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Recommended Citation

John R. Nolon & Jessica A. Bacher, Solar Energy: New York City Sets Pace in Adopting Sound Policies, N.Y. L.J., Aug. 20, 2008, at 5, <http://digitalcommons.pace.edu/lawfaculty/664/>.

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Solar Energy: New York City Sets Pace in Adopting Sound Policies

Written for Publication in the New York Law Journal
August 20, 2008

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Abstract: Through state legislation and local land use powers, municipalities in New York have authority to facilitate solar energy usage and reduce carbon emissions. This article analyzes several specific New York and municipal legislative provisions enabling New York's municipalities to encourage or discourage solar energy. Interestingly, many of the tools discussed in this article are variations of pre-existing traditional land use tools such as, variances, subdivision design requirements, or fee exemptions.

Local governments in New York can take actions that facilitate the installation of solar energy systems or adopt land use and construction code requirements that hinder installation. The cooperation of local governments that enjoy nearly plenary authority to regulate private land uses is essential if solar power is to fulfill its potential to supply state energy needs and reduce greenhouse gas emissions. Increasing the current total of around 12 Megawatts of grid-connected solar power to over 2,000 Megawatts, roughly 5% of the state's power requirements, will remove annually about two million tons of CO₂, 1,800 tons of NO_x, and 5,300 tons of SO₂.

New York City leads local governments in adopting sound solar energy policies. The Energy Plan in PlaNYC is designed to foster the market for renewable energy recognizing that solar energy has great potential to produce power needed in New York City.¹ Because solar energy is currently not as cost effective as gas-fired electricity, the plan includes incentives to encourage solar panel installation.

¹ City of New York, PlaNYC (2007), available at http://www.nyc.gov/html/planyc2030/downloads/pdf/report_energy.pdf (last visited July 17, 2008). PlaNYC is a plan for the future of New York City that responds to issues related to population growth, aging infrastructure, and an increasingly vulnerable environment.

The specifics include property tax abatement for solar panel installations and facilitation of solar panel energy use on city-owned buildings by attracting private developers with long term contracts to build, own, operate, and maintain the solar panels. The city will provide incentives as high as 35% of installation costs for solar energy systems. A graduated structure will be used for the incentives that will provide early adopters greater benefits. "To further promote solar energy, the City will work with the State Legislature and the Public Service Commission to reduce two existing barriers: the amount of solar that can be connected to the grid, currently capped at 8.1 Megawatts, and the amount of excess power that can be sold back to the grid, currently limited to 10 Kilowatts of residential power." The Mayor's office of Long Term-Planning and Sustainability is working in conjunction with the City University of New York and the city's Economic Development Corporation to collaborate with the federal Energy Department's "Solar America Initiative" to make solar energy cost-competitive with other forms of electricity by 2015.² Key among the Solar America goals is the use of land use law to facilitate solar energy production or, at a minimum, not to obstruct it.

Local zoning, historic preservation, and aesthetic regulations may inadvertently discourage or prevent solar installations. Typically, Boards of Architectural Review (BAR) are given only advisory powers; however, in Scarsdale, the BAR's jurisdiction includes the power to approve and disapprove building permit applications.³ Because the BAR is charged with ensuring the conservation of property values through the preservation of architectural character and appearance, the BAR will prefer aesthetically pleasing design qualities over designs that, while environmentally friendly, are deemed visually offensive.⁴ This includes applications for solar panels. BAR approval power can have the unintended consequence of hindering the use of alternative energy sources like solar power.

Since state policy favors the production of alternative energy, it would be logical for the state legislature to prevent the restriction of solar panels for aesthetic purposes only, to adopt model legislation encouraging local zoning laws that further solar power, or some combination of the two. This article explores existing state land use and construction laws and local land use and code regulations that affect the installation of solar energy facilities.

Local Solar Energy Laws in New York

State law governs local land use power over solar facilities in two ways: through the delegation of power to regulate land uses--zoning--and through the

² Sewell Chan, Bloomberg Turns Attention to Solar Power, N.Y. Times, April 8, 2008, available at <http://cityroom.blogs.nytimes.com/2008/04/08/bloomberg-turns-attention-to-solar-power/?scp=1&sq=Bloomberg%20Turns%20Attention%20to%20Solar%20Power&st=cse>.

