

The New York Sun Initiative

Part One

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Model Municipal Ordinance Project Designed to Facilitate Wind and Solar Projects and Green Buildings

By Michael B. Gerrard and Danielle Sugarman

Soaring oil prices and the reality of climate change have underscored the need to reduce U.S. fossil fuel dependence by improving energy efficiency and by developing and expanding renewable sources of energy. The International Energy Agency declared in 2010 that “[i]ncreasing energy efficiency, much of which can be achieved through low-cost options, offers the greatest potential for reducing CO₂ emissions over the period to 2050.”¹ Furthermore, increasing our reliance on renewable resources such as wind and solar energy is not only a prudent measure in helping America to improve its energy security, but is a necessary component of a basket of measures that must be employed in order to limit atmospheric CO₂ to a concentration that would avert the most damaging climate change. Presently, wind and solar energy account for only around one percent of the U.S. electricity supply.² Yet the Department of Energy projects that as much as twenty percent of America’s electric power could be generated from wind energy alone by the year 2030.³

With the pressing need for action and with comprehensive climate legislation stalled at the federal level, local governments are playing an increasingly important role in pursuing energy efficiency and renewable energy alternatives. Municipalities not only account for a large portion of our national energy consumption, but control many aspects of local energy efficiency standards and zoning laws which promote or inhibit the installation of renewable energy resources.

These factors have not been lost on local officials. The last several years have seen a proliferation of municipal ordinances that address energy efficiency through green building practices. Yet, these ordinances vary widely in their design, content and coverage, and in the quality of their drafting. Similarly, municipal laws regulating wind turbine and solar panel installation vary widely among cities, towns and villages, with some jurisdictions offering strong protection for renewable energy generation, others enacting unnecessarily restrictive provisions, and most having no provisions at all. This patchwork of laws can complicate the work of architects, engineers and lawyers who must try to conform their clients’ projects to local requirements. In this way, many opportunities to promote energy independence and to combat climate change are lost.

In an effort to address these problems, Columbia Law School’s Center for Climate Change Law (CCCL) has undertaken a municipal ordinance project that seeks to address local siting challenges faced in the area of green buildings, commercial wind and residential solar energy

generation. The goal of the project is to create “best practices” for municipal ordinances that avoid the drafting problems and legal pitfalls that often pervade other ordinances. These model ordinances were derived from the best aspects of existing municipal ordinances. While they were designed with New York municipalities in mind, they offer a framework that can be easily modified by any local government to fit its particular needs.

CCCL has already released a model green building ordinance, which is currently being considered for adoption by a number of New York municipalities. A commercial wind siting ordinance is currently open for comment and will soon be circulated in revised form. Finally, a model residential solar ordinance will be released in the coming weeks for an initial comment period. The design and function of each ordinance are laid out below.

In drafting each ordinance, CCCL first compiled as many existing ordinances and policies in the relevant areas as possible and posted them online. The provisions were then analyzed to find their best features and compiled into a cohesive model ordinance. Draft versions were next posted online for comment by interested parties and ultimately revised into a final model. Each of the published ordinances contain detailed commentaries on their features, the rationale behind the choices they embody, the associated legal issues, as well as optional add-ons that municipalities may adopt to make their ordinances more widely encompassing.

Model Green Building Ordinance

In developing the Model Green Building Ordinance, CCCL looked to what has emerged as the nation’s leading system of green building standards, the Leadership in Energy and Environmental Design (LEED) rating system of the non-profit U.S. Green Building Council (USGBC). LEED is a points-based system rather than a prescriptive standard. Different building or site features such as high energy efficiency, water conservation and material selection entitle a project to LEED points. If enough LEED points are accumulated, the building can receive a level of LEED certification ranging progressively from plain vanilla (certified) to silver, gold and platinum. The CCCL model ordinance starts with the LEED NC-3.0 standard, which is the latest standard for new constructions and major modifications. Covered buildings must meet the LEED silver level (the level CCCL found to be most often applied by existing green building ordinances). To achieve LEED silver, buildings must attain half of all possible LEED points. The ordinance provides for an option

which would require that a certain minimum number of points be obtained from energy efficiency measures. Due to the ever progressing nature of green building standards, the model ordinance provides that a municipality may take administrative action (without requiring a new vote by its city council or other governing body) to move to a different green building standard if that new standard meets certain criteria specified in the ordinance.

The LEED silver requirement would apply to new construction of municipal buildings, commercial buildings, and high-rise multifamily residential buildings that are at least 5,000 square feet in size. It would also apply to "major modifications" of those buildings, defined as rehabilitation work in at least two major building systems, construction work affecting at least half of the building's floor area, or construction increasing the square footage of the building by at least half.

