## § 180-52. Solar energy. [Added 7-5-2017 by L.L. No. 2-2017 ]

A. Town Policy Statement, Purpose, and Intent

(1) Introduction. The policy statements set forth in this subsection regarding large- scale solar energy systems are in addition to, and do not necessarily supersede, the general land use policies set forth in the Zoning Ordinance. Where policies conflict, the policies set forth in this section control only as they pertain to large-scale solar energy systems.

(2) The Town of Athens supports sustainable renewable energy sources such as solar energy and does not seek to discourage such energy sources to be installed in the Town. However, renewable energy development in the Town must be consistent with the Town's vision and goals, including:

(a) Protect and maintain air and water quality from pollution and establish effective storm water management practices.

(b) Preserving scenic views of the rural environment, the Hudson River, views of the Catskill and Berkshire Mountains, open spaces, and other important physical features in Athens;

(c) Protect and enhance existing productive or potentially productive farmlands and working landscapes.

(d) Enhance the use of and access to the Hudson River and its waterfront as a centerpiece for recreational, social, cultural, and economic activities in Athens. Limit new industrial uses there.

(e) Preserve the historic character of Athens while promoting new and affordable uses.

(3) The Town finds that small scale solar energy systems which are accessory to the primary use of the parcel and are installed for the primary purpose of supplying electricity to the buildings and uses located on that parcel is in keeping with the Town's Comprehensive Plan and land use policies. Such accessory systems are to be encouraged so long as they do not impact neighboring properties, are safely installed, do not impair emergency access and are removed when no longer used.

(4) The Town finds that large-scale solar energy systems if not sited properly, appropriately screened, and sited to minimize loss of the remaining productive farmland and open spaces in Town may be incompatible with the Town's Comprehensive Plan and Zoning Ordinance. Therefore, with respect to large-scale solar energy system development:

(a) Large-scale solar energy system development should prevent negative impacts to identified important visual corridors and scenic locations, limit vegetation removal or replanting of native vegetation, avoid development of steep slopes, preserve open space values of farmlands, maintain the Town's farmland, and maintain a critical mass of farmland so as to prevent further fragmentation of the Town's existing farms.

(b) In order to achieve these objectives, large-scale solar energy system development should not be sited in rural residential areas; agriculture zones; open space, forested lands, and conservation areas; scenic corridors, or commercial zones but may be sited in areas suitable for light industrial development.

(5) The regulations set forth in this section are intended to ensure that large-scale solar energy systems are only allowed of a scale, location and plan that appropriately recognizes the aforementioned land use policies, as well as the policies set forth in the Town's Comprehensive Plan and Zoning Ordinance.

B. Definitions. As used in this section, the following terms shall have the meanings indicated. The definitions contained in § 180-3 shall also apply to this section.

AGRIVOLTAICS - A simultaneous use of land for solar photovoltaic power generation and agricultural production of 'crops, livestock, and livestock products' as that phrase is defined by Agriculture & Markets Law (AML) §301(2).

BUILDING-INTEGRATED PHOTOVOLTAIC SYSTEM — A combination of photovoltaic building components integrated into any building structure, such as vertical facades including glass and other facade material, semitransparent skylight systems, roofing materials, and shading over windows, that maintain a uniform profile or surface of vertical walls, window openings, and roofing.

FACILITY AREA - The cumulative land area occupied during the commercial operation of the solar energy generating facility. This shall include all areas and equipment within the facility's perimeter boundary and/or fence – including the solar energy system, onsite interconnection equipment, onsite electrical energy storage equipment, and any other associated equipment – as well as any Solar Energy Equipment beyond the facility's perimeter boundary, including, without limitation, improvements necessary for the utility interconnection, access roads, or other permanent improvements, etc., but excluding those established off-site for impact mitigation purposes, including but not limited to tree plantings.

GROUND-MOUNTED SOLAR ENERGY SYSTEM — A solar energy system that is anchored to the ground, attached to a pole or other mounting system, and detached from any other structure, and which produces energy primarily (or solely) for the purpose of on-site consumption.

LARGE-SCALE SOLAR ENERGY SYSTEM — A solar energy system that is ground-mounted and produces energy primarily for the purpose of off-site sale or consumption. Large-scale solar energy systems are not Essential Services, as defined in § 180-3 of this chapter. For the purposes of defining the footprint (size) of the solar energy system, the area within the required fence and any access roads and utility connections shall be included in such calculations.

