

Chapter 17.54

Solar Energy Systems

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§17.54.010 Purpose. The purpose of this Chapter is to facilitate the construction, installation, and operation of Solar Energy Systems (SES) in the Village in a manner that promotes economic development and ensures the protection of health, safety, and welfare while also avoiding adverse impacts to important areas such as agricultural lands, endangered species habitats, conservation lands, and other sensitive lands. It is the intent of this Chapter 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 Chapter is not intended to abridge safety, health or environmental requirements contained in other applicable codes, standards, or ordinances. The provisions of this Chapter shall not be deemed to nullify any provisions of local, state, or federal law.

§17.54.020 Definitions. Unless otherwise expressly stated, for the purposes of this title, the following terms, phrases, words, and their derivations, shall have the meanings indicated in this Section:

“Accessory” means 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.

“Collective Solar” means solar installations owned collectively through subdivision homeowner associations, college student groups, or other similar arrangements.

“Ground Mount Solar Energy System” means a solar energy system that is directly installed into the ground and is not attached or affixed to an existing structure. Ground

mounted solar collectors and supplementary solar energy equipment that is accessory to a residential or nonresidential use and covers an area no more than two (2) acres. In no instance can private solar be the only use on a parcel. Private solar is designed for onsite use by the owner or tenant of the residential or nonresidential use to reduce payments to the utility company. All ground mounted solar energy systems must be no glare panels to avoid distractions to adjacent landowners.

“Roof Mount” means 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” means 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” means 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” means radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

“Solar Energy Generation Facility/Large Scale Solar Farm” means 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. All solar farms must have no glare panels to avoid distractions to adjacent landowners.

“Solar Energy System (SES)” means 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.

§17.54.030 Ground Mount and Roof Mount (SES). Roof Mount (SES) shall be permitted by a building permit in all zoning districts where there is a principal structure. An application shall be submitted to the Zoning Officer demonstrating compliance with the Village’s Zoning Ordinance and in addition to the following requirements below: Ground Mount systems could be allowed in side yards and rear yards only within the Village after the variance process has been followed. An application shall be submitted to the Zoning Officer. It is the purpose of this Chapter to regulate the siting and installation of ground mounted solar energy equipment. The promotion of safe, effective, and efficient use of ground mounted solar energy equipment will be balanced against the need to preserve and protect public health and safety.

Types of ground mounted solar energy equipment:

- A. Solar Private – Solar Private is a permitted accessory use in any zoning district and must abide by the bulk regulations, density and dimensional standards of the underlying zoning district in which it is located. All private solar requires a building permit prior to the initiation of construction.
- B. Solar Energy Generation Facility – Solar Energy Generation Facility is permitted as a special use in the agricultural and industrial zoning districts and shall meet requirements set forth in the standards section of the Solar Energy Ordinance.

§17.54.040 Standards for a Solar Energy Generation Facility.

- A. Setbacks:
 - 1. All solar energy equipment and accessory structure of the facility, excluding perimeter fencing, must comply with road setbacks, established in the underlying zoning district. In agricultural zoning districts, the setback for non-residential structures shall apply.
 - 2. All solar energy equipment and accessory structures of the facility, excluding perimeter fencing, must comply with side and rear setbacks established in the underlying zoning district for principal structures. In the case of a solar energy generation facility to be built on more than one parcel and the parcels are abutting, a zero (0) side or rear setback shall be permitted to the property line in common with the abutting parcel(s).
 - 3. The horizontal separation distance from the solar energy generation facility to the nearest principal residential dwelling shall be at least one hundred (100) feet. If the facility is to be located on a parcel with a principal residential dwelling, this one hundred (100) foot setback shall not apply to the principal residential dwelling.
- B. Height: All solar collectors, transformers, equipment or maintenance structure shall comply with the height restriction of the underlying zoning district. Building or roof mounted solar energy systems shall not exceed the maximum allowed height for principal structures in any zoning districts. Ground or pole-mounted solar energy systems shall not exceed twenty (20) feet in height which oriented at maximum tilt.
- C. Minimum Conditions for a Special Use Permit:
 - 1. Design and Installation – Solar collectors shall be designed and located to avoid glare or reflection toward any inhabited buildings on

adjacent parcels. Solar collectors shall be designed and located to avoid glare or reflection toward any adjacent roadways and shall not interfere with traffic or create a traffic safety hazard.

2. Lighting – Lighting shall be limited to the extent required for security and safety purposes and to meet applicable federal, state, or local requirements. Except for federally required lighting, lighting shall be reasonably shielded from adjacent properties and, where feasible, directed downward to reduce light pollution.
3. Security Fencing – Facility equipment and structures shall be fully enclosed and secured by a perimeter fence with a height of six (6) to eight (8) feet. Lock boxes and keys shall be provided at locked entrances for emergency personnel.
4. Warning Signage – A visible warning sign of “High Voltage” shall be posted at all points of site ingress and egress and along the perimeter fence of the facility, at a maximum of three hundred (300) feet apart. A sign that includes the facility’s 911 address and 24-hour emergency contact number shall be posted near all entrances to the facility.
5. Utility Connection – The applicant shall submit with the special use application a copy of a letter from the electric utility company confirming the review of the application for interconnection has started.
6. Fire Safety – It is the responsibility of the applicant to coordinate with the local fire protection district. The applicant shall submit with the special use application an approval letter from the local fire protection district.
7. Roads – Any roads that will be used for construction purposes and egress and ingress shall be identified and approved by the road jurisdiction. All applicable road and bridge weight limits shall be met during construction and maintenance. All applicable permits shall be acquired from the road jurisdiction prior to start of construction. The applicant shall submit with the special use application an approval letter from the road jurisdiction(s).
8. Endangered Species and Wetlands – Applicant shall seek natural resource consultation with the Illinois Department of Natural Resources (IDNR). The applicant shall submit with the special use application the results of the IDNR EcoCAT consultation. The cost of the EcoCAT consultation shall be paid by the applicant.