As LEED is not well suited for smaller buildings, the model ordinance instead requires an adequate rating under the Energy Star Homes Rating System for all new construction of one- and two-family dwellings and low-rise multifamily residential buildings. Energy Star Homes was developed by the U.S. Environmental Protection Agency and the U.S. Department of Energy. It prescribes a set of energy efficiency guidelines.

While the USGBC certifies buildings under its standards, this has at times led to long delays. As such, the CCCL model ordinance does not require formal USGBC certification, but rather requires that, in order to obtain a building permit, the applicant must demonstrate that the building is designed to achieve the 50 LEED points required for LEED silver certification. Thus, after completion, a building would receive a certificate of occupancy only after it was determined to have achieved these points. If during construction, certain planned LEED points cannot be achieved leaving the building short, a temporary certificate of occupancy may be available until those points are achieved or appropriate mitigation measures are taken.

Under the CCCL green buildings ordinance, determinations of compliance with the LEED standards, Energy Star ratings, and other requirements would be made by a Green Buildings Compliance Official. This Official would be designated by the municipality and will often, but not always be, the building inspector. This official is empowered to conduct inspections, stop work orders, and take other enforcement actions. Recognizing that smaller towns and villages may not be able to support an inspector with sufficient training to make these determinations, the model ordinance is accompanied by a model inter-municipal agreement that would allow several municipalities to pool their resources when hiring inspectors.

The ordinance also provides applicants with the ability to apply for a partial exemption from the require-

ments of the ordinance based on hardship or infeasibility. Optional provisions would also allow municipalities to exempt certain historic buildings, or buildings where the added cost of complying with the green building standard would exceed a set percentage.

Appeals from determinations of the Green Building Compliance Official may be made to an appellate body designated by the municipality (typically the board of zoning appeals). In drafting the ordinance, CCCL provided for numerous optional add-on provisions as well as procedural options if any actual inconsistencies are found between the LEED or Energy Star requirements, on the one hand, and the preemptive federal or state codes on the other.

Model Commercial Wind Siting Ordinance

CCCL's model commercial wind siting ordinance is designed to help municipalities properly regulate the siting and operation of wind energy facilities so that wind energy is promoted while potential problems are mitigated. The ordinance covers both large/commercial (a single turbine with a rated capacity of 150 kilowatts) and small wind energy conversion systems (WECSs) (a single turbine with a rated capacity of not more than 150 kilowatts and a total height of less than 125 feet) as well as residential wind energy conversion systems (a single turbine with a rated capacity of not more than 10 kilowatts and a total height of less than 50 feet). In arriving at the kilowatt production values and height limitations for large/commercial, small and residential WECSs, CCCL chose the higher end values adopted by local municipalities so as to bring more WECSs within the less onerous siting requirements of the small WECS and to thereby encourage wind energy.

The model wind ordinance sets out a permitting and site plan approval process for the different WECSs. The ordinance recommends that municipalities allow small wind energy facilities in all districts other than residential, and that large wind energy facilities, while more suited to rural districts, should be permitted in any district deemed appropriate by the municipality.

In order to assure the safety of the proposed WECS, a number of requirements must be met before an applicant can obtain a special use permit for construction. The applicant must, among other things, provide assessments regarding the nature of the proposed site location and its surrounding area. A full Environmental Assessment Form (EAF) under the State Environmental Quality Review Act (SEQRA) is required as well as a detailed construction and installation plan. Applicants must make plans for the operation and maintenance of the facility including provisions for emergency response and fire control plans. Optional provisions provide additional considerations when a WECS is proposed on a historic site or near a wetland or important avian area.

In addition to safety, an applicant for a special use permit is required to provide analysis of potential negative externalities that may arise from the construction of the wind turbine. The applicant must analyze the visual impact of the proposed WECS and provide ways in which that impact can be lessened. The applicant must also consider potential electromagnetic interference with communication systems as well as possible geothermal impact from tower installation.

Two important areas which have generated the most controversy in siting wind energy facilities are noise and avian impacts. Applicants under the CCCL ordinance must describe the proposed project's noise impacts and its noise control features. Applicants must additionally analyze bird and bat populations whose migration, nesting, or habitat might be affected by the proposed WECS. In order to assure mitigation efforts, the CCCL ordinance then requires the applicant to solicit input from the New York State Department of Environmental Conservation on those studies and follow any protocols established by DEC.

