ORDINANCE 2021-23

SOLAR ENERGY ORDINANCE

AN ORDINANCE GOVERNING THE ESTABLISHMENT OF SOLAR ENERGY DEVELOPMENTS IN THE UNINCORPORATED TERRITORY OF MASON COUNTY

BE IT ORDAINED BY THE COUNTY BOARD OF THE MASON COUNTY, ILLINOIS, as follows:

Section 1. The Mason County Solar Energy Ordinance is hereby adopted which shall read as follows:

"SOLAR ENERGY CODE

I. PURPOSE

The purpose of this Ordinance is to facilitate the construction, installation, and operation of Solar Energy Systems in the unincorporated areas of the county in a manner that promotes economic development and ensures the protection of health, safety, and welfare while also avoiding adverse impacts on adjoining property or on the environment. This Ordinance is not intended to abridge safety, health or environmental requirements contained in other applicable codes, standards, or ordinances.

II. DEFINITIONS

For the purpose of this Ordinance, the following definitions are adopted:

ACCESSORY. As applied to a building, structure, or use, one which is on the same lot with, incidental to and subordinate to the main or principal structure or use and which is used for purposes customarily incidental to the main or principal structure, or the main or principal use.

BUILDING INTEGRATED SOLAR ENERGY SYSTEM. A solar energy system that integrates photovoltaic modules into the building structure as the roof or facade and which does not alter the relief of the roof.

COMMERCIAL/LARGE SCALE SOLAR FARM. A utility scale commercial facility that converts sunlight to electricity, whether by photovoltaics, concentrating solar thermal devices, or various experimental technologies for onsite or offsite use with the primary purpose of selling wholesale or retail generated electricity.

COMMUNITY SOLAR GARDEN. A community solar-electric (photovoltaic) array, of no more than five (5) acres in size, that provides retail electric power (or financial proxy for retail power) to multiple households or businesses residing in or located off-site from the location of the solar energy system.

GROUND MOUNT SOLAR ENERGY SYSTEM. A solar energy system that is directly installed onto the ground and is not attached or affixed to an existing structure.

PHOTOVOLTAIC SYSTEM. A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells, that generate electricity whenever light strikes them.

QUALIFIED SOLAR INSTALLER. A trained and qualified electrical professional who has the skills and knowledge related to the construction and operation of solar electrical equipment and installations and has received safety training on the hazards involved.

ROOF MOUNT SOLAR ENERGY SYSTEM. A solar energy system in which solar panels are mounted on top of a building roof as either a flush mounted system or as modules fixed to frames which can be tilted toward the south at an optimal angle.

SOLAR COLLECTOR. A device, structure or part of a device or structure for which the primary purpose is to transform solar radiant energy into thermal, mechanical, chemical or electrical energy.

SOLAR ENERGY. Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

SOLAR ENERGY SYSTEM (SES). The components and subsystems required to convert solar energy into electric or thermal energy suitable for use. The area of the system includes all the land inside the perimeter of the system, which extends to any fencing. The term applies, but is not limited to, solar photovoltaic systems, solar thermal systems and solar hot water systems.

SOLAR STORAGE BATTERY/UNIT. A component of a solar energy device that is used to store solar generated electricity or heat for later use.

SOLAR THERMAL SYSTEMS. Solar thermal systems that 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.

III. GROUND MOUNT AND ROOF MOUNT SOLAR ENERGY SYSTEMS

A. Roof Mount Solar Energy Systems designed to serve only the occupants of the parcel on which they are located and placed on the roof of a principal structure or a permitted accessory structure shall not require a special use permit. Such systems are accessory structures allowed only on zoning lots with a principal structure. Ground Mount Solar Energy Systems shall not be permitted except in Agricultural Districts as set forth in Paragraph 15 below. An application shall be submitted to the Code Enforcement Officer demonstrating compliance with all applicable provisions of the Zoning Code and with the following requirements:

1. Height:

   a. Roof mount solar energy systems placed on a principal structure shall not exceed the height of the principal structure on the zoning lot where the system is located.

b. Roof mount solar energy systems placed on an accessory structure shall not exceed the height of the accessory structure on the zoning lot where the system is located.

