SOLAR ENERGY SYSTEMS REGULATIONS

SECTIONS

SECTION 1: PURPOSE

The Town of Carlton (hereinafter referred to as Carlton) finds that solar energy, as properly regulated, is clean, readily available and a renewable energy source beneficial to Carlton, its residents and the general public. Among other things, solar energy can potentially take advantage of a safe, abundant, renewable and non-polluting energy resource and can also decrease the cost of energy to commercial and residential properties. Solar energy can increase employment and business development in Carlton by furthering the installation of solar energy systems and solar energy farms. Carlton finds a growing need to properly site and regulate solar energy systems and solar energy farms within Carlton to protect residential, commercial, business and other areas or land uses, to preserve the overall beauty, nature and character of Carlton to promote the effective and efficient use of solar energy resources and to protect the health, safety and general welfare of the citizens of Carlton. Solar energy systems and/or solar energy farms deplete land available for other uses, introduce industrial usage into other non-industrial areas and can potentially pose environmental challenges. Solar energy systems and/or solar energy farms need to be regulated for removal when no longer utilized and/or useful in order to prevent environmental problems and/or abandonment of industrial properties and/or such solar energy systems and/or solar energy farms.

SECTION 2: DEFINITIONS

ALTERNATIVE ENERGY SYSTEMS: Structures, equipment, devices or construction techniques used for the production of heat, light, cooling, electricity or other forms of energy on site and that may be attached to or separate from the principal structure.

BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV): The incorporation of photovoltaic (PV) material into a building's envelope. Technologies include PV shingles or tiles, PV laminates, and PV glass. Examples of placement include vertical facades,

semi-transparent skylights, awnings, fixed awnings and roofs.

COLLECTIVE SOLAR: Installation of Solar Energy Systems that are owned collectively through a homeowner's association, "Adopt-a-solar-panel" program or similar arrangements.

GLARE: A continuous source of excessive brightness, relative to diffused lighting. This is not a direct reflection of the sun, rather a reflection of the bright light around the sun. Glare is significantly less intense than glint.

GLINT: A momentary flash of light that may be produced as a direct reflection of the sun on a solar collection system.

GROUND-MOUNTED SYSTEM: A solar energy system that is anchored to the ground and attached to a pole or similar mounting system, and detached from any other structure.

MAJOR SOLAR COLLECTION SYSTEM or SOLAR FARM: An area of land or other area used for a solar collection system principally used to capture solar energy and convert it to electrical energy to transfer to the public electric grid in order to sell electricity or to receive a credit from a public utility entity, but also may be for on-site use. Solar farm facilities consist of one or more free standing GROUND-MOUNTED or ROOF-MOUNTED solar collector devices, SOLAR ENERGY EQUIPMENT and other accessory structures and buildings, including light reflectors, concentrators, and heat exchangers, substations, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

MINOR or ACCESSORY SOLAR COLLECTION SYSTEM: A solar photovoltaic cell, panel, array, solar hot air or water collector device, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electrical generation or transfer of stored heat, secondary to the use of the premises for other lawful purposes, with a total surface area of all solar collectors on the lot not to exceed 2,000 square feet. Minor solar collection systems may consist of BUILDING-INTEGRATED PHOTOVOLTAICS, GROUND-MOUNTED or ROOF-MOUNTED solar collector devices.

ROOF-MOUNTED SYSTEM: A solar panel(s) located on a roof of a permitted principle use or accessory structure.

SOLAR ACCESS: Space that is open to the sun and clear of overhangs or shade. Structures constructed on private property will not infringe on the rights of adjacent properties.

SOLAR ENERGY EQUIPMENT/SYSTEMS: Energy storage devices, material, hardware or electrical equipment and conduit associated with the production of electrical energy.

SOLAR PANEL: A device capable of collecting and converting solar energy into electrical energy.

