

**CASS
COUNTY
SOLAR ENERGY SYSTEMS
ZONING ORDINANCE**

ADOPTED DATE :

**CASS COUNTY, ILLINIOS ZONING
SOLAR ENERGY SYSTEMS
SECTION 16.5**

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SECTION 16.5

CASS COUNTY SOLAR ENERGY SYSTEMS ORDINANCE

CASS 16.5-1 (a) Purpose.

The purpose of this ordinance is to facilitate the construction, installation, and operation of Solar Energy Systems (SES) in CASS County in a manner that promotes economic development and ensures the protection of health, safety, and welfare while also avoiding material adverse impacts to important areas such as agricultural lands, endangered species habitats, conservation lands, and other sensitive lands. It is the intent of this ordinance to encourage the development of SESs that reduce reliance on foreign and out-of-state energy resources, bolster local economic development and job creation. This ordinance is not intended to abridge safety, health or environmental requirements contained in other applicable codes, standards, or ordinances. The provisions of this ordinance shall not be deemed to nullify any provisions of local, state or federal law.

CASS 16.5-2 (b) Definitions.

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 PHOTOVOLTAIC SYSTEMS: A solar energy system that consists of integrating photovoltaic modules into the building structure as the roof or façade and which does not alter the relief of the roof.

COLLECTIVE SOLAR: Solar installations owned collectively through subdivision homeowner associations, college student groups, or other similar arrangements.

COMMERCIAL/LARGE SCALE SOLAR ENERGY SYSTEM (CSES): 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. **A Commercial/Large Scale solar system may be either an accessory or principal use.**

COMMUNITY SOLAR GARDEN: A community solar-electric (photovoltaic) array, and is owned by multiple community members 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. **A community solar system may be either an accessory or principal use.**

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

NET METERING: A billing arrangement that allows solar customers to get credit for excess electricity that they generate and deliver back to the grid so that they only pay for their net electricity usage at the end of the month.

OPERATING COMPANY: The entity that develops, owns or operates a SES and its successors and assigns.

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: 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 optical angle.

SOLAR ACCESS: Unobstructed access to direct sunlight on a lot or building through the entire year, including access across adjacent parcel air rights, for the purpose of capturing direct sunlight to operate a solar energy system.

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 and transmittal of this energy to the end user or electric grid. 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 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.

CASS 16.5-3 (c) Ground Mount and Roof Mount (SES) Permitted as an Accessory Use.

Ground Mount and Roof Mount (SES) except for CSES shall be permitted by a building permit in all zoning districts where there is a principal structure. An application shall be submitted to the County Zoning Administrator demonstrating compliance with the Cass County Zoning Ordinances in addition to the following requirements below:

(1) Height:

- i. Building or roof mounted solar energy systems shall not exceed the maximum allowed height for principal structures in any zoning district.
- ii. Ground or pole-mounted solar energy systems shall not exceed 20 feet in height which oriented at maximum tilt.
- iii. Ground mounted solar energy systems may be placed in the front yard, but shall not exceed 30 inches above grade.

(2) Setbacks:

- i. Ground mounted solar energy systems shall meet the accessory structure setbacks for the zoning district in which the unit is located.

- ii. Ground mounted solar energy systems shall not extend beyond the side yard or rear yard setback when oriented at minimum design tilt.
 - iii. In addition to building setbacks the collector surface and mounting devices for roof mounted systems shall not extend beyond the exterior perimeter of the building on which the systems is mounted or built, unless the collector or mounting system has been engineered to safely extend beyond the edge, and setback requirements are not violated. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building on a side yard exposure.
- (3) Reflection Angles. Reflection angles for solar collectors shall be oriented such that they do not project glare onto adjacent properties.
- (4) Aviation Protection.
- i. For solar units located within 500 feet of an airport or within approach zones of an airport, the applicant shall complete and provide the results of the Solar Glaze Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, FAA Review of Solar Energy Projects on Federal Obligated Airports, or most recent version adopted by the FAA.
- (5) Visibility:
- i. 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.
- (6) Safety:
- i. Roof or building mounted 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.
 - ii. Roof or building mounted solar energy systems shall meet the requirements of all Cass County Building and Property Maintenance Codes.
 - ii. All solar energy systems shall be performed by a qualified solar installer.
 - iii. Any connection to the public utility grid shall be inspected by the appropriate public utility.
 - iv. All solar energy systems shall be maintained and kept in good working order. If it is determined by the Community Development Administrator that a solar energy system is not being maintained, kept in good working order, or is no longer being utilized to perform its intended use for 6 consecutive months, the property owner shall be given 30 day notice for removal of the unit and all equipment. If the solar energy system is not removed within 30 days the Zoning Administrator shall issue a Notice of Violation.
- (7) Approved Solar Components:

