PINE TOWNSHIP

ORDINANCE NO. 2023-_____

AN ORDINANCE TO AMEND THE ZONING ORDINANCE TO PERMIT AND REGULATE SOLAR ENERGY CONVERSION SYSTEMS

The Township of Pine ordains:

Section 1. Add Definitions to Chapter 2

The following definitions are added to Chapter 2 of the Zoning Ordinance, and will be placed in the sections of the Zoning Ordinances identified below so that all definitions are in alphabetical order:

Section 2.02:

Array: Any number of electrically connected photovoltaic (PV) modules providing a single electrical output.

Section 2.03:

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 facade, and which does not alter the relief of the roof.

Section 2.04:

Catastrophic Event: A malfunction of the operating system of a Solar Energy System.

Section 2.08:

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

Section 2.10:

Industrial Solar Energy System: A solar energy system located on a parcel of 20 acres or more which is designed and constructed primarily to produce electrical energy for off-site uses or wholesale or retail sale back into an electrical energy grid system to generate electricity to any person or entity.

Section 2.16:

Onsite Solar System: A solar energy system mounted on a building or on the ground and located on a parcel containing a principal use and intended to provide energy solely for on-site uses except for surplus energy back to the electrical grid. An onsite solar system is considered an accessory use of the parcel.

Section 2.17:

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.

Section 2.18:

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.

Section 2.19:

Solar access: The right of a property owner to have sunlight shine onto the property owner's land.

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.

Solar Energy System (SES): 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. This definition does not include small devices or equipment such as solar powered lawn or building lights which house both the solar energy generation system and the system which uses that energy to operate.

Solar Panel: A device for the direct conversion of solar energy into electricity.

Solar-Thermal Systems: A system, which through the use of sunlight, heats water or other liquids for such purposes as space heating and cooling, domestic hot water, and heating pool water.

Section 2.23:

Wall-mounted Solar Energy System: A solar energy system that is installed flush to the surface of the wall of a permanent building.

Section 2. Add New Section 16.04(OO), entitled "Solar Energy Systems" ("SES")

New subsection (OO) is added to Section 16.04 of the Zoning Ordinance and reads as follows:

Section 16.04(OO). Solar Energy Systems.

1. **General Provisions.** All SES are subject to the following requirements:

a. All SES must conform to the provisions of this Ordinance; all county, state, and federal regulations and safety requirements; all applicable building codes, county codes, and airport area zoning ordinances; and all applicable industry standards, including those of the American National Standards Institute (ANSI).

b. The granting of any permit for a SES does not constitute solar access rights.

c. An SES shall be constructed and placed so it does not create a glare for persons off site.

d. An SES shall be properly maintained at all times in accordance with the requirements of this Ordinance. Such maintenance shall include measures to maintain the original appearance of the structures, ensuring that the solar panels do not leak and that the ground cover beneath the panels does not become a visual nuisance or anything deemed catastrophic by the Township Engineer.

e. An SES shall be installed, maintained and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted to the Township prior to installation.

f. An SES and the installation and use thereof, shall comply with the Township building code and obtain applicable County, State of Michigan and federal permits.

g. Any SES that is not operated or not producing electricity for a continuous period of six months as determined by the Township shall be considered abandoned or non-functional and subject to removal. Upon a determination by the Township that a SES should be decommissioned and within 90 days of receipt of written notification from the Township, the owner/operator shall begin to remove the SES from the site in accordance with the approved decommissioning plan.

h. The Township may revoke any approvals for, and require the removal of, any SES that does not comply with this Ordinance.

i. SES are permitted in the Township in the following districts, subject to this Section 16.04(OO) and other applicable provisions of the Zoning Ordinance:

2. **Requirements for Rooftop and Wall Mounted SES**

a. Roof and wall mounted onsite SES are a permitted accessory use in all zoning districts subject to review and approval by the Building Official and require a building permit. Applicants shall submit an accurate sketch plan to the Building Official providing the location of the building, location of the SES, the height of the SES including a data sheet and installation instructions from the equipment manufacturer and other information as requested by the Building Official. The applicant shall provide information on the type of solar panel to be used and any hazardous chemicals contained in the solar panels and measures to prevent leakage.

b. Roof mounted SES shall not project more than five feet above the highest point of the roof, and in any case, shall not exceed the maximum building height limitation for the zoning district in which it is located, and shall not project beyond the eaves of the roof.

c. Roof and wall mounted SES shall be securely and safely attached to a building or structure. Proof of the safety and reliability of the means of such attachment shall be submitted to the Building Official prior to installation. Such proof shall be subject to the Building Official's approval.

d. Wall-mounted SES shall not exceed the height of the building wall to which they are attached.

e. Wall-mounted SES may be mounted on a building wall that faces upon a public or private street.

f. Wall and roof mounted SES shall be properly maintained in good repair and condition at all times, so they maintain their original appearance and do not pose a potential safety hazard.