SECTION 3: APPLICABILITY

A. The requirements of this section shall apply to all solar energy systems installed or modified after the effective date of this ordinance, excluding general maintenance and repair.

B. All solar energy systems shall be designed, erected, and installed in accordance with all the applicable codes, regulations, and industry standards as referenced in the New York State Building Code and the Town of Carlton Code.

C. Nothing contained in this provision shall be construed to prohibit "Collective Solar" installations or the sale of excess power through a "net Billing" arrangement in accordance with New York State Public Service Law Section 66-j or similar New York State or federal laws or regulations.

SECTION 4: SOLAR COLLECTORS AND INSTALLATIONS FOR MINOR SYSTEMS

A. Rooftop and building-mounted solar collectors are permitted as accessory structures in all zoning districts in the Town of Carlton, subject to the following requirements:

(1) A building permit has been obtained for the installation of the solar equipment.

(2) Solar energy equipment shall be installed inside walls and attic spaces to reduce their visual impact. If solar energy equipment is visible from a public right-of-way, it shall match the color scheme of the underlying structure.

(3) Panels facing the front yard must be mounted at the same angle as the roof's surface with a maximum distance of 18 inches between the roof and the highest edge of the system.

(4) Solar panels affixed to a flat roof shall be placed below the line of sight from a public right-of-way.

(5) In order to ensure firefighter and other emergency responder safety, except in the case of accessory buildings fewer than 1,000 square feet in area, there shall be a minimum perimeter area around the edge of the roof and structurally supported pathways to provide space on the roof for walking

around all rooftop solar systems in compliance with all applicable New York State Codes.

(6) Rooftop and building-mounted solar collectors shall not obstruct solar access to adjacent properties.

B. Ground-mounted and freestanding solar collectors are permitted as accessory structures in all zoning districts of the Town of Carlton subject to the following requirements.

(1) Solar collectors shall be installed in side and rear yards only and shall meet all applicable setback requirements of the zone in which they are located.

(2) If the side and rear yard is visible from adjacent properties and roads, a landscape buffer shall be installed.

(3) The height of the solar collectors and any mounts shall not exceed the height restrictions of the zone when oriented at maximum tilt and are graduated based on the following requirements:

Ground-Mounted Height & Setback Requirements

Setback	Permissible Height
6 - 10 ft.	6 ft.
11 - 15 ft.	12 ft.
15 ft. or greater	15 ft.

(4) The total surface area of all solar collectors on the lot shall not exceed 2,000 square feet and when combined with all other buildings and structures on the lot, shall not exceed fifty-percent lot coverage.

(5) A building permit has been obtained for the installation.

(6) Solar collectors and other facilities shall be designed and located in order to prevent reflective glare or glint toward any inhabited buildings on adjacent properties or onto roads.

(7) Ground-mounted and freestanding solar collectors shall not obstruct solar access to adjacent properties.

(8) A lot must have a minimum area of 20,000 square feet in order for a ground-mounted or freestanding solar collector to be permitted.

C. Building-Integrated Photovoltaic (BIPV) Systems: BIPV systems are permitted in all zoning districts and shall be shown on plans submitted for

the building permit application for the building containing the system.

D. Where site plan approval is required elsewhere in the regulations of the Town of Carlton for development or activity, the site plan review shall include review of the adequacy, location, arrangement, size design, and general site compatibility of proposed solar collectors.

E. All solar collector installations must be performed in accordance with the applicable electrical and building codes, the manufacturer's installation instructions, and industry standards. Prior to operation, the electrical connections must be inspected by an appropriate electrical inspection person or agency, as determined by the Town of Carlton. In addition, any connection to the public utility grid must be inspected by the appropriate public utility.

F. When solar storage batteries are included as part of the solar collector system, they must be placed in a secure container or enclosure meeting the requirements of the New York State Building Code when in use and when no longer in use shall be disposed of in accordance with the laws and regulations of Orleans County and other applicable laws and regulations.