³ Scarsdale Village Code §§ 18-11 to -15.

⁴ Scarsdale Village Code §§ 18-1, -2, -13, -15.

adoption of building, electric, and energy codes that regulate the construction of permitted land uses. The New York State Zoning Enabling Act authorizes local governments to permit and regulate solar energy systems.⁵ The National Electric Code, which is applicable in New York through the New York State Energy Code, governs and facilitates the installation of solar panels and limits the power of local governments to adopt more restrictive provisions.

Local governments in New York have taken several approaches to encouraging or limiting the development of solar energy systems through zoning. These are found in various parts of local zoning codes, including the purposes, definitions, height and setback provisions; site plan and subdivision regulations; special permits or accessory uses standards; solar access requirements; the regulation of trees; exemptions and waivers; design and installation controls; favorable consideration in awarding variances; and architectural review requirements, such as Scarsdale's. In addition, local laws encourage solar energy provisions through exemptions from fees, provision of property tax rebates, and other techniques. This article proceeds and concludes by describing a variety of local law provisions that illustrate these approaches.

Purpose and Objectives Sections

- Statement of Purpose Section
 - Within the list of purposes for zoning are the facilitation/accommodation of solar energy systems and equipment and the protection of solar access for those solar systems.
 - Village of Albion § 290-2; City of Auburn § 305-2; Town of Bedford § 125-1; Town of Bethlehem § 128-8; Town of Haverstraw § 167-1; Village of Massena § 300-1; Town of New Windsor § 300-2; Village of Nyack § 59-1; Town of Oyster Bay § 246-1.4; Town of Wawarsing § 112-2; Village of West Haverstraw § 250-1; Town of Whitestown § 200-2.
- Objectives Section
 - Objectives of zoning ordinance are to maintain adequate open space and light for solar access.
 - Town of Newstead § 450-4; Village of Perry § 490-2; Village of Tarrytown § 305-3.

Definitions Section

- Solar and Related Words Defined
 - Many municipalities define solar energy systems or related terms in their Definitions and Word Usage Sections.
 - Town of Albion § 103-13; Village of Albion § 290-12 (“Solar Access”); Town of Bedford § 125-3; Village of Briarcliff Manor § 220-2 (“Solar

⁵ N.Y. Gen. City Law § 20(24) (McKinney 2008) (effective Apr. 1, 2001); N.Y. Town Law § 263 (McKinney 2008) (effective Mar. 1, 2004); N.Y. Village Law § 7-704 (McKinney 2008) (effective Jan. 1, 1981).

Energy Collector”); Town of Ithaca § 270-5 (“Solar Storage Battery”); Village of Massena § 300-4 (“Solar Energy System”); Town of Newstead § 450-5 (“Solar Skyspace”); Town of Niskayuna § 220-4 (“Solar Energy System, Active”); Village of Perry § 490-10; Town of Wawarsing § 112-5; Village of Westfield § 155-6 (“Solar Energy”).

- Solar and Related Words Included in Definition of Other Words
 - Certain words include solar equipment within their definition; this is often a way that municipalities impose restrictions on the installation of solar equipment.
 - City of Albany § 375-7 (“rooftop appurtenance”); Town of Albion § 103-13 (“alternative energy systems”); Village of Albion § 290-12 (“alternative energy systems”); Town of Ballston § 138-3 (“structure”); Town of Blooming Grove § 235-4 (“structure”); Village of Massena § 300-4 (“building, front line of”).