3. **Level 1 Onsite Ground Mounted SES**

a. A Level 1 Onsite Ground Mounted Solar Energy System (Level 1 SES) generally provides energy for onsite uses. This type of system is allowed in all zoning districts except the Lake Residential Zone as a permitted accessory use and structure subject to review and approval by the Building Official and require a building permit according to the following requirements.

b. The parcel proposed for the Level 1 Onsite SES shall contain an existing main building.

c. The area occupied by a Level 1 Onsite SES shall not exceed 5,000 sq. ft. The measurement shall be taken around and at the outer edge of the perimeter of the solar panels.

d. Application. Applicants shall submit an accurate sketch plan to the Building Official illustrating property lines of the parcel, buildings on the parcel, wetlands or bodies of water on the site and within 100 feet of the site, the proposed setbacks and height of the SES including a data sheet from the equipment manufacturer and other information as requested by the Building Official.

e. Location and Setbacks. A level 1 Onsite SES may be located in the front, rear and side yards subject to the following minimum setbacks. The measurement shall be taken from the lot line to the edge of the solar panel.

1. Front: A minimum of 100 feet from each front lot line.

2. Side and rear: A minimum of ten feet from the side and rear lot lines.

3. The Building Official may require a greater setback to ensure compatibility with adjacent land uses.

f. Height: A Level 1 Onsite SES shall not exceed a height of 14 feet when oriented at maximum tilt.

g. Screening. Greenbelt screening is required around any Level 1 Onsite Solar Energy System and around any equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy System from any adjacent residences. The greenbelt must consist of shrubbery, trees, or other non-invasive plant species that provide a visual screen. In lieu of a planting greenbelt, a decorative fence that is at least 50% opaque (meeting the requirements of this Ordinance applicable to fences) may be used if approved by the Zoning Administrator.

h. Lot Area Coverage. No more than 20% of the total lot area may be covered by a Level 1 Onsite Solar Energy System.

4. **Level 2 Ground Mounted SES Allowed by Special Use Permit**

a. A Level 2 Onsite Ground Mounted Solar Energy System (Level 2 SES) shall only occupy an area at least 5,000 sq. ft. but no more than 5 acres and is allowed in all zoning districts except the Lake Residential Zone as a permitted accessory use subject to review and approval of a Special Use Permit by the Planning Commission in accordance with the requirements and procedures of Chapter 16 herein and the following requirements. The measurement shall be taken around and at the outer edge of the perimeter of the solar panels.

b. The parcel proposed for the Level 2 Onsite SES shall contain an existing main building.

c. Location and Setbacks. A Level 2 Onsite SES may be located in the front, rear and side yards subject to the following minimum setbacks. The measurement shall be taken from the lot line to the edge of the solar panel.

1. Front setback: A minimum of 100 feet from each front lot line.

2. Side and rear setback: A minimum of 100 feet from the side and rear lot lines.

3. The Planning Commission may require a greater setback to ensure compatibility with adjacent land uses.

4. Wetlands and bodies of water: A minimum setback of 500 feet.

d. Height. A Level 2 Onsite SES shall not exceed a height of 14 feet when oriented at maximum tilt.

e. The portion of the premises on which the array of collector panel structures is located shall not be paved with asphalt or covered with any other surface material that is impervious to rainwater.

f. The applicant shall provide information on the type of solar panel to be used and any hazardous chemicals contained in the solar panels and measures to prevent leakage.

g. Electrical Interconnections. All electrical interconnection or distribution lines shall comply with all applicable codes. The applicant shall provide evidence to the Township of approval from the applicable utility company.

h. Use of above ground transmission lines shall be prohibited within the site unless required by the offsite utility company which is receiving the energy produced by the Level 2 Onsite SES.

i. A decommissioning plan, timeframe not to exceed one year, shall be provided as required by this Ordinance.

j. Lot area coverage: No more than 30% of the total lot area may be covered by a Level 2 Onsite SES.