NATIVE PERENNIAL VEGETATION: Native wildflowers, forbs, and grasses that serve as habitat, forage, and migratory way stations for Pollinators and shall not include any prohibited or regulated invasive species as determined by the NYS Department of Environmental Conservation.

ROOF-MOUNTED SOLAR ENERGY SYSTEM — A solar energy system in which solar panels are mounted on the roof of any legally permitted building either as a flush-mounted system or as modules fixed to frames which can be titled toward the south at an optimal angle.

SOLAR ENERGY EQUIPMENT — Electrical energy storage devices, material, hardware, utility interconnection, inverters, or other electrical equipment and conduit of photovoltaic devices associated with the production of electrical energy.

SOLAR ENERGY SYSTEM — An electrical generating system composed of a combination of both solar panels and solar energy equipment. Solar energy systems are not considered "agricultural structures" as defined and used in this chapter.

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

C. Applicability. This section applies to all solar energy systems proposed to be constructed after the effective date of this section, excluding building-integrated photovoltaic systems and general maintenance and repair of existing solar energy systems. This section also applies to physical modifications that materially alter the type, configuration, or size of a solar energy system or related equipment.

D. Solar as an accessory use or structure.

(1) Roof-mounted solar energy systems.

(a) Roof-mounted solar energy systems that use the electricity on site or off site are permitted as an accessory use in all zoning districts when attached to any lawfully permitted building, subject to the following requirements:

[1] Building permits shall be required for installation of all roof-mounted solar energy systems.

[2] Roof-mounted solar energy systems shall not exceed the maximum height restrictions contained in Table 2, Density and Dimensions.

[3] When feasible, solar 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 solar panels at maximum tilt.

[4] Roof-mounted solar energy systems shall be constructed and operated in compliance with the New York State Uniform Fire Prevention and Building Code.

(b) Roof-mounted solar energy systems that use the energy on site or off site shall be exempt from site plan review under the local zoning code or other land use regulations.

(2) Ground-mounted solar energy systems. Ground-mounted solar energy systems that use the electricity primarily on site are permitted as accessory structures in all zoning districts, subject to site plan and special permit approval by the Planning Board and the following requirements:

(a) In addition to the application requirements for special use permits and site plan review, set forth at Sections 180-55 and 180-56, respectively, the following additional information shall be submitted:

[1] Nameplate Capacity of the Solar Energy System (as expressed in kW or MW); and

[2] A preliminary equipment specification sheet that documents all proposed Solar Panels, system components, mounting systems, racking system details, battery energy storage system, and inverters that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.

(b) Building permits shall be required for installation of all ground-mounted solar

energy systems.

(c) Ground-mounted solar energy systems shall adhere to the height, setback, and maximum percent parcel coverage of the underlying zoning district, as shown in Table 2, Density and Dimensions.[2] In determining the maximum percent parcel coverage, the total square footage of the solar panels, along with the impervious footprint of the solar energy systems, shall be included along with any other structures on the parcel.

(d) In residential districts, no ground-mounted solar energy systems shall be installed in front yards.

(e) Ground-mounted solar energy systems shall be screened when possible and practicable from adjoining lots and street rights-of-way through the use of architectural features, earth berms, landscaping, fencing or other screening which harmonizes with the character of the property and the surrounding area to the extent that the screening does not interfere with normal operation of the solar energy systems.

(f) Ground-mounted solar energy systems shall not be sited within any required buffer area.

(g) All solar collectors and related equipment shall be surfaced, designed, and sited so as not to reflect or cast glare onto adjacent properties or roadways. All structures and devices used to support solar collectors shall be non-reflective and/or painted a subtle or earth-tone color to aid in blending the facility into the existing environment.

(h) Ground-mounted solar energy systems shall be constructed and operated in compliance with the New York State Uniform Fire Prevention and Building Code.

E. Approval standards for large-scale solar energy systems as a special use.

(1) Large-scale solar energy systems are permitted within the Light Industrial 1 (LI-1), Light Industrial 2 (LI-2), and Agriculture (Ag) Districts as a special use, subject to special use permit approval pursuant to § 180-56 site plan review pursuant to § 180-55 by the Planning Board and the following supplementary regulations contained in this section.

(2) Large-scale solar energy systems shall adhere to the setback and maximum percent parcel coverage of the underlying zoning district, as shown in Table 2, Density and Dimensions, except as set forth in this section.

(a) The Facility Area shall not exceed a maximum size of 50 acres.

(b) In determining the maximum percent parcel coverage, the Facility Area shall be used.

