description of any agreement (e.g., lease) with the landowner regarding decommissioning.
  - vii. Provisions for updating the decommissioning plan.
  - viii. The decommissioning of any electrical equipment/components shall be executed by a licensed electrical contractor.
  - ix. A statement signed by the owner or operator that they take full responsibility for reclaiming the site in accordance with the decommissioning plan and the Special Land Use Permit upon cessation of use.
  - x. Saginaw Charter Township may mandate that the owner or operator provide a financial guarantee to cover the costs of decommissioning the site.
  - xi. The decommissioning plan shall be recorded with the Saginaw County Register of Deeds.
  - xii. The Saginaw Charter Township Electrical Inspector shall conduct a final inspection to confirm that the SES has been decommissioned consistent with the provisions of the decommissioning plan.
  - xiii. Saginaw Charter Township may require a performance bond or other financial guarantee to ensure removal of the approved solar energy system upon the



terms identified in M.i above. Such financial guarantee or bond shall be sufficient to cover removal and disposal of all built solar improvements, as well as landscape restoration of the site, adjusted for inflation over 20 years or other term as agreed upon by the Township.

**7. Other Approvals Required:**

- A. **Building/Electrical Permits:** Nothing in this ordinance modifies the building code and electrical code standards, as amended, to construct a SES.
- B. **Fire Department Approval:** Nothing in this ordinance modifies the requirements or exempts any SES from compliance with the applicable regulations of the International Fire Code as adopted by Saginaw Charter Township.
- C. **Onsite Wastewater System Avoidance:** Nothing in this ordinance modifies the regulations of the Saginaw County Health Department requirements. A SES shall not be constructed over on-site wastewater systems (e.g. septic systems) unless approved by the Saginaw County Health Department.
- D. **Stormwater Approval:** Nothing in this ordinance modifies the requirements or exempts any SES from compliance with the applicable regulations established by the Saginaw Charter Township Stormwater Management Plan or the Saginaw County Drain Commissioner's Office. The growth of vegetation beneath the arrays of solar panels is encouraged in order to limit the impacts of stormwater runoff. A landscaping and maintenance plan should be provided as part of site plan review.
- E. **Airports:** Solar energy systems may create a glare hazard for pilots. Applicants for Level 1, Level 2, and Level 3 SES over twenty thousand (20,000) square feet shall comply with Federal Aviation Administration siting requirements.

Violation of this Section is a Municipal Civil Infraction and may be enforced under Chapter 2, Article VII of this Code and MCL 600.3202.

The foregoing shall be published in the Saginaw News, a newspaper of general circulation in the Charter Township of Saginaw, on the 28<sup>th</sup> day of September, 2020.

This Ordinance shall take effect seven (7) days after the date of publication.

The adopted Ordinance, the Saginaw Charter Township Zoning Ordinance, and Zoning Map are available for public inspection at the Saginaw Charter Township Offices, 4980 Shattuck Road, Saginaw, Michigan 48603, during regular business hours. For further information, please contact the Township Clerk's Office, Saginaw Charter Township Hall, (989) 791-9830.

ROLL CALL VOTE:

AYES: Supervisor Braun, Clerk Wazny, Treasurer Gerhardt, Trustees Connolly,

Gorney, Howell and Kelly

NAYS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

**ORDINANCE DECLARED ADOPTED.**

Dated: September 28, 2020

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**TIMOTHY J. BRAUN**, Supervisor

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**SHIRLEY WAZNY**, Clerk

**CERTIFICATION**

I, the undersigned, duly acting Township Clerk of Saginaw Charter Township, Saginaw County, Michigan, do hereby certify that the above ordinance, or a summary thereof, was published in the Saginaw News, a newspaper of general circulation in the Township on October 1, 2020, and that such ordinance was entered in the Ordinance Book of the Township on October 1, 2020.

Dated: September 28, 2020

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**SHIRLEY WAZNY**, Clerk