G. If a solar collector ceases to perform, its originally intended function for more than 12 consecutive months, the property owner shall remove the collector, mount and associated equipment and facilities no later than 90 days after the end of the twelve month period.

SECTION 5: SOLAR COLLECTORS AND INSTALLATIONS FOR MAJOR SYSTEMS OR SOLAR FARMS

A. Major systems or solar farms are permitted on sites zoned for Industrial and Light Industrial use on lots with a minimum size of no less than five acres after a site plan review, the issuance of a special use permit and approval from the Town of Carlton Planning Board. Where applicable, and unless more restrictive regulations also apply, the requirements of the previous sections of this ordinance shall apply to solar collectors and installations for major systems or solar farms. Such installations must also meet the criteria set forth below and obtain all other necessary approvals.

B. Areas of potential sensitivity:

(1) One hundred year flood hazard area as demarcated on the FEMA Flood Maps.

(2) Historic and/or culturally significant resources as designated either at the local, state or federal level.

(3) Within 100 feet of a New York State wetland.

(4) Land in an Agricultural District and/or prime farm land. Applicants shall to the extent practicable site major systems on lands considered to be marginal. If not practicable, the burden of proof shall fall on the applicant.

(5) Any other areas so deemed by the Town of Carlton Planning Board.

C. A major system or a solar farm may be permitted in all zones other than WD or WR districts in the Town of Carlton when authorized by site plan review and special use permit subject to the following conditions:

(1) The total coverage of all buildings and structures on a lot, including Freestanding solar panels, shall not exceed 50%.

(2) The maximum height for freestanding solar panels on the ground or attached to a framework located on the ground shall not exceed 15 feet above the ground.

(3) The minimum setback from property lines shall be 25 feet.

(4) A landscaping buffer shall be provided around all equipment and solar collectors to provide screening from adjacent residential properties and roads. The nature and extent of the buffer shall be determined by the Town of Carlton Planning Board.

D. Design standards:

(1) Removal of trees and other existing vegetation should be minimized or offset with planting elsewhere on the property.

(2) Removal of any prime agricultural soil from any subject parcel is prohibited.

(3) Proposed major solar systems shall not negatively impact the viability of prime agricultural soils on the site.

(4) Roadways within the site shall not be constructed of impervious materials and shall be designed to minimize the extent of roadway construction and soil compaction.

(5) All on-site utility and transmission lines shall be placed underground.

(6) Solar collectors and other facilities shall be designed and located in order

to prevent reflective glare and/or glint toward any inhabited buildings on adjacent properties and roads.

(7) All mechanical equipment, including any structure for batteries or storage cells, shall be enclosed by a minimum six-foot high fence with a self-locking gate and provided with landscape screening. The nature and extent of the screening shall be determined by the Town of Carlton Planning Board.

(8) Major systems or solar farms shall not obstruct solar access to adjacent properties.

E. Signs:

(1) A sign, not to exceed eight square feet, shall be displayed on or near the main access point and shall list the facility name, owner and phone number.

(2) A clearly visible warning sign, not to exceed four square feet, concerning voltage must be placed at the base of all pad-mounted transformers and substations.

F. Abandonment:

(1) All applications for a solar farm shall be accompanied by a decommissioning plan to be implemented upon abandonment, or cessation of activity, or in conjunction with removal of the facility.

(2) If the applicant begins but does not complete construction of the project within 18 months after having received final site plan approval, this may be deemed abandonment of the project and require implementation of the decommissioning plan.

(3) The decommissioning plan must ensure the site will be restored to a useful, non-hazardous condition without delay, including, but not limited to, the following:

(a) Removal of above-ground and below-ground equipment, structures and foundations.

(b) Restoration of surface grade and soil after removal.

© Replanting of restored soil areas with native seed mixes excluding any invasive species.

(d) A time frame for completion of the restoration work.