(c) The setback from non-participating residence(s), as measured from the nearest property line shall be 350 feet.

(d) The setback from Participating residence(s), as measured from the nearest wall of the building shall be 100 feet.

(3) Large-scale solar energy systems situated within the Ag District shall adhere to the Ag

District standards set forth at Section 180-15(B). For the purposes of conformance to Section 180-15(B)(7), the extent of permanently preserved open space shall be equivalent to the Facility Area, as set forth in this Section.

(4) Building permits shall be required for installation of all large-scale solar energy systems.

(5) Large-scale solar energy systems shall be subject to the environmental performance standards set forth at § 180-24 of this chapter.

(6) Incorporation of agrivoltaics encouraged. Applicants are encouraged to incorporate agriculture on the same land as the large-scale solar energy system and, where agrivoltaics are not incorporated, shall provide a written statement addressing why incorporation of agrivoltaics is infeasible or undesirable.

(7) Site plan application requirements. Any application under this section shall meet any substantive provisions contained in § 180-55D that, in the judgment of the Planning Board, are applicable to the solar energy system being proposed. In addition, the following documentation, as applicable, shall be submitted for any large-scale solar energy system:

(a) If the property of the proposed project is to be leased, documentation of legal consent between all parties, specifying the use of the land for the duration of the project, including easements and other agreements;

(b) Blueprints showing the layouts of the solar energy system signed by a professional engineer or registered architect;

(c) Equipment specification sheets for all solar panels, and significant components, mounting systems, and inverters that are to be installed, including an identification of any known or state or federally-classified toxic substances contained in the proposed equipment;

(d) A property operation and maintenance plan that describes how the solar energy system and property on which it is located will be maintained, including measures for maintaining safe access to the system and a description of how ground cover and screening plantings will be maintained (i.e., mowing and trimming);

(e) A decommissioning plan that meets the requirements of § 180-52D(5);

(f) A visual impact assessment that meets the following requirements:

[1] The Applicant shall provide narrative, images, renderings, maps, and other materials to assist the Planning Board in determining potential visual impacts associated with the battery energy storage system. At a minimum, a line-of-sight analysis, from points to be selected in consultation with the Planning Board, must be provided.

[2] The visual impact assessment materials shall generally conform to NYSDEC Program Policy for Assessing and Mitigating Visual Impacts, in the discretion of the Planning Board.

(g) Screening and landscaping plan prepared by a licensed landscape architect;

(h) A map showing the location and species of all native, non-invasive trees of six (6)

inches and greater diameter at breast height.

(i) Identification of the groundwater conditions in the area and all public and private water supply wells within 1,000 feet of the site;

(j) If requested, documentation detailing the available capacity of the region's existing electric infrastructure and the effect the proposed facility will have on this infrastructure;

(k) The proposed means of construction and installation of the solar energy equipment, including racking systems and information to substantiate said means of construction, such as a geotechnical report; and

(l) A site plan, showing the following elements, in addition to the elements listed in § 180-55D(7) as applicable to the project:

[1] The location of proposed and existing overhead and underground utility and transmission lines;

[2] The location of any proposed or existing substation, inverter, transformer or equipment enclosures on the site;

[3] If requested, a description of any necessary upgrades or modifications to existing substations or the necessity for a new substation;

[4] A description of how the solar energy system's generated energy will connect to the electrical distribution or transmission system or the intended user's electrical system;

[5] The location and elevations of all transmission lines, support structures, and attachments to the substation(s); and

[6] Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures.

(8) Site plan review standards.

(a) The height of the Solar Energy System shall not exceed 17 feet. Height is measured from the lowest adjacent grade to the highest point of the structure, including any attachments (such as a lightning-protection device). The Planning Board, in its discretion, may permit the height of the Solar Energy System to exceed 17 feet where the Board finds that greater height is required to accommodate agrivoltaics or farming operations, as defined in the zoning law, within the Facility Area. Large-scale solar energy systems shall be enclosed by perimeter fencing 8 1/2 feet tall to restrict unauthorized access. Clearly visible warning signs with the owner's contact information shall be posted at the entrance and perimeter of the fencing.

(b) Solar energy equipment, and accessory structures shall, to the extent reasonably possible, use materials, colors, and textures that will blend the solar energy system with the existing environment.