5. **Industrial Solar Energy Systems (ISES)**

a. An ISES provides energy exclusively for offsite uses and is only permitted in the Light Industrial Zoning District subject to review and approval of a Special Use Permit by the Planning Commission in accordance with the requirements and procedures of Chapter 16 herein and the following requirements.

b. An ISES shall only be permitted on parcels which are 20 acres or larger.

c. Application Requirements. In addition to the site plan required by this Ordinance, the applicant shall provide the following information:

1. Proof of lease or purchase agreement for the parcel containing the proposed ISES.

2. Type of solar panel to be used and any hazardous chemicals contained in the solar panels and measures to prevent leakage.

3. Identify the type, size, rated power output, performance, safety and noise characteristics of the system.

4. Name and address of the manufacturer, and model of the ISES;

5. A list of all permits such as a soil erosion, drainage, building, electrical and other permits required by County, State and federal agencies to install the ISES.

6. Identify installation time frame, project life, development phases, likely markets for the generated energy, and possible future expansions.

7. Elevation drawings, detailed computer and/or photographic simulations and other models and visual aids showing the solar energy system with all related facilities as they will appear on the proposed site.

8. A written description of the maintenance program to be used to maintain the ISES, type of ground cover and necessary maintenance, and the anticipated construction schedule.

9. Digital versions of all planning and construction documents required pursuant to Chapter 14, Site Plan Review. Digital submittals are in addition to paper plans and do not replace any current submission requirements. Digital versions shall be submitted in PDF (Adobe Acrobat/Portable Document File) format.

10. Evidence that the ISES will not create a glare for persons off site or airplane operators.

11. Distance from the proposed ISES solar panels to the nearest habitable dwelling unit on a parcel which does not contain the ISES.

12. A security plan detailing on-site security provisions which may include fencing, full-time security guards, video surveillance, and similar methods.

13. A construction waste management plan detailing the methods of waste disposal of the cardboard, wood, scrap metal, and scrap wire resulting from construction of the ISES.

14. A landscaping plan illustrating the number, size, type and spacing of trees proposed to screen the ISES from nearby roadways.

15. Additional information as required by this Ordinance, or as may be required by the Planning Commission.

16. The Planning Commission may waive or modify the above requirements at the request of the applicant/owner/operator if the Commission determines that those items would not be needed to properly review the project.

17. Complaint Resolution Plan. A plan for resolving complaints from the public or other property owners concerning the construction and operation of the ISES in compliance with this Ordinance.

18. A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Solar Energy System, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Solar Energy System and restore the subject parcels, which is subject to the Township's review and approval.

19. Financial security that meets the requirements of this Section, which is subject to the Township's review and approval.

20. A transportation plan for construction and operation phases, including any applicable agreements with the County Road Commission and Michigan Department of Transportation, which is subject to the Township's review and approval.

21. An attestation that the applicant/owner/operator will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Solar Energy System, which is subject to the Township's review and approval.

d. Requirements for Industrial SES

1. Industrial SES shall be ground mounted

2. The minimum parcel size for an ISES shall be 20 acres. A parcel containing a ISES shall not require frontage on a public street.

3. Setbacks. The solar panels in an ISES shall comply with the following minimum setbacks. The measurement shall be taken from the lot line to the edge of the solar panel.

   i. Front setback: A minimum of 100 feet from each front lot line.

   ii. Side and rear setback: A minimum of 300 feet from the side and rear lot lines.

   iii. Wetlands and bodies of water: A minimum of 2640 feet.

   iv. The Planning Commission may require a greater setback to ensure compatibility with adjacent land uses.

4. Height. An ISES shall not exceed a height of 14 feet when oriented at maximum tilt.

5. Use of above ground transmission lines shall be prohibited within the site unless required by the offsite utility company which is receiving the energy produced by the ISES.

6. Safety/Access: A security fence shall be placed around the perimeter of the ISES with a locked gate. Knox boxes and keys shall be provided at locked entrances for emergency personnel access subject to approval of the Township Fire Chief. The fence shall be chain link with three strands of barbed wire at the top and be at least six feet high.

