Village of Nyack
Village Planner

Memo

To: Mayor and Board of Trustees

From: Bob Galvin, AICP – Village Planner

CC: Don Yacopino, Building Inspector, Marcy Denker, Sustainability Coordinator

Date: 10/28/19

Re: Revised Solar Legislation

The use-specific standards with respect to solar energy collectors were adopted and added to the Village Code as part of the Village's Comprehensive Master Plan Update in 2016. The recommendations for revised solar energy standards are based on our review of the *NYS Model Solar Energy Local Law* and internal inconsistencies between the current adopted solar standards and the Village's sustainability section (360-4.4).

An example of this inconsistency relates to the sustainability section 4.14 which provides a sustainability incentive to encourage the placement of solar collectors on multi-family and commercial roofs. However, in the Use-Standards section 360-3.2 (10), solar energy collectors in commercial and multi-family zones are limited to the lesser of 1,000 sf or 33% of the area of the entire lot. This essentially means that the maximum size allowed would be 1,000 sf. Otherwise, a variance would be required. Each of the site plan applications before the Planning Board for multi-family projects have opted to use roof-mounted solar collectors as a sustainability element but, at the same time, have been required to obtain a variance from the ZBA. All these variances have been approved by the ZBA.

There have been 30 – 40 applications over the last three years for roof-mounted solar collectors in single- and two-family residential zones. All these applications are small scale solar installations and use the *New York State Unified Solar Permit and checklist* for expedited small scale solar installations (solar installation with a rated capacity of 25 kw or less). These applications are handled administratively by the Village of Nyack Building Department using the N*ew York State Unified Solar Permit (updated by NYS in October 2016).*

The proposals are being requested by the Building Inspector, Sustainability Coordinator and Chairman of the Zoning Board of Appeals to bring the Village Code in line with NYS solar energy policy and permitting and elements of the NYS Model Solar Local Law which will eliminate inconsistencies with the Village's sustainability section. The legislative language proposed is based on the *NYS Model Solar Energy Local Law* adapted for the Village of Nyack.

Local Law # ___ of 2020

A local law to amend the Zoning Code Chapter 360 – 3.2 with respect to Use-Specific Standards for Solar Energy Collectors (the existing Language in 360-3.2 to be deleted; language below in **bold** is to be added):

§360 – 3.2 Use-Specific Standards

(10) Solar energy collectors.

1. **Authority.**

This Solar Energy Local Law is adopted pursuant to sections 7-700 through 7-704 of the Village Law of the State of New York, which authorize the Village of Nyack to adopt zoning provisions that advance and protect the health, safety and welfare of the community, and, in accordance with the Village law of New York State, "to make provision for, so far as conditions may permit, the accommodation of solar energy systems and equipment and access to sunlight necessarytherefor."

2. **Statement of Purpose.**

This Solar Energy Local Law is adopted to advance and protect the public health, safety, and welfare of Village by creating regulations for the installation and use of solar energy generating systems and equipment, with the following objectives:

1) **To take advantage of a safe, abundant, renewable and non-polluting energy resource;**

2) **To decrease the cost of electricity to the owners of residential and commercial properties, including single-family houses;**

3) **To increase employment and business development in the Village, to the extent reasonably practical, by furthering the installation of Solar Energy Systems;**

4) **To mitigate the impacts of Solar Energy Systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources,**

5) **To create synergy between solar and other stated goals of the community pursuant to its LWRP & Zoning Code (such as downtown revitalization, vacant land management, creating a walkable, healthy community, etc.).**

Consequently, the Village is desirous of promoting:

(a) **a decrease in the use of fossil fuels, thereby, reducing the carbon footprint of Village of Nyack;**

(b) investment in a locally generated source of energy and to increase local economic value, rather than importing non-local fossil fuels;

(c) To align the laws and regulations of the community with several policies of the State of New York, particularly those that encourage distributed energy systems (the NYS Unified Solar Permit was updated in October 2016);

(d) To become more competitive for state and federal grants and tax benefits;

(e) To make the community more resilient during storm events;

(f) To aid in the energy independence of the community as well as the country;

(g) To diversify energy resources to decrease dependence on the grid;

(h) To improve public health;

(j) To encourage a sense of pride in the community;

(k) To encourage investment in public infrastructure supportive of solar, such as generation facilities, grid-scale transmission infrastructure, and energy storage sites.

3. **Definitions.**

BUILDING-INTEGRATED SOLAR ENERGY SYSTEM: A combination of Solar Panels and Solar Energy Equipment integrated into any building envelope system such as vertical facades, semitransparent skylight systems, roofing materials, or shading over windows, which produce electricity for onsite consumption.