9. Compliance with Additional Regulations – It shall be the responsibility of the applicant to coordinate with the FAA or other applicable federal or state authority to attain any additional required approval for the installation of a solar energy generation facility. The applicant shall submit with the special use application an approval letter from any federal or state authority requiring permit or approval.
10. Special Use Fees – At the time of filing the special use application, the applicant shall pay the filing fee as set forth in Section 17.54.100 of this Chapter.

D. Minimum Conditions for a Building Permit:

1. Building Permit – All solar energy generation facilities require a building permit to the initiation of construction. Three (3) full sets of construction plans that conform to the manufacturer's standards and to the official codes of the Village shall be submitted with the building permit application. Said plans shall be certified by an Illinois licensed professional engineer.
2. Installation Certification – An Illinois licensed professional engineer shall certify that the construction and installation of the solar energy generation facility meets or exceeds the manufacturer's construction and installation standards and the official adopted codes of the Village.

§17.54.050 Maintenance and Operations. The owner of the solar energy generation facility or solar farm shall maintain the grounds for such facility or farm. Such maintenance shall include all actions necessary to keep the facility grounds free of litter and debris. The owner shall keep all fences maintained in good repair. The applicant shall submit an acceptable weed and grass control plan for property inside and outside the fenced area for the entire property. The applicant must comply with all Village ordinances regarding property maintenance.

§17.54.060 Decommissioning Plan.

- A. The solar energy generation facility shall be required to have a decommissioning plan to ensure it is properly removed upon the end of the project life or facility abandonment. For purposes of this Section, "facility abandonment" shall mean when no electricity is generated by the facility for a consecutive period of two (2) years or when the owner and/or operator of the solar energy generation facility has stated in writing to the Zoning Administrator that the owner or operator intends to abandon, vacant, or cease solar energy creation operations indefinitely on a specified solar energy generation facility. The decommissioning plan shall state how the facility will be decommissioned. Decommissioning shall include removal of

all structures (including solar energy equipment and fencing) and debris to a depth of four (4) feet, restoration of the soil, and restoration of vegetation within six (6) months of the end of project life or facility abandonment. The owner shall restore the land to a condition reasonably similar to its condition before the development of the solar energy generation facility, including replacement of top soil, which may have been removed or eroded, and replacement of trees. A decommissioning plan shall be submitted and approved prior to the issuance of the building permit.

- B. Financial Security – Appropriate means of financial security shall be required as part of the decommissioning plan. The security shall be in the name of the Village for one hundred percent (100%) of the estimated cost of decommissioning. The estimated cost shall not include any projected salvage value of solar energy equipment and other used equipment. The estimated cost shall be prepared by an Illinois licensed professional engineer. Security may be in the form of one of the following: Irrevocable Letter of Credit; Continuous Surety Bond; Cash Escrow Account; or any other means deemed acceptable by the Zoning Officer.
- C. Agreement – The decommissioning plan shall also include an agreement between the applicant and the Village which states:
 - 1. Financial security must remain valid through the life of the project. An updated decommissioning plan including estimated costs prepared by an Illinois licensed professional engineer and financial security must be submitted to the Zoning Officer every four (4) years;
 - 2. The Village shall have access to the financial security funds for the expressed purpose of completing decommissioning if decommissioning is not completed by the owner within six (6) months of the end of the project life or facility abandonment;
 - 3. The Village is granted the right of entry onto the site, pursuant to reasonable notice, to effect or complete decommissioning; and
 - 4. The Village is granted the right to seek injunctive relief to effect or complete decommissioning, as well as the Village's right to seek reimbursement from owner or owner's successor for decommissioning costs which exceed the financial security and to file a lien against any real estate owned by the owner or owner's successor, or in which they have an interest, for the excess amount, and to take all steps allowed by law to enforce said lien.
- D. Release of Financial Security – Financial security shall only be released when the Zoning Officer determines, after inspection, that the conditions of the decommissioning plan have been met.

§17.54.070 Compliance with Building Code. All solar energy systems shall comply with the Village's Building and Property Maintenance Codes as well as all federal and state requirements.

§17.54.080 Liability Insurance. The owner or operator of the solar farm shall maintain a current general liability policy covering bodily injury and property damage and the Village as an additional insured with limits of at least Two Million Dollars (\$2,000,000.00) 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).

§17.54.090 Administration and Enforcement. The Zoning Officer shall enforce the provisions of this Section through an inspection of the solar farm every year. The Zoning Officer is hereby granted the power and authority to enter upon the premises of the solar farm at any time by coordinating a reasonable time with the owner/operator of the facility. Any person, firm or corporation who violates, disobeys, omits, neglects, refuses to comply with, or resists enforcement of any of the provisions of this Section may face a fine of not less than Twenty-five Dollars (\$25.00) nor more than Five Hundred Dollars (\$500.00) for each offense.

§17.54.100 Fees Charged for Building Permit. The fees for processing the applications for building permits and mechanical permits shall be collected by the Zoning Officer who shall be accountable to the Village for such fees as follows:

0-4 kilowatts (kW-dc)	\$ 75.00
5-10 kilowatts (kW-dc)	\$ 150.00
11-50 kilowatts (kW-dc)	\$ 300.00
51-100 kilowatts (kW-dc)	\$ 500.00
101-400 kilowatts (kW-dc)	\$1,000.00
501-1000 kilowatts (kW-dc)	\$3,000.00
1001-2000 kilowatts (kW-dc)	\$5,000.00