(c) Reasonable efforts, as determined by the Planning Board, shall be made to place all on-site power lines underground, depending on the appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. On-

site transformers and the utility interconnection equipment shall, to the maximum extent practicable, be placed on the ground and not on utility poles. The location of all proposed equipment, including the proposed utility interconnection, shall be shown on the site plan. If at the time of the site plan approval the final utility interconnection has not been designed and/or approved by the utility company, the Planning Board may conditionally approve the site plan with the condition that the applicant return for final site plan review once the interconnection has been designed.

(d) The Planning Board may impose conditions on its approval of any site plan under this section in order to enforce the standards referred to in this section or in order to discharge its obligations under the State Environmental Quality Review Act (SEQRA).

(9) Screening, buffering, landscaping, and vegetation management.

(a) If the buffering and screening plan utilizes vegetative planting, the plantings shall consist of noninvasive evergreen trees or bushes, deer and weather resistant plant species, or other noninvasive species as otherwise recommended by the landscape architect, planted no more than eight feet apart and at least four feet tall at time of planting, or as otherwise required by the Board, or as may be recommended as part of the visual impact assessment. The buffer shall obtain a height of at least 10 feet within five growing seasons. Invasive species shall not be planted as part of the landscape buffer.

(b) Adequate measures to screen the large-scale solar energy system through landscaping, grading, or other means so that views of Solar Panels and Solar Energy Equipment from public roadways and adjacent properties shall be minimized to the maximum extent feasible.

(c) The Planning Board may elect to waive certain screening and landscaping requirements in select locations based on an applicant's demonstration of non-impact or impact mitigation on adjacent parcels.

(d) The Planning Board may require a landscaping maintenance performance security, in the form of cash or other form acceptable to the Town, to ensure the proper maintenance and continued viability of the landscaping surrounding the solar site.

(e) Native perennial vegetation shall be used to establish permanent vegetative cover within the facility area.

(f) The use of herbicides as part of ongoing maintenance operations shall be prohibited unless a showing by the applicant that use of such methods is required as part of best practices necessary to manage vegetation, such as invasive species, or as part of sound agricultural practices, as defined under NYS AML. Any herbicide use shall be in accordance with applicable NYSDEC and other recognized standards.

(10) Tree clearing. The clearing of all native, non-invasive trees and woods shall be minimized to the maximum extent practical. In no case is the clearing of all native, non-invasive trees of an area larger than five (5) acres permitted. In addressing the requirements of this section, the Planning Board, in its discretion, may require an evaluation of existing mature trees prepared by a qualified arborist or other professional,

with associated expenses borne solely by the applicant.

(11) Decommissioning plan. To ensure the proper removal of large-scale solar energy systems, a decommissioning plan that meets the following requirements shall be required for all large-scale solar energy systems:

(a) Compliance with this plan shall be made a condition of special use permit and site plan approval.

(b) Decommissioning requires removal of the solar energy system, including but not limited to removal of solar panels, solar energy equipment, associated buildings, cabling, electrical components, and any other associated facilities below grade as described in the approved decommissioning plan.

(c) The decommissioning plan must:

[1] Specify that after the large-scale solar energy system has been abandoned or can no longer be used, it shall be removed by the applicant or any subsequent owner For purposes of this section, "abandonment" shall have the same meaning as set forth in § 180-52(7), below;

[2] Describe how the removal of all infrastructure and the remediation of soil and vegetation shall be conducted to return the site to its original state prior to construction. For purposes of this section, "original state" requires restoration of vegetative cover;

[3] Provide for the removal of all hazardous materials from the property and disposition of hazardous material in accordance with federal and state law;

[4] Describe the anticipated life of the large-scale solar energy system;

[5] Include a cost estimate, which takes into account inflation, prepared by a professional engineer detailing the projected cost of executing the decommissioning plan; and

[6] Include a timeline for execution, not to exceed one year.

(d) Prior to the issuance of a certificate of compliance from the Code Enforcement Officer, the applicant must provide the Town with a performance guarantee as provided below. The amount of the guarantee shall be the estimated decommissioning cost provided in the approved Decommissioning Plan.

[1] The following types of performance guarantees are permitted:

[a] A surety or performance bond that renews automatically, includes a minimum sixty-day notice to the Town prior to cancellation, is approved by the Town Attorney, and is from a company on the United States Department of Treasury's Listing of Certified Companies.

[b] A certified check deposited with the Town to be deposited by the Town in an interest-bearing account, with all interest accruing to the applicant. The Town shall be permitted to draw from the account in the event that the applicant fails to carry out the decommissioning plan. Funds deposited with the county finance director will be returned when the

system is decommissioned and any required site restoration is completed.

