

TOWNSHIP OF CHAPIN
COUNTY OF SAGINAW, STATE OF MICHIGAN
(Amendment to Ordinance 2022-2)
SOLAR ENERGY ORDINANCE
Ordinance #01-2023

DEFINITIONS

- 1) Solar Energy Systems: A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical or chemical means.
- 2) Solar Energy Systems Accessory: A solar panel or array mounted on a building, pole or rack which is directly connected to or designed to serve the energy needs of the primary use. This use will be governed by the Accessory Township Board and/or Building Inspector.
- 3) Solar Farms: a solar array compound of multiple solar panels on ground-mounted rack or poles which is not directly connected to or designed to serve the energy needs of the primary use, but rather for the primary purpose of the wholesale sales of generated electricity. Solar farms include but are not limited to community solar gardens which are defined as solar-electric (photovoltaic) array that provides retail electric power (or a financial proxy for retail power) to multiple community members or businesses residing or located off-site from the location of the solar energy system. A community solar system may be either an accessory or principal use.

Solar Farms: Permitted by Special use permit and meet requirements of this ordinance.

Intent and purpose: To allow the use of solar energy within the Township as a clean alternative energy source and to provide associated placement, land development, installation and construction regulations for solar farms facilities subject to reasonable conditions that will protect the public health, safety and welfare. These regulations establish minimum requirements for solar farm facilities, while promoting a renewable energy source in a safe, effective and efficient manner.

Minimum Lot Size: There is no minimum lot size. Each solar farm is permitted as a special land use which review will consider its compatibility with surrounding area.

Height Restrictions: All photovoltaic panels and support structures located in a solar farm shall be restricted to a maximum height of fourteen (14) feet when oriented at a maximum tilt.

Set Backs: All photovoltaic solar panels and support structures associated with such facilities (including perimeter fencing) shall be setback a minimum of three hundred fifty (350) feet from a side property line, one hundred fifty (150) feet from the rear and front property lines, three hundred fifty (350) feet from any structural building and a minimum of one hundred (100) feet from any road right-of-way to fence line. All facilities shall also be setback at least one hundred fifty (150) feet from any wetland, stream, river, or established County drain right-of-way or easement.

Maximum Lot Coverage: Maximum lot coverage to be either 25% of solar array of the parcel area or 100 acres, whichever is less.

Safety/Access: a security fence eight (8) feet in height and material to be proposed reviewed/approved through the special land use permit process) shall be placed around the perimeter of the solar farm and electrical equipment. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.

Noise: No solar farm facilities shall exceed forty (40) dBA Lmax as measured at the property line. Noise levels to be verified by a third-party testing company within 60 days from the completion of the project. The findings are to be posted with the Township within thirty (30) days of end of testing.

Glare: Solar farm facilities shall be located or placed so that concentrated solar glare shall not be directed toward or onto nearby properties or roadways at any time of the day.

Landscaping: The perimeter of all visible Solar Farm improvements shall be screened and buffered by required installed evergreen or native vegetative plantings located outside of the required fencing whenever existing natural forest vegetation or berming does not otherwise continuously obscure Solar Farm improvements from adjacent parcels, subject to the following requirements:

1. Unless screened and always buffered by natural forest vegetation meeting the minimum spacing and height requirements, and having a substantially similar obscuring effect of an evergreen or native vegetative buffer installed pursuant to the Section, a continuous evergreen or native vegetative buffer shall be installed and maintained at all times at the perimeter of all Solar Farm improvements, including without limitation, between such Solar Farms and adjacent residential or agricultural areas and/or public highways. Nothing contained herein shall be construed to prevent reasonable access to any approved Solar Farm.
2. The required evergreen vegetative buffer shall be composed of spruce or conifer trees that at planting shall be a minimum of six (6) feet in height. The evergreen trees shall be planted in two staggered rows, spaced no more than fifteen (15) feet apart on center (from the central trunk of one plant to the central trunk of the next plant). All unhealthy sixty (60) percent dead or greater and dead material shall be replaced by the applicant within six (6) months, or the next appropriate planting period, whichever occurs first, but under no circumstances should the applicant allow unhealthy or dead material to remain in place for more than six (6) months consecutive months. Failure to maintain the required evergreen vegetative buffer as required by this section shall constitute a violation of the Ordinance and is grounds for revocation of any applicable project approvals including special use permits and site plan approvals.
3. All plant materials for the required evergreen or native vegetative buffer shall be installed between March 15 and November 15. If an applicant requests a Final certificate of Occupancy from the Township and the applicant is unable to plant during the installation period, the applicant will provide the Township with a letter of credit, surety bond, or cash deposit for an amount equal to one and one-half (1.5) times the cost of any planting deficiencies that the Township shall hold until the next planting season. After all planting has occurred, the Township shall return the financial guarantee.
4. The required landscaping buffer for Solar Farms must be 25 feet in width. Lands from the edge of required landscaping buffer to a road right-of-way or adjacent property line (the setback area) must be mowed three times per year or be maintained by some other method acceptable to the Township to maintain a neat and orderly appearance of the setback area.

