

**LOWELL CHARTER TOWNSHIP
KENT COUNTY, MICHIGAN**

ORDINANCE NO. 07-2022Z

AN ORDINANCE TO REGULATE SOLAR ENERGY SYSTEMS

At a regular meeting of the Township Board for Lowell Charter Township held at the Township Offices on August 15, 2022, Township Board Member Thompson made a motion, seconded by Township Board Member Anderson to adopt this Ordinance:

**AN ORDINANCE TO AMEND THE LOWELL CHARTER TOWNSHIP ZONING
ORDINANCE BY AMENDING SECTION 4.30 TO REGULATE SOLAR ENERGY
SYSTEMS**

**THE CHARTER TOWNSHIP OF LOWELL
KENT COUNTY, MICHIGAN ORDAINS**

ARTICLE 1. Section 4.30 of the Lowell Charter Township Zoning Ordinance, Solar Panels, is hereby **AMENDED** to read in its entirety as follows:

4.30 Solar Energy Systems (SES)

a) **Purpose.** Lowell Charter Township desires to promote the effective and efficient use of solar energy systems (SES) subject to reasonable regulations. It is the intent of the Township to permit these systems under certain circumstances by regulating the siting, design and installation of such systems to protect the public health, safety, and welfare, and to ensure compatibility of land uses in the vicinity of solar energy systems and to implement the recommendations of the Lowell Charter Township Master Plan.

b) **Definitions.**

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

Building Integrated Photovoltaic (BIPV) Systems: A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof, wall or the façade, and which does not alter the relief of the roof.

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

On-site Solar System: A solar energy system mounted on a building or on the ground and located on a parcel containing a principal use. An onsite solar system is considered an accessory use of the parcel and provides its electricity or heat primarily to uses on the parcel.

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.

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.

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 lights for walkways, buildings, or similar lights which house both the solar energy generation system and the system which uses that energy to operate.

Solar Farm: A solar energy system which is the principal use of a parcel, and which is designed and constructed to produce electrical energy for sale back into an electrical energy grid system and not consumed on site.

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 or heating pool water.

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

c) General Requirements for Solar Energy Systems

- (1) This Section applies to solar energy systems to be installed and constructed after the effective date this Section.
- (2) Lawful solar energy systems constructed prior to the effective date of this section shall not be required to meet the requirements of this section; provided that any structural change, upgrade, or modification to an existing solar energy system that materially alters the size, location or placement of such system shall comply with the provisions of this section.
- (3) The granting of any permit for a solar energy system does not constitute solar access rights.
- (4) A solar energy system shall be constructed and placed so it does not create a glare for persons off site.
- (5) A solar energy system shall be properly maintained at all times. Such maintenance shall include measures to maintain the original appearance of each structure, ensuring that the solar panels do not leak and or otherwise become a visual nuisance.

- (6) The height of a solar energy system shall be measured from the highest point of the panel when oriented at its maximum tilt to the ground immediately below the panel.
- (7) Solar energy systems 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 offices prior to installation.
- (8) Solar energy systems, and the installation and use thereof, shall comply with the Township building code and the landowner shall obtain all applicable County, State of Michigan, and federal permits.
- (9) Any SES that is not operated for a continuous period of twelve months as determined by the Township shall be considered abandoned or non-functional and subject for 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 and proceed promptly toward completion in accordance with the approved decommissioning plan.

d) Requirements for Rooftop and Wall Mounted SES

- (1) Roof and wall mounted SES as defined herein are a permitted use in all zoning districts, but a building permit is required before installation. Before the issuance of such permit an applicant for a SES shall submit an accurate sketch plan to the Township Zoning Administrator providing the location of the parcel containing the SES, 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 Zoning Administrator. 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.
- (2) A 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.
- (3) Each 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 along with information that the roof is capable of supporting the equipment. Such proof shall be subject to the Building Official's approval.
- (4) Each wall-mounted SES shall not exceed the height of the building wall to which it is attached.
- (5) Each wall-mounted SES shall not be mounted on a building wall that faces upon a public or private street.

e) On-Site Ground Mounted SES

- (1) On-site Ground Mounted Solar Energy Systems are allowed only in the AG-1, AG-2, R-1, General Commercial, Light Industrial, and the I-96 Planned Unit Development zoning

districts as a permitted accessory use subject to review and approval by the Zoning Administrator according to the following requirements.

