

DRAFT WITH ATTORNEY CHANGES AND PLANNING COMMISSION CHANGES  
FROM 2023-3-7 MEETING FOR PUBLIC HEARING ON APRIL 10, 2023

KEENE TOWNSHIP

ORDINANCE NO. \_\_\_\_\_

Adopted Date: \_\_\_\_\_

Published Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

AN ORDINANCE TO AMEND THE ZONING ORDINANCE  
ARTICLE XII

THE TOWNSHIP OF KEENE ORDAINS:

**Section 1: Amendment to certain Solar Energy System Provisions. Paragraph L, including all subparts, of Section 12.27 of the Zoning Ordinance, is amended to state in full as follows: Amend the Solar Energy Section as shown below:**

Section 12.27 – Solar Energy Systems

~~This ordinance aims to promote the accommodation of on-site residential and non-residential solar energy systems installed to reduce on-site energy consumption and associated equipment, as well as adequate access to sunlight necessary for such systems. This ordinance permits solar energy systems, while protecting the safety and welfare of adjacent and surrounding land uses through appropriate zoning and land use controls. Small scale solar energy systems and medium ground or pole systems shall be permitted in any zoning district as an accessory use, subject to specific criteria as set forth below. Large Ground or pole mounted and commercial scale solar energy systems require a special land use application. Where general standards and specific criteria overlap, specific criteria shall supersede general standards.~~

In addition to any other requirements of the Keene Township Zoning Ordinance, these provisions further promote the accommodation of on-site residential and non-residential solar energy systems while protecting the public health, welfare, and safety of adjacent and surrounding land uses through appropriate zoning and land use controls. Small scale solar energy systems and medium ground or pole systems shall be permitted in any zoning district as an accessory use, subject to specific criteria as set forth below. Large ground or pole mounted, and commercial scale solar energy systems require a special land use application. Where general standards and specific criteria overlap, specific criteria shall supersede general standards.

(Commercial Section)

- L. The installation and construction of a **commercial solar energy system (solar farm CSES)** will ~~shall~~ require a special land use permit and in addition to the requirements of Article 12, shall be subject to the following standards below. A written application for such special land use application shall be submitted and shall include the requirements set forth herein and shall describe an estimated construction timeline and phasing of the project. A scaled drawing site plan shall include the requirements set forth below and any requirements of the Site Plan Review Article 19 and the Special Land Use Article 12. Related definitions are in Article 2 under the definition of Solar Energy. An application shall also list all participating parcel numbers and descriptions of easements proposed within the solar system areas on the site plan. Aerial maps of the project parcels are required along with the regular site plan.

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1. A commercial solar energy system may be established as a principal or accessory uses in the AG Agriculture and; AR Agriculture Residential Districts ~~and in the RR Rural Residential District on parcels 40 or more acres.~~ The following requirements shall apply:
  - a. Minimum Setbacks for structures, equipment and solar panels shall be 400-200 feet minimum from all lot lines and 100 feet from road right of ways plus minimum setbacks of 300 feet from neighboring dwellings. If there are multiple parcels in the solar project location, then the lot line setbacks of this section do not apply to the lot lines shared in the group but are measured from the exterior boundary of the entire group of parcels. Inverters shall be placed toward the interior areas of the solar panels to be farthest away from the edge of the setback lines. Noise from any inverter, transformer and substation shall not exceed 40 dBA at the exterior lot lines of the project boundary and any neighboring dwellings in existence at the time of granted approval. A participating dwelling owner may agree to a higher dBA level with a signed statement. Parcels with lot lines to the center of a road, the limit is measured at the road right of way. To reduce sound levels around inverters, transformers or substations, fences, walls or other sound absorption reduction methods may be used or required.