2. Mounting on Pitched Roofs: Roof mount solar energy systems on pitched roofs shall not be permitted to tilt or rotate at a slope greater or less than the roof to which it is attached. Such roof mount solar energy systems cannot extend more than eight inches (8") from the roof surface to which it is attached.

3. Mounting on Flat Roofs: Roof mount solar energy systems on flat roofs on residential or non-residential structures shall not extend more than two feet (2') vertically or extend above the building parapet, whichever is less.

4. Setback: The collector surface and mounting devises for roof mount systems shall not extend beyond the exterior perimeter of the building on which the system is mounted or built. Exterior piping for solar systems generating heated water may extend beyond the perimeter of the building on a side yard exposure.

5. Roof Coverage: Roof mount solar energy systems shall be designed and installed in such a manner that the structure will support the roof, as well as all components of the solar energy system, taking into account the potential snow load and wind variations. Roof access and pathways for fire fighter and public safety access shall be provided with at least one 36 inch minimum pathway from the lowest roof edge for access to the roof ridge. A clear setback of at least 18 inches shall be provided on both sides of a horizontal ridge. Pathways and setbacks shall be capable of supporting fire fighters accessing the roof and shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment. The roof shall be considered a part of a building completely covering and permanently attached to such building and can be flat or pitched. Any roof that has a pitch of more than 1.5 inches in 12 inches shall be considered a separate roof side.

6. Reflection Angles: Reflection angles for solar collectors shall be oriented such that they do not project glare onto adjacent properties.

7. Visibility: Solar energy systems shall be located in a manner to reasonably minimize view blockage for surrounding properties and shading of property to the north while still providing-adequate solar access for collectors. They shall be designed to blend into the architecture of the building or be screened from routine view from public rights-of-way provided that the screening shall not affect the operation of the system.

8. Color: Roof mount solar energy systems shall match, as closely as possible, the color of the roof to which it is attached.

9. Safety: Roof mount solar energy systems, excluding building integrated systems, shall allow for adequate roof access for firefighting purposes to the south facing or flat roof upon which the panels are mounted. Panels, modules or other components of a roof mount system shall not be placed on the portion of the roof that is below an emergency escape and rescue opening, and a 36 inch wide pathway shall be provided to such opening.

10. Approved Solar Components: Electric solar energy system components shall have a UL listing or approved equivalent and solar hot water systems shall have an SRCC rating.

11. Compliance with Building Codes: All solar energy systems shall meet approval of any currently adopted International Building Code, National Electric Code, and Illinois Plumbing Code.

12. Utility Notification: All grid-intertie solar energy systems shall comply with the interconnection requirements of the electric utility. Off-grid systems are exempt from this requirement.

13. Restrictions on Solar Energy Systems Limited: Consistent with 765 ILCS 165, no homeowner's agreements, covenants, common interest community or other contracts between multiple property owners within a subdivision shall prohibit or restrict homeowners from installing solar energy systems.

14. Historic Buildings: Solar energy systems on designated historic landmarks or within designated historic districts must receive approval of the Historic Preservation Commission, consistent with the standards for solar energy systems on historically designated buildings published by the U.S. Department of Interior.

15. Ground Mounted Solar energy systems are permitted in Agricultural Districts on parcels of 3 acres or more provided such systems are associated with and connected to a primary residential structure. Such system shall be located in a side or rear yard only and may be no closer to a property line than 30 feet.

IV. BUILDING INTEGRATED SOLAR ENERGY SYSTEMS

Building Integrated Solar Energy Systems shall be permitted in all Zoning Districts in the unincorporated area of the county with a Special Use Permit and shall meet the requirements of all applicable provisions of the Zoning Code, including the currently adopted International Building Code.

V. COMMUNITY SOLAR GARDENS

Community Solar Gardens are allowed as a Special Use in all zoning districts subject to the following requirements:

A. Community Solar Gardens may be located on rooftops.

B. An interconnection agreement must be completed with the electric utility in whose service the territory the system is located.