- i. Electric Solar energy system components shall have a UL listing or approved equivalent and solar hot water systems shall have an SRCC rating.
- (8) Restrictions on Solar Energy Systems Limited. Consistent with 765 ILCS 165/ no homeowner's agreement, covenant, common interest community or other contracts between multiple property owners within a subdivision of unincorporated Cass County shall prohibit or restrict homeowners from installing solar energy systems.

CASS 16.5-4 (d) Building Integrated Systems. Building Integrated Systems shall be permitted outright in all Zoning Districts but shall meet the requirements of all Cass County Building and Property Maintenance Codes.

CASS 16.5-5 (e) Community Solar Gardens Development of Community Solar Gardens is permitted by Special Use in all zoning districts and shall also comply with the application submittal detailed in CASS 16.5-6(f) in addition to the following requirements:

- (1) Rooftop Gardens Permitted. Rooftop gardens are permitted in all zoning districts where buildings are permitted.
- (2) Ground Mount Gardens. Ground mount community solar energy systems require a Special Use in all districts.
- (3) Interconnection. An interconnection agreement must be completed with the electric utility in whose service the territory the system is located.
- (4) Dimensional Standards.
 - i. All solar garden related structures in newly platted and existing platted subdivisions shall comply with the principal structure setback, height, and coverage limitations for the district in which the system is located.
- (5) Aviation Protection.
 - i. For solar units located within 500 feet of an airport or within approach zones of an airport, the applicant shall complete and provide the results of the Solar Glaze Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, FAA Review of Solar Energy Projects on Federal Obligated Airports, or most recent version adopted by the FAA.
- (6) Other Standards.
 - i. Ground Mount Systems shall comply with all required standards for structures in the district in which the system is located.
 - ii. All solar gardens shall comply with the all Cass County Building and Maintenance Codes.
 - iii. All solar gardens shall comply with the Special Use provisions of the Cass County Zoning Code.

- iv. All solar gardens shall also comply with all other State and Local requirements.

CASS 16.5-6 (f) Commercial/Large Scale Solar System (CSES). Ground Mount solar energy systems that are not Community Solar Gardens designed for providing energy to off-site uses or export to the wholesale market require a Special Use in the Agriculture Districts, the Conservation District and Industrial Districts and shall comply with all applicable provisions of the Cass County Zoning Code. In addition to any fees charged to apply for a Special Use under the Cass County Zoning Code, the applicant will pay a non-refundable \$1,000 hearing fee and reimburse the cost of a court reporter at the hearing on the Special Use. The following information shall also be submitted as part of the application for Special Use:

- (1) A site plan with existing conditions showing the following;
 - i. Ownership information for the proposed development, existing property lines and property lines extending one hundred feet from the exterior boundaries including the names of adjacent property owners and the current use of those properties.
 - ii. Existing public and private roads, showing widths of the road and any associated easements.
 - iii. Location and size of any abandoned wells, sewage treatment systems.
 - iv. Existing buildings and impervious surfaces.
 - v. A contour map showing topography at two (2) foot intervals. A contour map of surrounding properties may also be required.
 - vi. Existing vegetation (list type and percent of coverage: i.e. cropland/plowed fields, grassland, wooded areas, etc.)
 - vii. Any delineated wetland boundaries.
 - viii. A copy of the current FEMA FIRM maps that shows the subject property including the one-hundred-year floor elevation and any regulated flood protection elevation, if available.
 - ix. Surface water drainage patterns.
 - x. The location of any subsurface drainage tiles to the extent known.
- (2). A conceptual site plan of proposed conditions showing the following which will not be significantly altered prior to submitting for a building permit:
 - i. Location and spacing of the solar panels
 - ii. Location of access roads.
 - iii. Location of underground or overhead electric lines connecting the CSES to a building, substation or other electric load
 - iv. New electrical equipment other than at the existing building or substation that is to be the connection point for the CSES