GLARE: The effect by reflections of light with intensity enough as determined in a commercially reasonable manner to cause annoyance, discomfort, or loss in visual performance and visibility in any material respects.

GROUND-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System that is anchored to the ground via a pole or other mounting system, detached from any other structure that generates electricity for onsite or of site consumption.

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 New York State Department of Environmental Conservation.

ROOF-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System located on the roof of any legally permitted building or structure that produces electricity for onsite or off-site consumption.

SOLAR ACCESS: Space open to the sun and clear of overhangs or shade to permit the use of active and/or passive Solar Energy Systems on individual properties.

SOLAR ENERGY EQUIPMENT: Electrical material, hardware, inverters, conduit, storage devices, or other electrical and photovoltaic equipment associated with the production of electricity.

SOLAR ENERGY SYSTEM: The components and subsystems required to convert solar energy into electric energy suitable for use. The term includes, but is not limited to, Solar Panels and Solar Energy Equipment. The area of a Solar Energy System includes all the land inside the perimeter of the Solar Energy System, which extends to any interconnection equipment. A Solar Energy System is classified as a Tier 1, Tier 2, or Tier 3 Solar Energy System as follows:

(a) Tier 1 Solar Energy Systems include the following: a. Roof-Mounted Solar Energy Systems, b. Building-Integrated Solar Energy Systems.

(b) Tier 2 Solar Energy Systems include Ground-Mounted Solar Energy Systems with a total surface area of all solar panels on the lot of up to 4,000 square feet and that generate up to 110 % of the electricity consumed on the site over the previous 12 months.

(c) Tier 3 Solar Energy Systems are systems that are not included in the list for Tier 1 and Tier 2 Solar Energy Systems.

4. Applicability

A. The requirements of this Local Law shall apply to all Solar Energy Systems permitted, installed, or modified in Village of Nyack after the effective date of this Local Law, excluding general maintenance and repair.

B. Solar Energy Systems constructed or installed prior to the effective date of this Local Law shall not be required to meet the requirements of this Local Law.

C. Modifications to an existing Solar Energy System that increase the Solar Energy System area by more than 5 % of the original area of the Solar Energy System (exclusive of moving any fencing) shall be subject to this Local Law.

D. All Solar Energy Systems shall be designed, erected, and installed in accordance with all applicable codes, regulations, and industry standards as referenced in the NYS Uniform Fire Prevention and Building Code ("Building Code"), the NYS Energy Conservation Code ("Energy Code"), and the Village Code except that the New York State Unified Solar Panel Application form (updated by NYS in October 2016) shall be acceptable for permitting solar installations in the Village of Nyack.

5. General Requirements

All solar energy collectors shall be subject to the following requirements:

[1] Solar energy collectors shall be structures and shall require a Building permit and certificate of compliance issued by the Building Inspector.

[2} Solar energy collectors shall be permitted only to provide power for use by owners, lessees, tenants, residents, or other occupants of the premises on which they are erected, but nothing contained in this provision shall be construed to prohibit the sale of excess power through a net billing or similar program in accordance with New York Public Service Law §66-j or similar state or federal statute.

[3] All Solar energy collectors shall have anti-reflective coatings.

[4] Permitting Requirements for Tier 1 Solar Energy Systems.

All Tier 1 Solar Energy Systems shall be permitted in all zoning districts and shall be exempt from site plan review under the local zoning code or other land use regulation, subject to the following conditions for each type of Solar Energy Systems:

All Roof-Mounted and Building-Integrated Solar Energy Systems are permitted in all zoning districts and shall be exempt from site plan review under the local zoning code or other land use regulation, subject to the following conditions for each type of Solar Energy System:

[1] Roof-mounted solar energy collectors shall incorporate, when feasible, the following design requirements:

[a] Shall be mounted no more than 12 inches above the surface to which they are affixed.

[i] On a pitched roof, shall not extend beyond the highest point of the roof-surface.

[ii] On a flat roof, shall not extend beyond surrounding parapet, or more than 24" above flat roof surface, whichever is higher.

[iii] All Roof-Mounted Solar Energy Systems shall be subject to the maximum height regulations specified for principal and accessory buildings within the underlying zoning district unless otherwise provided in (ii) above.

[2] Building-Integrated Solar Energy Systems shall be shown on the plans submitted for the building permit application for the building containing the system.

6. **Permitting Requirements for Tier 2 Solar Energy Systems.**

1. **All Tier 2 Solar Energy Systems shall be permitted in all zoning districts as accessory structures and shall be exempt from site plan review under the local zoning code or other land use regulations, subject to the following conditions:**

[a] Setbacks: Tier 2 Solar Energy Systems shall be subject to the setback regulations specified for the accessory structures within the underlying zoning district. All Ground-mounted Solar Energy Systems shall only be installed in the side or rear yards in residential districts.