5. In its discretion, Township may waive all landscaping requirements in this section should it find that an applicant proposed an adequate alternative method to screen the Solar Farm from adjacent properties and roadways or if a particular area of a Solar Farm does not require screening due to, among other things, no reasonable impacts from glare.
6. All setback areas adjoining County drains, streams, rivers and wetlands shall be seeded to grasses and pollinator plantings that deter runoff. This riparian buffer zone, or filter strip shall be designed to adhere to FAS/CREP guidelines.

Local, State, and Federal Permits: Solar farm facilities shall be required to obtain all necessary permits and licensing from the underlying Township, Saginaw County, State of Michigan and U.S. Government as applicable prior to construction and shall maintain any necessary approvals as required by the respective jurisdictions or agencies.

Electrical Interconnections: All electrical interconnections or distribution lines shall comply with all applicable codes and standard commercial large-scale utility requirements. Use of above ground transmission lines are prohibited within the site.

Additional Site Plan requirements:

The applicant shall submit a site plan in full compliance with this Ordinance for each Solar Energy Facility and other solar energy appurtenances. Additional requirements for a solar Facility site plan are as follows:

1. The project area boundaries.
2. The location, height, and dimensions of all existing and proposed structures and fencing.
3. The location, grades, and dimensions off all temporary and permanent on-site and access roads from the nearest county or State maintained road.
4. Existing topography.
5. Water bodies, waterways, wetlands, drainage channels, and drain easements.
6. A site grading, erosion control and storm water drainage plan. The plans will be reviewed by the Township's engineering firm at the applicant's cost.
7. All comments from the Saginaw County Public Works Commissioner's office and Saginaw County Road Commission pertaining to the proposed solar energy facility shall be submitted to the Chapin Township Board of Trustees.
8. All new infrastructures, both above and below ground, are related to the project. This includes inverters and batteries.
9. Identification of a construction/set-up/laydown area.

10. Project design and layout will ensure any structures or other improved areas located within the fenced/improved area shall be located a minimum of one hundred (100) feet from any residential structure, church, school, family or group child day-care home, and bed and breakfast establishments.
11. No portion of the Solar Energy Facility shall contain or be used to display advertising. The manufacturers' name and equipment information or dedication of ownership shall be allowed on any equipment of the solar energy system provided they comply with the prevailing sign regulation.
12. All battery storage shall be prohibited.

Additional Special Use Criteria

In addition to the special land use (and site plan) requirements contained in Chapin Township the applicant shall address the following topics in the application for solar farm facilities:

1. 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, development phases (and potential future expansions) and likely markets for the generated energy.
2. Analysis of On-site Traffic: Estimated construction jobs and estimated permanent jobs associated with the development.
3. Visual impacts: Graphically demonstrate the visual impact of the project using photos or renditions of the project with consideration given to setbacks and proposed landscaping.
4. Environmental Analysis: Identify impacts on surface water quality and any impacts to County drains and/or established natural or private drainage features in the area.
5. Waste: 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. All lighting shall conform to the requirements of this ordinance and must be shielded from adjoining parcels. Light poles are restricted to a maximum height of eighteen (18) feet.
7. 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 drives.
8. 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.
9. Sound limitations: Identify noise levels at the property lines of the project when completed and operational.

10. Telecommunications Interference: Identify any electromagnetic fields and communication interference that may be generated by the project.

11. Life of the Project and Final reclamation: Describe the decommissioning and final reclamation plan after the anticipated useful life or abandonment/termination of the project. The decommissioning plan must include all the following items:

1. The anticipated life of the project.

2. The anticipated present value cost of decommissioning which does not credit the value of any salvage materials or re-sale credits of the Solar Farm components such as solar panels and is prepared by a professional third-party engineer.

3. An updated anticipated cost of decommissioning every 3 years.

4. An explanation of the calculation of the cost of decommissioning and recycling.

5. The physical plan of decommissioning.

6. An updated list of decommissioning contractors and recycling centers for the recycling of decommissioned panels and structures. All material removed, including panels, are to be recycled. This includes supplying evidence of an agreement with the underlying property owner that ensures proper removal of all equipment and restoration of the site within six (6) months of decommissioning or abandonment of the project.

To ensure proper removal of the project upon abandonment/termination of the project, applicants shall include a description of the financial security guaranteeing removal of the systems which must be posted with the Township within fifteen (15) days after approval or before a building or construction permit is issued for the project. The Financial security shall be 1) a cash bond; or 2) an irrevocable bank letter of credit or a performance bond, in form approved by the Township. The amount of such a guarantee shall be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments. The estimate shall be prepared by the third-party engineer for the applicant and shall be subject to approval by the Township.