- v. A statement as to the tax parcels impacted by the development and the projected responsibility for payment of ad valorem real property taxes during the life of the project.
- (3) Fencing and Weed/Grass Control
- i. The applicant shall submit an acceptable weed/grass control, pollinator friendly plan for property inside and outside the fenced area for the entire property impacted by SES construction (“Vegetation Plan”). The Operating Company during the operation of the CSES shall adhere to this Vegetation Plan.
 - ii. Perimeter fencing having a maximum height of eight (8) feet shall be installed around the boundary of the CSES. The fence shall contain appropriate warning signage that is posted such that it is clearly visible on the property.
 - iii. The Operating Company shall maintain the fence and adhere to the Vegetation Plan. If the Operating Company does not adhere to the proposed plan a fine of \$500 per week will be assessed until the Operating Company complies with the Vegetation Plan and fencing requirements of the Ordinance and as approved as a part of the special use permit.
- (4) Manufacturer’s Specifications
- 1. The manufacturer’s specifications ratings and recommended installation methods for all major equipment, including solar panels, mounting systems and foundations for poles and racks. If the specific manufacturer for any of the foregoing has not been decided, multiple manufacturer specifications being considered for the project may be submitted as alternatives.,
- (5) Connection and Interconnection
- i. A description of the method of connecting the SES to a building or substation.
 - ii. Utility interconnection details that are available to the applicant and can be publicly released (such as the queue number) and a copy of written notification to the utility company requesting the proposed interconnection (which may redact information not related to the physical construction of the project).
- (6) Setbacks and Yards
- i. Solar panels shall be setback a minimum of fifty (50) feet from all property lines of property that is not a part of the special use permit application. Solar panels shall be kept at least one hundred (100) feet from a principal residential dwelling that is not part of the Special Use permit.
 - ii. Yard or lot coverage limits shall not apply to the solar panel installations of a CSES, however, the County may establish reasonable setbacks and drainage accommodations as may be necessary to prevent erosion and

negative impacts to neighboring properties. as a part of any Special Use permit issued.

- iii. Where a CSES is located within a Drainage District, Solar Panels will be set back at least two hundred forty (240) feet from any drainage structure under the jurisdiction of the Drainage District. This setback may be reduced upon request of the petitioner and agreement with the Drainage District.

(7) Aviation Protection.

- i. For CSES located within five hundred (500) feet of an airport or within approach zones of an airport which are regulated by the Federal Aviation Administration (“FAA”), the applicant shall complete and provide the results of the Solar Glaze Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, FAA Review of Solar Energy Projects on Federal Obligated Airports, or most recent version adopted by the FAA.

(8) Fire Protection

- i. A fire protection plan for the construction and the operation of the CSES, and emergency access to the site.

(9) Natural Resources.

- i. Applicants for a CSES special use permit 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. Areas reviewed through this process will be endangered species and wetlands. The cost of the EcoCat consultation shall be borne by the applicant.
- ii. Where applicable under State law, applicants for a CSES special use permit will also complete and enter into an Agricultural Impact Mitigation Agreement AIMA for the project.

(10) Road Use Agreements.

- i. All routes on either County or Township Road that are expected to be used for CSES construction and maintenance purposes shall be identified on the site plan. All routes for either egress or ingress need to be shown. The routing of overweight and oversize loads shall be approved subject to the approval of the Cass County Highway Engineer in coordination with the Township Road Commissioners. If deemed necessary by the County during the special use permit process due to the weight and frequency of loads and/or seasonal or permanent weight limit ratings of the roads, the Operating Company shall (1) complete and provide a preconstruction baseline survey to determine existing road conditions for assessing potential future damage caused by CSES construction traffic; (2) provide a road repair plan to ameliorate any and all damage caused by CSES construction, provide for installation or replacement of roads that might be required by the Operating Company; (3) provide a surety bond in a amount and form approved by the Highway Engineer in coordination with the Township Road Commissioners when warranted as estimated to cover

the reasonable costs of repairs of roads from damage caused by CSES construction.

(11) Decommissioning of the CSES.