(2) In the AG-1 and AG-2 zoning districts, an on-site ground mounted SES:

- i. Shall not occupy an area greater than one acre in size and shall comply with the minimum setback requirements for accessory buildings for the district in which it is located;
- ii. Shall not exceed a height of 10 feet above natural grade.

(3) In the R-1 zoning district, an on-site ground mounted SES:

- i. Shall be a minimum of 100 feet from any front lot line and shall not cover more than 25% of the front yard;
- ii. Shall comply with the minimum side and rear setback requirements for accessory buildings in the R-1 district;
- iii. Shall not cover more than 25% of the rear yard;
- iv. Shall not exceed a height of 10 feet above natural grade.

(4) In the General Commercial zoning district, an on-site ground mounted SES:

- i. Shall only be located in the rear yard and shall not cover more than 25% of the rear yard;
- ii. Shall comply with the minimum setback requirements for principal buildings;
- iii. Shall not exceed a height of 10 feet above natural grade.

(5) In the Light Industrial and I-96 Planned Unit Development zoning districts. An on-site ground mounted SES:

- i. Shall not occupy more than 25 percent of area of the parcel on which it is located;
- ii. Shall comply with the minimum setback requirements for principal buildings;
- iii. Shall not exceed a height of 10 feet above natural grade.

- (6) A building permit is required before installation of a ground mounted SES. Before the issuance of such permit an applicant for a SES shall submit an accurate sketch plan to the Township Zoning Administrator providing the location of the parcel containing the SES, location, size of the area and setbacks proposed for the SES, the height of the SES, and a data sheet and installation instructions from the equipment manufacturer and other information as requested by the Zoning Administrator. 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.

(f) Solar Farm Requirements

- (1) A solar farm as defined herein shall only be permitted within the Flood Hazard Overlay Zone of the R-1 Zoning District as described in the Lowell Charter Township Master Plan subject to review and approval of a Special Use Permit by the Planning Commission in accordance with the requirements and procedures of Chapter 20 and the requirements of Chapter 13 herein.
- (2) A solar farm must be a minimum of 20 acres. A parcel containing a solar farm shall not require frontage on a public street.

- (3) Setbacks. The solar energy system shall be setback a minimum of 50 feet from all property lines except solar panels shall not be placed closer than 100 from the lot line of another parcel containing a dwelling unit. The Planning Commission may require a greater setback to achieve compatibility with nearby land uses.
- (4) Height. A ground mounted SES shall not exceed a height of 14 feet above natural grade. The height shall be measured from the highest point of the panel when oriented at its maximum tilt to the ground immediately below the panel.
- (5) Safety/Access. A security fence shall be placed around the perimeter of the solar farm with a locked gate. Knox boxes and keys shall be provided at locked entrances for emergency personnel access. The height and material of the fence shall be as approved by the Planning Commission depending upon the location of the facility.
- (6) Electrical Interconnections. 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.
- (7) Permitting. Solar farms shall obtain all necessary permits from the United States Government, State of Michigan, and Lowell Charter Township. The applicant shall provide a copy of all required permits to the Township.
- (8) The portion of the premises on which the array of collector panel structures is located shall not be paved with asphalt or any other surface material that is impervious to rainwater.
- (9) The Planning Commission may establish a landscaping requirement if it is determined that a buffer for existing land use is necessary. Any landscaping shall be installed along all right of way lines of the parcel containing a solar farm. Any screening comprised of trees shall contain a minimum of one deciduous or conifer tree for every 50 feet of property line length. Trees shall be a minimum of four feet tall when planted and remain in good condition for the life of the project. Landscaping berms or other screening methods may be used as approved by Planning Commission upon review.
- (10) Use of above ground transmission lines for the SES shall be prohibited within the site.
- (11) Every SES must be kept and maintained in good repair and condition at all times and shall not pose a potential safety hazard. The applicant shall provide a written description of the maintenance program to be used to maintain the SES.
- (12) Application Requirements. In addition to the site plan required by Chapter 21 of this Ordinance, the applicant shall provide all the following information to the Township:
 - i. Proof of a lease, deed, or purchase agreement for the parcel for the proposed solar farm.
 - ii. Type of solar panel to be used and any hazardous chemicals contained in the solar panels and measures to prevent leakage.