Setbacks from wetlands or County drains shall also meet the requirements of such governing agencies/departments. If a parcel abuts a solar project with three sides, then the dwelling setback shall be 400'. If agreeable with a non-participating abutting landowner, setbacks may be less than the foregoing requirements, but a consent in writing must be submitted. However, as ~~As~~ a condition of approval, the Township may also require increased setbacks than the foregoing if requirements if it is determined that greater separation would better protect public health, safety and welfare, including adjacent residents and landowners. The commercial solar energy system components shall not count towards the maximum lot coverage for the project location parcels.
  - b. Maximum height of solar panels allowed is ~~30-18~~ feet, as measured from the existing natural grade below the unit to the highest point at full tilt. A taller system structure may be approved up to 25' at full tilt if a need for more height can be demonstrated such as nearby trees, buildings or topography. The height of any lightning rods shall be limited to what is necessary and shall be engineered to protect the solar energy system equipment.
  - c. Minimum Acreage for ~~the a~~ commercial solar energy system farm is five (5) ten (10) acres in the AG and AR Districts. Maximum project area of a commercial solar energy system shall not exceed 500 acres in total of the Township. A project area means the surface areas of the land covered by solar arrays, inverters and the spacing between the rows of panels but not including any required setback areas. Agrivoltaics (dual use solar/agriculture) of the project land is permitted per landowner/solar energy company agreements. Grazing of farm animals around the solar panels are permitted with suitable ground cover crops.

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- d. ~~Views~~ Screening is required to protect views of collectors and equipment from adjacent residential properties or public street right-of-way rights-of-way ~~may be required to be screened~~ to the greatest extent possible. Screening methods may include existing natural conditions and the use of materials, colors, textures, screening walls, fences, trees, shrubs, evergreens, berms and landscaping that will blend the facility into the natural setting and existing environment. Dead or diseased vegetation shall be replaced at the next appropriate planting time. A vegetation plan shall include screening types and heights, staggered rows plus vegetation to be planted under, in and around the panel structures. No widespread spraying to kill vegetation under and around the solar panels is permitted except for targeted or spot spraying as needed. Pollinator species are encouraged to be planted around the panel areas. Screening vegetation or fencing shall be installed at the same time the solar panels are constructed. Trees or shrubs shall be at least 6 feet high at planting. The Planning Commission may require more or less screening and vegetation depending on adjacent properties location and views.
- e. A small sign with emergency contact information shall be installed on or near the solar energy equipment. "No Trespassing" signs shall be attached to any fencing or installed every 100 feet. Signs must be maintained in good condition or replaced if deteriorated.
- f. The area where the solar panel structures are located shall be enclosed with a six (6) foot high fence to prevent trespassing or vandalism. Gates with locks shall be designed to prevent trespassing. A system for access of emergency personnel shall be provided as required by the local Fire Department. The Planning Commission may allow alternative fencing for flexibility such as animal passage, view, safety, or trespassing prevention. Fencing types shall be designed for small animal migration such as woven wire spacing or other opening types. For larger land areas, animal migration corridors may be required as a condition of approval. All fences and gates shall be regularly maintained in good working condition. Repairs shall be completed within 30 days of damage unless such time is extended for valid reasons approved by the Township.
- g. All power transmission lines from a ground mounted solar energy system to any building or other structures, inverters, substations or electrical grid shall be located underground and/or in accordance with the State and National Building Electrical Code, as appropriate. Power and communication lines running between racks of solar energy collectors may be placed above ground, providing the lines are placed no higher than the top of the solar panels such as attached to the frames under the panels and not interfere with plant life and grazing animals underneath the rows of panels. After installation, and periodically every two years, testing for stray voltage shall be completed using the latest technology. Testing results need to be reported to the Township and repairs done within 30 days.