- i. In addition to any terms required by an applicable AIMA, The applicant shall provide a decommissioning plan with the County for removal of the CSES and restoration of the property on which it is located after the anticipated service life of the facility or in the event the facility is abandoned or had reached its life expectancy. If the CSES is out of service or not producing electrical energy for a period of twelve (12) months or the taxes for the property (the underlying property or the system itself) have remained unpaid and are sold at tax sale, it will be deemed nonoperational and decommissioning and removal of that facility will need to 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 CSES. The decommissioning cost estimate shall explicitly detail the cost considering any projected salvage value of the out of service CSES components. The decommissioning cost shall be made by a cash, surety bond or irrevocable letter of credit before construction commences. The restoration plan included with the decommissioning plan shall be provided for the site with the application and will provide for the restoration of the property as nearly as possible to its condition prior to the installation of the CSES. The decommissioning plan shall have the following provided:

(1). Removal of the following within six (6) months after a determination that the CSES is no longer operational:

- a. All solar collectors and components, aboveground improvements and outside storage.
- b. Foundations, pads and underground electrical wires to a depth of four (4) feet below the surface of the ground.
- c. Hazardous material from the CSES disposed in accordance with Federal and State law and cleanup of any contamination of the property caused by the CSES.

(2) The decommissioning plan shall also recite an agreement between the applicant and the County that:

- a. The financial resources for decommissioning shall be in the form of an irrevocable letter of credit, Surety Bond, or shall be deposited in an escrow account with an escrow agent acceptable to the Community Development Administrator.
- b. Were the security provided is the direct deposit of funds, a written escrow agreement will be prepared , establishing upon what conditions the funds will be disbursed.
- c. The County shall have access to the escrow account funds or other financial security for the expressed purpose of

completing decommissioning if decommissioning is not completed by the Operating Company pursuant to the decommissioning plan within six (6) months of the end operations, or the end of the project life or facility abandonment.

- d. The County is granted the right of entry onto the site, pursuant to reasonable notice, to effect or complete decommissioning.
- e. The County is granted the right to seek injunctive relief to effect or complete decommissioning, as well as the County's right to seek reimbursement from Operating Company for decommissioning costs in excess of the amount deposited in escrow and to file a lien against any real estate owned by Operating Company, or in which it has an interest, for the amount of the excess, and to take all steps allowed by law to enforce said lien.
- f. Financial provisions shall not be so onerous as to make solar power projects unfeasible.
- g. The amount of security provided in any decommissioning plan will be reviewed by the County and Operating Company every 5 years and adjusted as necessary to ensure sufficient resources are available to decommission the project.

(3) The decommissioning plan will also provide for correction of ruts and compaction in the soil, and soil amendments as necessary to restore the productivity of land on which the project was located.

CASS 16.5-7 (g) Compliance with Building Code. All solar energy systems shall comply with all Cass County Building and Maintenance Codes as well as all Federal and State requirements. A final site plan will be presented to the County upon application for the project's building permit. In the event the solar panel height, layout, lot coverage or other information provided in the application for special use permit varies substantially from that approved as provided herein, pursuant to this, an amendment shall be required to the Special Use Permit.

CASS 16.5-8 (h) Liability Insurance. The Operating Company shall maintain a current general liability policy covering bodily injury and property damage and name Cass County as an additional insured with limits of at least one million dollars (\$1,000,000.00) per occurrence and two million (\$2,000,000.00) in the aggregate with a deductible of no more than five thousand dollars (\$5,000.00). The amount of insurance required will be reviewed every 10 years by the County to determine its sufficiency.

CASS 16.5-9 (i) Administration and Enforcement. The Cass County Zoning Administrator is hereby granted the power and authority to enter upon the premises of the CSES at any time by coordinating a reasonable time with the Operating Company. Any person, firm or cooperation who violates, disobeys, omits, neglects, refuses to comply with, or resists enforcement of any of the provisions of this section may face fines of not less than twenty-five (\$25.00) nor more than five hundred (\$500.00) for each offense.

CASS 16.5-10 (j) Fees charged for Building Permits. The fees for processing the applications for building permits and mechanical permits shall be collected by the Cass County Zoning Administrator who shall be accountable to the County for such fees as follows:

- i. For systems under one (1) Megawatt DC, \$100;
- ii. For systems one (1) Megawatt and larger, \$250 per Megawatt DC