[b] Height: Tier 2 Solar Energy Systems shall be subject to the height limitations specified for accessory structures within the underlying zoning district.

[c] Screening and Visibility:

(I) All Tier 2 Solar Energy Systems shall have views minimized from adjacent properties to the extent reasonably practicable;

(II)Solar Energy Equipment shall be in a manner to reasonably avoid and/or minimize blockage of views from surrounding properties and shading of property to the north, while still providing adequate solar access;

(d) Lot Size: Tier 2 Solar Energy Systems shall comply with the existing lot size requirement specified for accessory structures within the underlying zoning district.

7. **Permitting requirements for Tier 3 Solar Energy Systems.**

All Tier 3 Solar Energy Systems are permitted through the issuance of a Site Plan Approval from the Planning Board within the CC (Corridor Commercial) District zoning district, and subject to site plan application requirements set forth in this section.

(a) Underground Requirements. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, except for the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

(b) Vehicular Paths. Vehicular paths within the site shall be designed to minimize the extent of impervious materials and soil compaction.

(c) Signage. 1) No signage or graphic content shall be displayed on the Solar Energy Systems except the manufacturer's name, equipment specification information, safety information, and 24-hour emergency contact information. Said information shall be depicted within an area no more than 8 square feet. 2) As required by National Electric Code (NEC), disconnect and other emergency shut off information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

(d) Glare. All Solar Panels shall have anti-reflective coating(s).

(e) Lighting. Lighting of the Solar Energy Systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

(f) Tree-cutting. Removal of existing trees larger than [6] inches in diameter should be minimized to the extent possible.

H. Additional standards for Tier 1 and Tier 2 solar energy collectors shall be permitted subject to the following requirements:

1. Tier 1: A roof plan shall be submitted to the Building Inspector including the height of the parapets and structural design load requirements certified by a design engineer and the location of all property lines and neighboring buildings.

2. Tier 1 and Tier 2: Upon project completion, the Design Engineer shall certify in writing to the Building Inspector that the solar installation has been built in accordance with New York State Building Code and the plan's design specifications.

I. Decommissioning.

(1) Solar Energy Systems that have been abandoned and/or not producing electricity for a period of 1 year shall be removed at the Owner and/or Operators expense, which at the Owner's option may come from any security made with the Village as set forth in Section 10(b) herein.

(2) A decommissioning plan signed by the owner and/or operator of the Solar Energy System shall be submitted by the applicant, addressing the following:

a. The cost of removing the Solar Energy System;

b. The time required to decommission and remove the Solar Energy System any ancillary structures;

c. The time required to repair any damage caused to the property by the installation and removal of the Solar Energy System.

(3) Security. a. The deposit, executions, or fling with the Village Clerk of cash, bond, or other form of security reasonably acceptable to the Village attorney and/or engineer, shall be in an amount sufficient to ensure the good faith performance of the terms and conditions of the permit issued pursuant hereto and to provide for the removal and restorations of the site subsequent to removal. The amount of the bond or security shall be 125 % of the cost of removal of the Tier 3 Solar Energy System and restoration of the property with an escalator of 2 % annually for the life of the Solar Energy System. The decommissioning amount shall be reduced by the amount of the estimated salvage value of the Solar Energy System; b. In the event of default upon performance of such conditions, after proper notice and expiration of any cure periods, the cash deposit, bond, or security shall be forfeited to the Village, which shall be entitled to maintain an action thereon. The cash deposit, bond, or security shall remain in full force and effect until restoration of the property as set forth in the decommissioning plan is completed; c. In the event of default or abandonment of the Solar Energy System, the system shall be decommissioned as set forth in Section 10(b) and 10(c) herein.

I. Site plan application.

The plan submitted to the Building Inspector as a requirement for the approval of the site plan shall indicate all existing and proposed grading, excavating, filling, paving, fencing, and screening as it may relate to the proposed collector, shall indicate the location of all property lines and neighboring buildings, and shall comply with the requirements and standards of this section and of Village Code § 360-5.7.

Any site plan application shall include the following information:

1) Property lines and physical features, including roads, for the project site,

2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures,

3) A one or three-line electrical diagram detailing the Solar Energy System layout, solar collector installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices,

4) A preliminary equipment specification sheet that documents all proposed solar panels, significant components, mounting systems, and inverters that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit,

5) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the Solar Energy System. Such information of the final system installer shall be submitted prior to the issuance of building permit,

6) Name, address, phone number, and signature of the project applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the Solar Energy System,

7) Zoning district designation for the parcel(s) of land comprising the project site (on a complete bulk table),

8) Property Operation and Maintenance Plan. Such plan shall describe continuing photovoltaic maintenance and property upkeep, such as mowing and trimming,

9) Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Planning Board,

10) Prior to the issuance of the building permit or final approval by the Planning Board, but not required as part of the application, engineering documents must be signed and sealed by a New York State (NYS) Licensed Professional Engineer or NYS Registered Architect.