C. Dimensional Standards: All solar garden related structures in newly platted and existing subdivisions shall comply with the principal structure setback, height, and coverage limitations for the district in which the system is located.

D. Other Standards:

1. Ground Mount Systems shall comply with all required standards for structures in the zoning district in which the system is located.

2. All solar gardens shall comply with the currently adopted International Building Code.

3. All solar gardens shall comply with all other State requirements.

VI. COMMERCIAL/LARGE SCALE SOLAR FARM

Commercial/Large Scale Solar Farms may be allowed by Special Use in the A-Agriculture and M1 and M2 Industrial Districts. The following information shall also be submitted as part of an application for a Commercial/Large Scale Solar Farm:

A. A site plan with existing conditions showing the following:

1. Existing property lines and property lines extending one hundred (1 00) feet from the exterior boundaries including the names of adjacent property owners and the current use of those properties.

2. All routes that will be used for the construction and maintenance purposes shall be identified on the site plan. All routes for either egress or ingress shall be shown.

3. Location and size of any abandoned wells, sewage treatment systems and irrigation systems.

4. Existing buildings and impervious surfaces.

5. Upon request of the County, a contour map showing topography at two (2) foot intervals. A contour map of surrounding properties may also be required.

6. Existing vegetation (list type and percent of coverage: i.e. cropland/plowed fields, grassland, wooded areas, etc.)

7. Any delineated wetland boundaries.

8. A copy of the current FEMA FIRM maps that shows the subject property including the one hundred (100)-year floor elevation and any regulated flood protection elevation, if available.

9. Surface water drainage patterns.

10. The location of any subsurface drainage tiles or underground utilities.

11. Location and spacing of the solar collector.

12. Location of underground and overhead electric lines connecting the solar farm to a building, substation or other electric load.

13. New electrical equipment other than at the existing building or substations that is to be the connection point for the solar farm.

B. A site plan with proposed conditions showing the following:

1. Location and spacing of the solar panels.

2. Location of access roads.

3. Location of underground or overhead electric lines connecting the solar farm to a building, substation, or other electric load.

4. New electrical equipment other than at the existing building or substation that is to be the connection point for the solar farm.

C. Fencing and Weed/Grass Control

1. An acceptable weed/grass control plan for property inside and outside the fenced area for the entire property shall be submitted. The applicant and any successor shall during the operation of the Solar Farm adhere to the weed/grass control plan.

2. Perimeter fencing shall be installed around the boundary of the solar farm having a minimum height of six (6) feet and a maximum height of eight (8) feet. The fence shall contain appropriate warning signage that is posted such that it is clearly visible on the site.

3. The applicant shall maintain the fence in good condition.

D. Manufacturer's Specifications: The manufacturer's specifications and recommended installation methods for all major equipment, including solar panels/collectors, mounting systems, and foundations for poles and racks.

E. Connection and Interconnection

1. A description of the method of connecting the solar array to a building or substation.

2. Utility interconnection details and a copy of written notification to the utility company requesting the proposed interconnection.

F. Setbacks: A minimum of fifty (50) feet must be maintained from all property lines. Solar panels shall be kept at least five hundred (500) feet from a residence that is not part of the parcel on which the facility is located or is owned by a different party.

G. Fire Protection: A fire protection plan for the construction and the operation of the facility, and emergency access to the site.

H. Endangered Species and Wetlands: Solar Farm developers shall be required to initiate a natural resource review consultation with the Illinois Department of Natural Resources (IDNR) through the Department's online EcoCat Program or any successor program. Areas reviewed through this process will be endangered species and wetlands. The cost of the EcoCat consultation shall be borne by the developer.

I. Road Use Agreements: All routes that will be used for the construction and maintenance purposes shall be identified on the site plan. All routes for either egress or ingress need to be shown. The routing shall be subject to the approval of the County Engineer. The Solar Farm Developer shall complete and provide a preconstruction baseline survey to determine existing road conditions for assessing potential future damage due to development related traffic. The developer shall provide a road repair plan to ameliorate any and all damage, installation, or replacement of roads that might be required by the developer, and such plan shall be approved by the County Engineer. The developer shall provide a letter of credit or surety bond in an amount and form approved by the Chairman of the County Board or his designee when warranted.