7. The facility shall be designed for interconnection to a public utility electrical power grid and shall be operated with such interconnection. All electrical interconnection or distribution lines shall comply with all applicable codes. The applicant shall provide evidence to the Township of approval from the applicable utility company.

8. The portion of the premises on which the array of collector panel structures is located shall not be paved with asphalt or covered with any other surface material that is impervious to rainwater.

9. Drainage shall include retention pond(s) designed to prevent potential contamination from reaching the nearest wetlands or bodies of water.

10. Plantings shall be installed around the perimeter of the parcel or parcels containing the ISES within 90 days or as otherwise approved by the Planning Commission. One deciduous or conifer tree for every 12 feet of property line length is required. The Planning Commission may modify the landscaping requirement depending upon the location of existing plant material on the site or if additional plantings are needed to buffer existing land uses. Trees shall be of a species native

to the area and shall be a minimum of four feet tall when planted and remain in good condition for the life of the project.

11. Lot Area Coverage. No more than 30% of the total lot area may be covered by an Industrial Solar Energy System.

12. Noise. The noise generated by an Industrial Solar Energy System must not exceed the following limits:

i. Maximum Noise Levels. Noise levels produced by the ISES must not exceed 40 dB(A) Leq 1 second or 50dB(C) Leq 1 second at any time on a non-participating property. The Township Board may, in its sole discretion, allow a higher noise level only if the owner of the non-participating property signs a waiver consenting to a specific higher noise level and the waiver is recorded with the Montcalm County Register of Deeds.

ii. Noise Compliance. The Township may, from time to time, measure whether the ISES is complying with the maximum noise levels under this Ordinance. Compliance measurements are the financial responsibility of the applicant or operator and must be independently performed by a qualified professional selected by the Township.

iii. In addition to the above limitations, a sound barrier of a solid decorative masonry wall or evergreen tree berm, with trees spaced not more than 10 feet apart, must be constructed to reduce noise levels surrounding all inverters. The berm must be no more than ten (10) feet from all inverters, must be at least as tall as all inverters but not more than three (3) feet taller than the height of all inverters.

Drain Tile Inspections. The Industrial Solar Energy System must be maintained in working condition at all times while in operation. The applicant or operator must inspect all drain tile at least once every three years by means of robotic camera, with the first inspection occurring before the Solar Energy System is in operation. The applicant or operator must submit proof of the inspection to the Township. The owner or operator must repair any damage or failure of the drain tile within sixty (60) days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection.

e. <u>Decommissioning Plan</u>:

1. The applicant/owner/operator shall submit a decommissioning plan which shall address the following:

i. Defined conditions upon which decommissioning will be initiated (i.e., end of land lease, no power production for six months, obsolete equipment and similar circumstances.)

ii. A description as to how the useful life of the system will be determined and who will make this determination.

iii. Removal of all non-utility owned equipment, conduit, structures, fencing, roads, and building foundations.

iv. Restoration of property to the condition prior to development of the ISES including measures to ensure that soils are not contaminated, as determined by an independent third party chosen by the Township at the expense of the applicant, during decommissioning.

v. The timeframe for completion of decommissioning activities in accordance with this Ordinance, not to exceed one year.

vi. An engineer's cost estimate for all aspects of the decommissioning plan kept current and updated every two years.

vii. Description of any additional agreement with the landowner regarding decommissioning.

viii. Provisions for updating the decommissioning plan.

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. The Planning Commission shall require that the applicant/owner/operator provide a financial guarantee to cover the costs of decommissioning the site in accordance with this Section.

xi. The site must be filled and covered with clean, screened top soil, free from contaminates and restored with a suitable cover crop, and restored to a state compatible with the surrounding vegetation.

f. Insurance: The applicant/owner/operator/landowners shall indemnify, defend and hold harmless the applicant/owner/operator/landowners itself and Pine Township, all as additional named insureds, against any and all claims arising out of the existence, operation or failure of the solar energy system.

The applicant/owner/operator/ shall procure comprehensive general liability, casualty, wrongful acts insurance policies, and any other policies customary to the solar energy system industry. This insurance shall be in the amount of $10 million per occurrence. The Planning Commission may adjust these amounts periodically to reflect inflation.