J. Additional Site Plan Review Standards.

In addition to the Site Plan elements contained in this Chapter, the following additional Site Plan Review elements shall apply:

1) Lot size a. The property on which the Tier 3 Solar Energy System is placed shall meet the lot size requirements of the underlying zoning district.

2) Setbacks. a. The Tier 3 Solar Energy Systems shall comply with the setback requirements of the underlying zoning district for principal structures.

3) Height. The Tier 3 Solar Energy Systems shall comply with the building height limitations for principal structures of the underlying zoning district.

4) Fencing Requirements. All mechanical equipment, including any structure for storage batteries, shall be enclosed by a 7-foot-high fence, as required by NEC, with a self-locking gate to prevent unauthorized access.

5) Screening and Visibility. a. Solar Energy Systems smaller than 5 acres shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area;

6. Solar Energy Systems larger than 5 acres shall be required to: (i) Conduct a visual assessment of the visual impacts of the Solar Energy System on public roadways and adjacent properties. At a minimum, a line-of-sight profile analysis shall be provided. Depending upon the scope and potential significance of the visual impacts, additional impact analyses, including for example a digital viewshed report, may be required to submitted by the applicant; (ii) Submit a screening & landscaping plan to show adequate measures to screen through landscaping, grading, or other means so that views of Solar Panels and Solar Energy Equipment shall be minimized as reasonably practical from public roadways and adjacent properties to the extent feasible (the screening & landscaping plan shall specify the locations, elevations, height, plant species, and/or materials that will comprise the structures, landscaping, and/or grading used to screen and/or mitigate any adverse aesthetic effects of the system). The landscaped screening shall be comprised of a minimum of 1 evergreen tree, at least 6 feet high at time of planning, plus 2 supplemental shrubs at the reasonable discretion of the Village Planning Board, all planted within each 10 linear feet of the Solar Energy System. Existing vegetation may be used to satisfy all or a portion of the required landscaped screening. A list of suitable evergreen tree and shrub species may be provided by the Village.

7) Tier 3 Solar Energy System owners shall develop, implement, and maintain native vegetation to the extent practicable pursuant to a vegetation management plan by providing native perennial vegetation and foraging habitat beneficial to game birds, songbirds, and pollinators. To the extent practicable, when establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.

8) Safety.

A. Solar Energy Systems and Solar Energy Equipment shall be certified under the applicable electrical and/or building codes as required.

B. Solar Energy Systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department and the local ambulance corps.

C. If Storage Batteries are included as part of the Solar Energy System, they shall meet the requirements of any applicable fire prevention and building code when in use and, when no longer used, shall be disposed of in accordance with the laws and regulations of the Village and any applicable federal, state, or county laws or regulations.

<u>9. Permit Time Frame and Abandonment</u>

A. The Site Plan approval for a Solar Energy System shall be valid for a period of 18 months, provided that a building permit is issued within that time period. In the event construction is not completed in accordance with the final site plan, as may have been

amended and approved as required by the Planning Board, within 18 months after approval, the applicant or the Planning Board may extend the time to complete construction for 180 days. If the owner and/or operator fails to perform substantial construction after 24 months, the approvals shall expire.

B. Upon cessation of electricity generation of a Solar Energy System on a continuous basis for 12 months, the Village may notify and instruct the owner and/or operator of the Solar Energy System to implement the decommissioning plan. The decommissioning plan must be completed within 360 days of notification.

C. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the Village may, at its discretion, utilize the bond and/or security for the removal of the Solar Energy System and restoration of the site in accordance with the decommissioning plan.

10. Enforcement.

Any violation of this Solar Energy Law shall be subject to the same enforcement requirements, including the civil and criminal penalties, provided for in the zoning or land use regulations of Village. This article shall be enforced by the Building Inspector, Assistant Building Inspector, Fire Inspector and other enforcement officials in the Building Department. A person who violates this article shall be charged with a violation and, if convicted, shall be punished by a fine of not less than $500 and not more than $1,000, for each day that the violation continues.

11. Severability.

The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgment of any court of competent jurisdiction to be unconstitutional, shall not affect the validity or enforceability of any remaining provision.

This Local Law shall be effective immediately upon filing with the Secretary of State.