Exceptions to Height Limitations

- Municipalities may grant exceptions from height limitations with many conditions (e.g., screening, not covering a certain amount of area, not over a certain height above roof).
 - Town of Bedford § 125-20; Town of Carmel § 156-12; Town of Oyster Bay § 246-4.5; Village of Tarrytown § 305-15; Town of West Bloomfield § 140-117.
- Municipalities may grant exceptions from height limitations with only one condition: equipment erected only to height necessary.
 - Village of Airmont § 210-40; Town of Albion § 103-40; Village of Albion § 290-54; Town of Blooming Grove § 235-20; Town of North Salem § 250-25; Village of Nyack § 59-22; Village of Spring Valley § 255-21; Village of Sylvan Beach § 136-26; Village of West Haverstraw § 250-21.
- Municipalities may grant exceptions from height limitations with no conditions.
 - Town of Greenburgh § 285-40; Town of Newstead § 450-33; Village of Perry § 490-31.

Exceptions to Required Setbacks

- Solar collectors may be located within any required setback subject to limitations in chapter.
 - Town of West Bloomfield § 140-118.

Solar Equipment Permitted by Special Permit

- Solar energy systems and equipment may be permitted by issuance of a special permit.
 - City of Albany §§ 375-61 to -83; Village of Ocean Beach § 164-32 (Business C District); Village of Westfield §§ 155-11 to -19 (nine zoning districts).

- Planning board may impose conditions on special permits that will prevent harm to adjacent property, including accommodations that ensure solar access.
 - Town of West Bloomfield § 140-114.

Solar Equipment Permitted As Accessory Use

- Local governments can permit solar equipment as accessory use in designated districts or all districts subject to limitations in the zoning law.
 - Town of Bedford § 125-27 (all districts); Town of Brighton § 203-146 (planned residential development district); Village of Massena §§ 300-5 to -7 (Residential A, B, and C); Town of Niskayuna § 220-10 (designated districts including High-Density Residential, Neighborhood Commercial, and Research and Development); Village of Tarrytown § 305-17 (all districts); Town of Wawarsing 112-13 (all districts).

Site Plan and Approval Requirements

- Site plan must include location of solar energy equipment; included in site plan checklist. Many municipalities also require inclusion of the design and construction materials.
 - City of Auburn § 305-13; Town of Ballston § 138-105; Town of Beekman § 155-59; Town of Chester § 98-30; Village of Garden City § 200-82.4; Town of Greenport § 101-3; Town of New Hartford § 118-15; Town of Newstead § 450-84; Town of New Windsor § 300-86 (“efforts shall be made to retain the existing aesthetic character of the neighborhood while providing the best possible location for such collector units”); Village of Perry § 490-17; Town of Whitestown § 200-24.
- Planning Board should consider solar access when engaged in approval process. This can include protection of solar access on adjacent or neighboring properties and/or among buildings on the proposed development site. Some municipalities specifically consider protection of adequate sunlight for use by solar energy systems.
 - Town of Albion § 103-87; Village of Albion § 290-90; Town of Bedford § 125-87; Town of Bethlehem § 128-71; Village of Briarcliff Manor § 220-14; Town of Chester § 98-30; Town of Colonie § 192-2; Town of East Fishkill § 194-26; Village of Massena § 300-31; Town of Oyster Bay § 246-6.10.2.7; Village of Westburg § 248-255; Village of Westfield § 155-108.
- Planning boards, when reviewing site plans, must consider whether tree planting will impact future solar access.
 - Village of Tarrytown § 305-61.

Subdivision Design Requirements

- Street design standards that require east-west axis where feasible to maximize solar access.

- Town of Wawarsing § 95-23 (planning board considers arrangement of lots to promote energy conservation and maximization of solar access); Village of Westbury § 218-22.
- Street design standard to “facilitate passive solar design.”
 - Town of Ballston § 104-14.
- Solar access provision that gives planning board the authority to require that subdivisions be platted to enhance solar access for systems and can warrant site plan modification.
 - Town of Ithaca § 234-25.
- Cluster subdivision requirements:
 - Communicate intent to promote solar access and provide sufficient separation between buildings to allow for solar access. Town of Colonie § 166-32.
 - Subdivision plan should “promote energy efficiency and assure solar access for dwelling units.” Town of East Fishkill § 163-33.
 - Solar collectors must be included in subdivision plat. Town of Ithaca § 234-34.