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- h. Solar panels shall be designed to absorb (not reflect) sunlight; and, as such, solar panels shall be less reflective than other varnished or glass exterior housing pieces. However, solar panel placement shall be prioritized to minimize or negate any concentrated solar glare onto nearby properties, dwellings or roadways. The Planning Commission may require a glare study be submitted.
- i. A solar energy system shall not be used to display permanent or temporary advertising, including signage, streamers, pennants, spinners, reflectors, banners or similar materials. Manufacturer and equipment information, warnings, or other indication of ownership shall be allowed on any equipment of the solar energy system provided such displays comply with any applicable sign regulations.
- j. A solar energy collector system shall be permanently and safely attached to the ground based on the manufactures installation guide. Solar energy collectors shall comply with building codes and other applicable Township, County, State and Federal requirements and permits. The project developer and project owner shall be responsible for up to date training and any special equipment needed for an emergency handled by the local Fire Departments for the life of the project. An emergency plan or policy shall be submitted to the Township and the local Fire Departments and approved by the local Fire Chiefs.
- k. Access driveways shall be wide enough and have sufficient ground surface materials to support the weight of emergency vehicles. All access driveways shall be maintained regularly for year round passage of vehicles. Separate gates may be proposed and allowed at the public road right of way to discourage people from coming onto the property in the setback areas. Driveway permits shall be obtained from the County Road Commission for access off public roads.
- l. A solar energy system shall not be constructed until zoning and building permits have been approved and issued along with the following requirements.

  - 1. Installation shall be constructed to all Township approvals and ordinances and to all applicable codes, permits and manufacturer's instructions. Prior to operation, electrical connections must be inspected by the Ionia County Building Department Inspectors.
  - 2. Any connection to the public utility grid must be approved by the appropriate public utility. Provide a copy of the applicant's power purchase agreement with the electric utility company showing approval of an interconnection with the proposed solar project.
  - 3. The solar energy system project owner shall be presumed to be the responsible party for owning and maintaining the solar energy system unless someone else is specified through a contract or agreement.
  - 4. An approved commercial solar energy system can be transferred to a different owner, but the new owner must register its name and address with the Township within 30 days and comply with the project approval and conditions issued by the Township as well as any applicable ordinance.
- m. All required or other lighting shall be dark sky compliant types and not shine onto vehicles on streets or nearby homes.

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- n. Farm field tiles or stormwater drain tiles must be repaired if damaged or broken during construction of the system and during the life of the project. The developer or project owner shall provide an inspection by camera or similar technology and provide a report of drainage tiles pre-construction, post construction, post decommissioning and at other times if drain issues arise. Repairs shall occur in 30 days unless a reasonable extension is requested and granted. The developer or owner is responsible for repair to damaged drainage equipment unless no fault of theirs is proven.
  - o. A plan must be submitted on how any hazardous waste is managed. Through the life of the project, if the plan is updated, the Township must approve the plan change.
  - p. MSDS Manufacturer Material Safety Data Sheet(s) shall be provided and must include the type and quantity of all materials used in the operation of all equipment.
2. Impact Studies. The Planning Commission may require studies such as wildlife impact, wetland impact, property values, glare reflections, historical significance, or any other reasonable study subject. The Planning Commission may also request other types of reasonable, relevant information to evaluate any proposal.
3. Complaint Plan. The applicant/company shall provide a plan of how complaints are taken, who to contact, the nature of the complaint and how they are resolved. Copies of any complaint shall be provided to the Township Board within 30 days of the filed complaint and the resolution provided within 60 days unless more time is required if approved by the Planning Commission.
24. Decommissioning. A decommissioning plan signed by the responsible party ~~energy company~~ and the landowner (if different) addressing the following shall be submitted prior to approval of any project:
- a. ~~Defined conditions~~ Conditions upon which full or partial decommissioning will be initiated, including the following: (i.e. at the end of a land lease for the solar energy system, no power production for 12 months, abandonment and/or, panels and equipment not fully constructed or operational for 12 months. etc.)
  - b. ~~Removal of~~ Removal of all full or partial decommissioned utility owned equipment and non-utility owned equipment, conduit, wiring, structures, fencing, roads, solar panels, and foundations shall be completed within 12 months. Extension requests at three month intervals must be approved by the Planning Commission. The landowner may request to allow some items to remain such as an access road, fencing or concrete if approved by the Planning Commission.
  - c. Restoration of property to the condition prior to development of the solar energy system, except as approved in b above.
  - d. The estimated timeframe for completion of decommissioning activities.
  - e. ~~Description of any agreement or lease with landowner regarding decommissioning, if applicable.~~
  - f.e. The ~~entity~~ company name, address and credentials or individual responsible for decommissioning shall be provided.