J. Stormwater: Solar farms shall be constructed in such a manner that additional storm water accumulations are not created.

K. Decommissioning of the Solar Farm

1. The Developer shall provide a decommissioning plan for the anticipated service life of the facility or in the event the facility is abandoned or has reached its life expectancy. If the solar farm is out of service or not producing electrical energy for a period of twelve (12) months, it will be deemed nonoperational and decommissioning and removal of that facility shall commence according to the decommissioning plan as provided and approved. A cost estimate for the decommissioning of the facility shall be prepared by a professional engineer or contractor who has expertise in the removal of the solar farm. The decommissioning cost estimate shall explicitly detail the cost before considering any projected salvage value of the out of service solar farm. A restoration plan shall also be provided for the site with the application. The decommissioning plan shall include the following:

2. Removal of the following within six (6) months after the farm became non-operational:

   a. All solar collectors and components, above ground improvements and outside storage.

   b. Foundations, pads and underground electrical wires and reclaim site to a depth of four (4) feet below the surface of the ground.

   c. Hazardous material from the property and dispose in accordance with Federal and State law.

3. The decommissioning plan shall also include an agreement between the applicant and the County that:

   a. The financial resources for decommissioning shall be secured by a Surety Bond, or cash deposited in an escrow account with an escrow agent acceptable to the Chairman of the County Board or his designee.

   b. The agreement shall establish conditions in which the funds will be disbursed.

   c. The County shall have access to the security for the purpose of completing decommissioning if decommissioning is not completed by the owner of the project within six (6) months of the end of project life or facility abandonment.

   d. The County shall have the right to enter the site, pursuant to reasonable notice to effect or complete decommissioning.

   e. The County shall have the right to seek injunctive relief to effect or complete decommissioning, and to seek reimbursement from the owner for decommissioning costs in excess of the amount deposited in escrow and to file a lien against any real estate owned by applicant or applicant's successor, or in which they have an interest, for the amount of the excess, and to take all steps allowed by law to enforce said lien.

VII. COMPLIANCE WITH BUILDING CODE

All solar energy systems shall require a permit from the Code Enforcement Officer and shall comply with any other applicable provisions of County Ordinances, State law, or Federal law.

VIII. LIABILITY INSURANCE

The owner operator of the solar farm shall maintain a current general liability policy covering bodily injury and property damage and name the County as an additional insured with limits of at least one million dollars ($1,000,000.00) per occurrence and five million dollars ($5,000.000.00) in the aggregate with a deductible of no more than five thousand dollars ($5,000.00).

IX. ADMINISTRATION AND ENFORCEMENT

The Code Enforcement Officer shall enforce the provisions of this Ordinance through inspections on such schedule as he deems appropriate. The representatives of the county shall have the authority to enter upon the premises where a solar energy system is located at any time by coordinating a reasonable time with the operator/owner of the facility. Any person, firm or cooperation who violates, disobeys, omits, neglects, refuses to comply with, or resists enforcement of any of the provisions of this Ordinance shall be subject to the general penalty provisions of the County Zoning Code.

X. BUILDING PERMIT FEES

The fees for processing the applications for solar energy systems shall be as follows:

0-4 kilowatts (kW-de) all residential	$75.00
5-10 kilowatts (kW-de)	$150.00
11-50 kilowatts (kW-de)	$300.00
51-100 kilowatts (kW-de)	$500.00
101-500 kilowatts (kW-de)	$1,000.00
501-1000 kilowatts (kW-dc)	$3,000.00
1001-2000 kilowatts (kW-de)	$5,000.00

Section 2. That this ordinance shall be in full force and effect from and after its passage, approval, and publication as provided by law.

Section 3. That all ordinances or parts thereof in conflict herewith are hereby expressly repealed.

APPROVED AND ADOPTED by the County Board of Mason County this 11th day of May, 2021.

Kenneth Walker

KENNETH WALKER, Chairman

ATTEST:

Summer R Brown

SUMMER R. BROWN, County Clerk