Building Permit Required for Installation of Solar Equipment

- A building permit is required for the installation of solar energy collectors.
 - Town of North Salem § 250-81.

ZBA May Consider Solar Access When Hearing a Request for an Area Variance

- ZBA may consider and make provisions for the “accommodation of solar energy systems and equipment and access to sunlight necessary therefore when hearing a request for an area variance.”
 - Town of Batavia § 235-62.

Solar Access Requirements

- Requires that sunlight be available for rooftop solar equipment; some are more general than others. Some laws require a specific amount of sunlight on November 1st of each year. Village of Massena provides that solar access should be “protected to the maximum extent practical.”
 - Village of Massena § 300-20; Town of Newstead § 450-32; Village of Perry § 490-30; Town of West Seneca § 120-35.1; Town of Whitestown § 200-32.

Regulation of Trees; Tree Removal Permits

- Approving authority making decision whether to grant or deny tree removal permit or tree protection plan must consider the impact (positive or negative) on solar access of nearby properties.
 - Village of Briarcliff Manor § 202-5; Town of Clarence § 131-10.

Exemption for Solar Equipment to Rooftop Mechanical Equipment Ban in Mixed-use Districts

- Architectural design requirements in mixed-use districts ban rooftop mechanical equipment but make an exception for solar panels.
 - Village of Amityville § 183-79.4; Town of Babylon § 213-144.17.

Regulations of Solar Energy Systems: Installation, Placement, Adjacent Property Control, Restrictions, Application Instructions

- Municipalities have enacted solar energy system regulations to promote and protect their use, but also to address concerns regarding aesthetics, lighting, and possible depreciation of property values. Some are more protective of solar equipment and some more restrictive. These regulations address installation, placement, adjacent property control, restrictions, and application instructions.
 - City of Albany § 375-93; Village of Briarcliff Manor § 220-9.1; Village of Garden City § 200-45.3; Town of Ithaca § 270-219.1; Village of Munsey Park § 200-42; Village of Westfield § 155-57.
- Placement of Solar Energy Systems
 - Exception for solar heating device to yard requirements for rear yards in residence districts. Village of Pelham § 98-16, 98-23, 98-30, 98-44.
 - Exception for solar-energy collection system, which may project up to three feet into required yard as long as system is not wider than 1/3 of the length of a side wall. Town of Rotterdam § 270-11.
 - No solar energy installation system may be installed in any required front or side yard. Village of Westbury § 248-251.

Regulation of Solar Devices within Specific Zones

- Restrictions on solar devices:
 - Design principals and standards for steep slope overlay zone require that solar collection devices be placed in order “to minimize their visual impact.” Town of New Hartford § 118-47.
 - Building and structure special requirements for the technology and office park district require that solar energy collection devices be screened and in “architectural harmony” with attached building. Town of Brighton § 203-168.
- Exemptions/exceptions for solar devices
 - Design standards for continuing care retirement community district require that mechanical equipment be screened from view with the exception of solar collectors. Town of North Salem § 250-19.2.

Architectural Review

- Architectural Review Advisory Committee reviews all applications for building permits for solar energy collectors referred by building inspector. Village of Briarcliff Manor § 5-6.
- Architectural Design and Review Board must approve all solar energy systems and determine that they are “aesthetically appropriate for the intended location.” Village of Garden City, § 200-45.3.

- Solar energy collectors require site development plan approval and architectural review by planning board. Village of Spring Valley § 255-38.

Exemption from Fees

- No building permit fee or site plan approval application fee for developments that have primary purpose to install green energy production, which includes solar power.
 - Town of Rotterdam §§ 270-137.1 & 270-176.

Solar Electric System Rebate and Incentive Program

- An applicant is eligible for a \$2,500 rebate if he/she installs a 5Kw or greater solar electric system that complies with all state and local laws. The first twenty applicants to produce the required documentation will receive the rebate.
 - Town of Southampton § 176-2.

State Tax Exemption NOT Applicable

- The real property tax exemptions for solar energy systems provided for in Real Property Tax Law § 487 are not applicable.
 - Town of Beekman § 135-7; Town of West Bloomfield § 125-6.