[c] A no-contest irrevocable letter of credit issued by a banking corporation licensed to do business in the State of New York. The terms of the letter must include the absolute right of the Town to withdraw funds from the bank upon certification by the Code Enforcement Officer that the terms of the performance guarantee have been breached. The letter of credit must be valid up to 12 months from the date the performance guarantee was approved and shall be continuously renewed or extended until the decommissioning plan is carried out.

[2] The full amount of the surety or bond, certified check, or letter of credit must remain in full force and effect until the large-scale solar energy system is decommissioned and the necessary site restoration is complete. Any successor in interest to the applicant shall be subject to these provisions to the same extent as the original applicant.

[3] The decommissioning plan shall run to the benefit of the Town of Athens and be executed by the operator as well as the owners, and such signatures shall be notarized in a format that allows the plan to be recorded at the Office of the Greene County Clerk. This document shall be recorded as an irrevocable deed restriction indexed against the property upon which the solar energy system is to be constructed.

(12) Modifications. All material modifications to a large-scale solar energy system made after initial site plan approval and the issuance of the required building permit shall require approval by the Planning Board.

(13) Annual Report. As a condition of special use permit approval, an Annual Report shall be required. The large-scale solar energy system owner shall, on a yearly basis, provide the Code Enforcement Officer a report meeting the following requirements:

(a) The report shall show the rated capacity of the system and the amount of electricity that was generated by the system and transmitted to the grid over the most recent twelve-month period.

(b) The report shall identify any change in ownership of the large-scale solar energy system and/or the land upon which the system is located and shall identify any change in the party responsible for decommissioning and removal of the system upon its abandonment.

(c) The annual report shall be submitted no later than 45 days after the end of the calendar year.

(d) Every third year, to coincide with the filing of evidence of financial security, the annual report shall also include a recalculation of the estimated full cost of decommissioning and removal of the major solar energy system. The Code Enforcement Officer may require an adjustment in the amount of the surety to reflect any changes in the estimated cost of decommissioning and removal. Failure to submit a report as required herein shall be considered a violation subject to the penalties of the Town's zoning law.

(14) Abandonment and decommissioning. Large-scale solar energy systems are considered

abandoned after one year without active and continuous electrical generation and shall be decommissioned and removed from the property at the owner's or operator's expense pursuant to the decommissioning plan submitted with the applicant's site plan application. If the large-scale solar energy system is not decommissioned after being considered abandoned, the Town may, in addition to the Town's other available remedies, remove the system, restore the property, and impose a lien on the property to cover these costs to the Town.

(15) Safety. As a condition of special use permit approval, the following requirements shall apply:

(a) Emergency preparedness and response.

[1] The large-scale solar energy system owner or operator shall provide a copy of the blueprints and site plan to the responding fire department and other involved emergency services entities. Upon request, the owner or operator shall cooperate with local emergency services to develop an emergency response plan. All means of shutting down the solar energy system shall be clearly marked, in accordance with applicable codes and at the direction of the authority having jurisdiction.

[2] The owner or operator shall be required, at its sole expense, to provide training to the fire department and other responding personnel at intervals to be agreed upon by the fire chief.

[3] The responding fire department and, as applicable, any additional involved first responders shall be provided means of obtaining 24-hour access to the large-scale solar energy system facility. The means of access shall be determined by the authority having jurisdiction or as may otherwise be required by the Town and/or applicable code.

(b) The owner shall be required to provide a service level agreement (SLA) that addresses the following:

[1] Provision of a 24-hour single point of contact for any matter, including emergency situations and other concerns as may arise, relating to the large-scale solar energy system facility. The SLA must specify a maximum fifteen (15) minute call back time.

[2] A reasonable time period within which the owner must make a subject matter expert available on-site to respond to such incidents as may reasonably require personnel with specialized knowledge of the facility on-site.

[3] Any other such provisions as may reasonably be identified by the Planning Board.

(c) The solar panels shall use non-toxic materials in their construction to the maximum extent practical. Should the large-scale solar energy system facility incorporate the use of toxic substances, the Planning Board, in its discretion, may require environmental sampling and monitoring as may reasonably be necessary to address presence of such toxic materials on the site.

(16) Compliance with laws, ordinances, and regulations. The construction and operation of

§ 180-52

all large-scale solar energy systems shall be in compliance with all applicable local, state, and federal laws, ordinances, and regulations, including but not limited to all applicable safety, construction, electrical, and communications requirements.