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- f. Bi-yearly reports shall be submitted on active and inactive solar panel electricity generation, current proof of insurance, and a summary of complaint resolutions and any extraordinary events. If an extraordinary event occurs, such as a fire, damage to equipment, personal injury or catastrophic event, the Township shall be notified within 24 hours.
- g.g. Plans for updating the decommissioning plan shall be provided by the responsible energy developer company or project owner if the plan changes with technology or other future reasons. If a plan is to repower (replace large amounts of older working or nonworking panels) instead of decommissioning due to new technology or other reasons, a narrative and site plan shall be submitted to the Township Board for a review.
- h.h. As a condition of approval, A performance guarantee shall be posted in the form of a bond, letter of credit, escrow deposit, cash, or other form acceptable to the Township, to ensure removal and restoration of the land upon decommissioning or abandonment. As a part of the decommissioning plan, the responsible party shall provide at least two (2) cost estimates plus 10% from qualified contractors for full removal of the equipment, foundations, and structures associated with the facility plus restoration costs. These amounts will assist the Township when setting the performance guarantee amount. Every 2 years new cost estimates shall be provided, and the performance amounts reevaluated by an engineer selected by the Township and paid for by the project owner. The performance guarantee shall be valid throughout the lifetime of the facility. Bonds and letters of credit shall be extended on a regular basis with expiration dates never less than two (2) years from the annual anniversary of special land use approval. Bonds need to be renewed 90 days prior to the expiration date. If the responsible party or operator fails to remove all equipment and restore the land to the prior condition in the time allotted, then the Township may draw on those funds to have the work done to pay associated costs including legal fees and expenses. The Township reserves all rights it has to enforce its approvals and/or ordinances.
5. Documentation is required that releases Keene Township from any costs, liability arising from an approval, construction, installation, maintenance, use, repair, or removal the commercial solar energy system. A liability/ property/casualty insurance policy shall be submitted and maintained in the amount as determined by the Township and professional study according to the size of the project.
6. Permits and documentation shall be submitted from other agencies such as the Ionia County Drain Commission for stormwater and soil erosion plans, Road Commission for driveway entrances, road damage and construction truck routes, Michigan Dept. of Environment Great Lakes and Energy (EGLE) for wetland distances and other permits, local Fire Dept review and training, and any other Federal, State, County or other relevant agencies or departments. Any land in the State PA 116 plan is not eligible for a commercial solar energy system unless the owner can show approval or withdrawal of the lands from the Michigan Department of Agriculture to locate a commercial solar energy system on these lands. Agricultural recapture taxes may be owed upon a change of use to a solar

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energy system. Any cost to repair damage caused by the developer is the responsibility of the developer or project owner.

7. The Township Representative and landowner may inspect the solar energy system project at any time by providing a notice to the applicant or operator at least one business day in advance. The Township may hire a third party to assist with any such inspections of the solar energy system.

**Section 2:**

Validity and Severability. Should any portion of this Ordinance be found invalid for any reason, such holding shall not be construed as affecting the validity of the remaining portions of this Ordinance.

**Section 3:**

Repealer Clause. Any ordinances or parts of ordinances in conflict herewith are hereby repealed only to the extent necessary to give this Ordinance full force and effect.

**Section 4:**

Effective Date. This Ordinance shall be effective seven (7) days after publication.

**ADOPTED:**

**Yeas:** \_\_\_\_

**Nays:** \_\_\_\_

**Abstain:** \_\_\_\_

**Absent:** \_\_\_\_

**STATE OF MICHIGAN**                    )  
  )  
**COUNTY OF IONIA**                    )

I, the undersigned, the duly elected Clerk of Keene Township, Ionia County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and complete representation of certain proceedings conducted by the Board of Trustees of said Township at a meeting held on this \_\_\_\_\_ day of \_\_\_\_\_ 2023.

\_\_\_\_\_  
Tami Hardy  
Keene Township Clerk