The applicant/owner/operator/ shall maintain these insurances for the duration of the construction, operation, decommissioning, removal and site restoration of the solar energy system. The insurance carrier shall be instructed to provide Pine Township with certificates of the existence of such insurances within 30 days (during which time the Township shall not be responsible for any liability, casualty, or wrongful acts) and shall be instructed to notify the Township if such insurances expire for any reason. Failure of the applicant/owner/operator to maintain these insurances at all times may result in termination of the permit.

g. Certification of Compliance: The applicant/owner/operator shall provide certification to the Township that the applicant/owner/operator has complied or will comply with all applicable county, state and federal laws and regulations before a building permit is issued by the Township.

h. Administration Costs Initial Application and Ongoing:

1. For each Industrial solar energy system application, the applicant/owner/operator shall deposit into an escrow account the amount of $25,000. The purpose of this joint escrow account is:

i. To reimburse Pine Township for its costs incurred to hire consultants and experts as the Township, at its sole discretion, deems desirable to examine, evaluate and verify the data and statements presented by the applicant/owner/operator.

ii. For the life of each solar energy system, to cover the administrative and legal costs incurred by Pine Township in monitoring and enforcing the applicant/owner/operator/landowner's ongoing compliance with the Ordinance.

2. The account shall be managed as follows:

i. Funds can be withdrawn from this account only by the signature of a Township designee.

ii. If at any time the balance of this account shall fall below $10,000, the applicant/owner/operator shall deposit additional funds to restore the account to a $25,000 balance.

iii. If at any time the balance of this fund shall fall below $10,000 for a continuous period of thirty days, the application shall be considered to have been withdrawn, or the Permit for the solar energy system may be terminated.

i. The Township Clerk or Township designee shall be charged with monitoring the escrow account and giving quarterly reports to the Planning Commission. After the solar energy system has been removed and site restoration has been completed, as defined in this Ordinance, any balance remaining in this account shall be returned to the applicant/owner/operator.

j. Removal Cost Guarantee: The cost of removal and site restoration is the full responsibility of the applicant and/or owner/operator. In order to provide the greatest possible financial assurance that there will be sufficient funds to remove the industrial solar energy system and to restore the site, the following steps shall be followed:

1. For each industrial solar energy system, the applicant/owner/operator shall determine an amount of money equal to the estimated removal and restoration cost. The Planning Commission shall require independent verification of the adequacy of this amount which shall be reviewed every two years and is subject to change per recommendation of the Planning Commission.

2. This money shall be deposited in an escrow account specified by Pine Township, which may be an interest-bearing account. A surety bond, letter of credit, or other financial promise shall not be accepted.

3. Withdrawals will be made from this account, solely by Pine Township or its designee, only to pay for removal and site restoration of the solar energy system as provided for in this Ordinance.

4. Any funds left in the account for each solar energy system after removal and site restoration shall be returned by Pine Township to the applicant/owner/operator.

5. This financial security must be posted within fifteen (15) business days after approval of the special land use application.

k. Transferability. A special use permit for an Industrial Solar Energy System is transferable to a 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.

6. **Violations of Ordinance**

a. Following notice and an opportunity to be heard, the Township may revoke any approvals for, and require the removal of, any SES that does not comply with this Section 16.04(OO).

b. In addition to any other remedies in this section, violations of this Section 16.04(OO) also constitute a municipal civil infraction in accordance with Chapter 18 of this Ordinance. Each day that a violation occurs or continues constitutes a separate offense and is subject to penalties or sanctions as a separate offense under Chapter 18.

c. In addition to any other remedies set forth in this Ordinance, the Township may bring an action for damages or for an injunction or other action to restrain, prevent, or abate any violation of this Section.

Section 3. Amend Section 10.03

Section 10.03, entitled "Special Land Uses" for the LI Light Industrial District, is amended to add "Industrial SES subject to Section 16.08(NN)" as a special land use.

Section 4. Validity and Severability.

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

Section 5. Repealer.

All other ordinances inconsistent with the provisions of this Ordinance are repealed to the extent necessary to give this Ordinance full force and effect including the "Amendment to Permit Solar Energy Systems Township of Pine, County of Montcalm, Michigan."

Section 6 Effective Date.

This Ordinance takes effect seven (7) days after publication as provided by law.

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