If the owner of the project or the underlying property owner fails to remove or repair any defective, abandoned or terminated project, the Township, in addition to any other remedy under the ordinance, may pursue legal action to abate the violation by seeking to remove the project and recover all costs, including attorney fees, within thirty (30) days of the defect.

12. Township Review: Because of the ever-changing technical capabilities of photovoltaic solar panels and of new technology in general, the Township Board of Trustees shall have the authority to review and consider alternatives in both the dimensional and physical requirements contained in this Section as part of the special land use review process.

13. Insurance: Proof of the applicant's public liability insurance with at least \$5,000,000 per occurrence to cover the Solar Energy Facility, the Township, and the landowner.

14. Emergency Services: The large scale solar photovoltaic installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the local fire chief. The owner or operator shall cooperate with the local emergency services in developing an emergency response plan. All means of shutting down the solar photovoltaic installation shall be clearly marked. The owner or operator shall identify the person responsible for public inquiries throughout the life of the installation.
15. Fee: An applicant shall remit an application fee and an escrow deposit, in the amount specified by the Township schedule of fees. This schedule shall be based on the cost of the application review and may be adjusted from time to time. If professional review of plans is required, then such costs shall be paid from the escrow deposit.
16. Complaint Resolution: The applicant shall develop a process to resolve complaints from nearby residents concerning the construction or operation of the project. All complaints shall be acknowledged within ten (10) days of receipt of such complaint and the Township supervisor shall also be notified of each complaint. The process may use an independent mediator or arbitrator and shall include a time limit for acting on a complaint. The process shall not preclude the local government from acting on a complaint.
 - a) During construction, the applicant shall maintain and make available to nearby residents a telephone number where a project representative can be reached during normal business hours.
 - b) A report of all complaints and resolutions to complaints shall be filed with the township on a quarterly basis.

17. Continuing Compliance and Enforcement Escrow Deposit: A continuing escrow deposit shall be held by the Township and shall be funded by a cash deposit by the applicant prior to the commencement of the construction of any Solar Farm and shall be maintained by the Solar Farms owner or operator until the Solar Farm has been permanently decommissioned and removed. The monetary amount placed by the applicant in escrow with the Township shall be estimated by the Township to cover all reasonable costs and expenses associated with continuing enforcement of the Ordinance and the terms of a special uses permit and any approvals which costs can include, but are not limited to, reasonable fees for the Township Attorney, Township Planner, and Township Engineer, as well as costs for any consultants, reports, or studies that the Township determines are reasonable related to enforcement of the Ordinance and related approvals.

If the Township is required to expend any portion of the escrow deposit or if the existing escrow amount paid by the applicant proves to be insufficient to cover the Township's enforcement costs, the Township may require the applicant to place additional monies into escrow with the Township.

- a. Continuing Obligations: Failure to always keep any required financial securities or continuing compliance and enforcement cash amount in full force and effect while a Solar Farm exists or is in place shall constitute a material and significant violation of a special use permit and the Ordinance, and will subject the Solar Farm applicant, owner and/or operator to all remedies available to the Township, including enforcement actions and revocation of a special use permit. A review of security and escrow requirements shall occur no less than annually to determine compliance with this section.

18. Required Fencing: Areas that host visible Solar Farm improvements (e.g., ground mounted solar panels) shall be completely enclosed by perimeter security fencing to restrict unauthorized access. Such fencing shall be eight (8) feet in height as measured from the natural grade of the fencing perimeter. The required fencing cannot utilize barbed or razor wire. Moreover, the required fencing must be in between the required Solar Farm landscaping and Solar Farm improvements.

19. Concrete Foundations: Solar Farm improvements (e.g., panels) may not utilize concrete foundations unless an applicant prepares a plan and demonstrates how such foundations will be removed and the land will be restored to a substantially similar condition as its initial condition after the useful life of a project.

20. Inspections: The Township may inspect a Solar Farm at any time by providing 24-hour advance notice to the applicant or operator.


21. Transferability: A special use permit for Solar Farm is transferable to the new owner. The new owner must register its name and business address with the Township and must comply with this ordinance and all approvals and conditions issued by the Township. Within fifteen (15) days.

22. Remedies: If an applicant or operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke the special land use permit and site plan approval after giving the applicant or operator notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

This Ordinance shall take effect seven (7) days from the date of its publication, and all Ordinances or a part of Ordinances in conflict with this Ordinance shall be repealed.

Adopted and passed by the Chapin Township Board of Trustees, at a regular meeting held November 13, 2023.

Signed this 13th day of November 2023


ROBB MAYNARD SUPERVISOR


FRANK GROSS CLERK