(4) In the event the facility is not completely functioning within 18 months of the issuance of the final site plan approval, the Town of Carlton may notify the operator and/or the owner to complete construction and installation of the facility within 180 days. If the operator and/or owner fail to comply, the Town of Carlton may notify the operator and/or owner to implement the decommissioning plan. The decommissioning plan must be completed within 180 days of notification by the Town of Carlton.

(5) Upon cessation of activity of a constructed facility for a period of one year, the Town of Carlton shall notify the operator and/or owner of the facility to implement the decommissioning plan. Within 180 days of notice being served, the operator and/or owner can either restore operation equal to 80% of the approved capacity or implement the decommissioning plan.

(6) If the operator and/or owner fails to fully implement the decommissioning plan within the 180 day time period, the Town of Carlton may, at its discretion, provide for the restoration of the site in accordance with the decommissioning plan and may recover all expenses incurred for such activities from the defaulter operator and/or owner. The cost incurred by the Town of Carlton shall be assessed against the property, shall become a lien and tax upon the property, and shall be enforced and collected with interest by the same officer and in the same manner as other taxes.

SECTION 6: SPECIAL USE PERMIT REQUIREMENTS

A. Verification of utility notification. Any foreseeable infrastructure upgrades shall be documented and submitted. Off-grid systems are exempt from this requirement.

B. Name, address, and contact information of the applicant, property owner(s), and agent submitting the project.

C. If the property of the proposed project is to be leased, legal consent between all parties, specifying the use(s) of the land for the duration of the project, including easements and other agreements, shall be submitted.

D. Site plan: Site plan approval is required.

E. Drawings signed by a professional engineer or registered architect, of the solar installation showing the layout of the system.

F. Equipment specification sheets shall be documented and submitted for all photovoltaic panels, significant components, mounting systems, and invertors that are to be installed.

G. Property operation and maintenance plan: A property operation and maintenance plan is required, describing continuing photovoltaic maintenance and property upkeep, such as mowing, trimming, etc.

SECTION 7: SOLAR IN HISTORIC DISTRICTS OR ON HISTORIC STRUCTURES

A. Roof-mounted systems, ground-mounted systems, and BIPV systems are permitted by special use permit on accessory structures that do not contribute to the historic significance of the site. A historic structure shall be considered any structure with a local, state, or federal designation.

B. Solar panels shall not alter a historic site's character defining features, or be placed within view of a public right-of-way.

C. All modifications to a historic site must be entirely reversible, allowing alterations to be removed or undone to reveal the original appearance of the site.

D. Exposed solar energy equipment must be consistent with the color scheme of the underlying structure.

E. Solar panels shall be placed flush to the roof's surface to reduce their visual impact.

F. BIPV shall take into account the existing design elements which compliment the styles and materials of the building.

G. Ground mounted systems shall be screened from the public right-of-way by fencing or vegetation of suitable scale for the district and setting.

H. Setback, Height, and Lot Coverage - Reference "Section 4 - Solar as a Permitted Accessory Use/Structure".

I. The issuance of a Certificate of Appropriateness is required by the Historic Preservation Review Board for ground mounted systems, BIPV, and all historic structures.

SECTION 8: SEVERABILITY

If any part or provision of this Local Law or the application thereof to any person or

circumstance be adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part or provisions or application directly involved in the controversy in which such judgment shall have been rendered and shall not affect or impair the validity of the remainder of the Local Law or the application thereof to other persons or circumstances, and the Town of Carlton Board hereby declares that it would have passed this Local Law or the remainder thereof had such invalid application or provision been apparent.

SECTION 9: REPEAL

All ordinances, local laws, and parts thereof inconsistent with this Local Law are hereby repealed.

SECTION 10: EFFECTIVE DATE

This Local Law shall take effect immediately upon filing in the Office of the New York State Secretary of State in accordance with Section 27 of the Municipal Home Rule Law.