- iii. Name and address of the manufacturer, and model of the solar panels.
- iv. Expected energy output and anticipated useful life of the system, development phases, and possible future expansions.
- v. Information on the visual impact of the proposed solar farm using photos or computer-generated images of the project on the site to demonstrate the appearance of the project from off site.
- vi. Maintenance and construction schedule. The applicant shall provide a written description of the maintenance program to be used to maintain the solar farm, and the anticipated construction schedule.
- vii. Digital versions of all planning and construction documents required pursuant to Chapter 21, 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.
- viii. A decommissioning plan as required by Section 4.30 (f) (13) herein.
- ix. Distance from the proposed solar farm to the nearest habitable dwelling unit on a parcel which does not contain the solar farm.
- x. A security plan detailing on-site security provisions which may include fencing, security guards, video surveillance, and similar measures.
- xi. A landscaping plan illustrating the number, size, type and spacing of trees proposed to screen the solar farm from nearby roadways.
- xii. All information required by Chapter 13 pertaining to construction within the Flood Hazard Overlay Zone
- xiii. Additional information as required by Chapter 21 of this Ordinance, or as may be required by the Planning Commission.
- xiii. The Planning Commission may waive or modify some of the above requirements at the request of the applicant if the Commission determines that those items would not be needed to properly review the project.

(13) Decommissioning:

The applicant shall submit a decommissioning plan to the Township which shall address all the following:

- i. Defined conditions upon which decommissioning will be initiated (i.e., end of land lease, no power production for twelve 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 to a depth of three feet below grade.

iv. Restoration of property to the condition prior to development of the solar farm including measures to ensure that soils are not contaminated during decommissioning.

v. The timeframe for completion of decommissioning activities.

vi. An engineer's cost estimate for all aspects of the decommissioning plan.

vii. Description of any 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 may require that the owner or operator provide a financial guarantee to cover the costs of decommissioning the site in accordance with Section 4.30 (f)(14)

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

i. For each solar energy system, the applicant/owner/operator shall determine an amount of money equal to the estimated removal and restoration cost. The Planning Commission may require independent verification of the adequacy of this amount.

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

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

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

ARTICLE 2. Severability. Should any portion of this Ordinance /ordinance amendment be declared by a court of competent jurisdiction to be invalid or unconstitutional, that shall not affect the balance of this Ordinance/ordinance amendment, which shall remain in full force and effect.

ARTICLE 3. Effective Date. This Ordinance/ordinance amendment shall become effective seven days after its publication or seven days after the publication of a summary of its provisions in a local newspaper of general circulation.

AYES: Hale, Benedict, Burt, Anderson, Blough, Thompson, Vanderziel

NAYS: None

ABSENT: None

ABSTAIN: None

ORDINANCE DECLARED ADOPTED

A handwritten signature in blue ink that reads "Monica Burt". The signature is written in a cursive style and is positioned above a horizontal line.

Monica Burt, Township Clerk

ADOPTED DATE: AUGUST 15, 2022

PUBLICATION DATE: AUGUST 24, 2022

EFFECTIVE DATE: AUGUST 31, 2022

I hereby certify that the foregoing is a true and complete copy of an ordinance adopted by the Township Board of the Charter Township of Lowell at a regular meeting held on the date first stated above, and I further certify that public notice of such meeting was given as provided by law.

Monica Burt, Township Clerk