Additional factors that require consideration for a special use permit to be granted relate to the potential for ice throw, blade throw, and catastrophic tower failure. An engineer must certify that the proposed wind facility can withstand wind-loading requirements set out under New York State's Uniform Construction Code. Optional provisions also would require the engineer's report to include analysis of shadow flicker, potential fiscal and economic impacts of the proposed project as well as potential land use and water impacts.

Once a special use permit application is completed, the ordinance lays out a procedure for its review. Applications are submitted to the municipal clerk for processing, and the municipal planning board is required to conduct at least one public hearing prior to reaching its decision as to whether to grant the special use permit, grant the special use permit with conditions or deny it. The municipal planning board is charged with conducting a review under SEQRA.

In reaching its conclusion on whether to allow a WECS to go forward, the planning board is provided with a number of standards. A WECS must meet certain safety standards which place limits on the system's height, blade placement, rotational speed and override controls. A WECS must have safety provisions such as anti-climbing features, protection of electrical equipment from attractive nuisance and warning lights for aircraft where certain tower heights are reached. The ordinance requires evidence of a signed interconnection agreement with the local electric utility prior to construction of the WECS.

WECSs must be properly set back from surrounding properties. The ordinance offers a range of setback requirements which are tied to the size of the conver-

sion system, its proximity to property lines, overhead transmission lines or public roads, and the distance from residences, schools, hospitals, churches or public libraries. The wind ordinance allows for a waiver of setback requirements where there is written consent from an affected property owner at the beginning of construction.

In order to appropriately address the issue of nuisance, prior to planning board approval of the wind turbine project, an applicant for a WECS would be required to ensure that the noise level generated by the WECS will not exceed 45 A-weighted decibels (dBA) measured at the site property line. The noise level generated by the WECS must not increase ambient sound levels within 2,500 feet of the site property line by more than 3 dBA at any sensitive noise receptors including residences, hospitals, libraries, schools, and places of worship.

Further provisions involve avoiding interference with electromagnetic communications, and minimizing visual impacts of the tower through a prohibition on advertising on the tower, the standardization of color requirements for the tower and blade components, and the provision for landscape screening where possible. An optional provision would also require the minimization of shadow flicker.

Once a WECS has been approved, it must remain in compliance with the ordinance. The WECS must be maintained in operational condition. The ordinance affords an owner 90 days to remedy a situation where the wind energy conversion system becomes inoperative, damaged, unsafe, or violates a permit condition or standard. If the WECS is not repaired or brought into permit compliance within the allocated time frame, the municipality may, after public hearing, order remedial action or revoke the special use permit of the system. All wind energy facilities are required to be inspected annually for structural and operational integrity by a New York State licensed professional approved by the municipality.

Other sections of the model ordinance deal with issues relating to site abatement and decommissioning, liability insurance, provisions for the transfer and replacement of a WECS or of ownership rights, as well as the installation of wind measurement towers prior to the construction of a WECS.

The model ordinance directs the municipality to appoint a staff member or outside consultant to enforce the provisions of the ordinance. That code enforcement officer may issue a stop work order at any time for violations of the ordinance, the special use permit, the building permit or the site plan approval. The ordinance further affords the municipality authority to take any action necessary to prevent, correct or abate any unlawful erection, structural alteration, reconstruction or use. Anyone who is found to be in violation of the ordinance would be subject to monetary penalties.

Model Residential Solar Siting Ordinance

CCCL's forthcoming model solar ordinance is designed to promote the accommodation of small scale solar energy systems and to protect access to sunlight to assure the most efficient use of those systems. The ordinance regulates all solar energy systems of up to ten kilowatts which are installed in residential or commercial districts. The goal of the ordinance is to strip away as many of the procedural barriers to solar installation while insuring that safety concerns are adequately accounted for.

In order to maximize opportunities for solar installation, the model solar ordinance permits outright, as an accessory use, the installation of passive and building integrated photovoltaic systems. Rooftop and building mounted solar collectors are also allowed as an accessory use in all districts but require building permits prior to installation. The ordinance does not impose a height limitation on building mounted solar collectors so long as those collectors are erected only to such height as is reasonably necessary to accomplish the purpose they are intended to serve. Ground mounted and free standing solar collectors are allowed as accessory structures in all zoning districts subject to building permit and applicable setback requirements.

In order to ensure the proper siting of solar installations, solar energy systems will only be granted a building permit if they are determined by the municipality not to present any unreasonable safety risks relating to weight load, wind resistance and access in the event of a fire. All solar installations are required to be performed by a qualified solar installer as defined in the ordinance. All electrical connections must be inspected by a municipal code enforcement officer.

The ordinance allows for net-metering arrangements which can reduce load on the public utility grid. Any connection to the grid must be inspected by the appropriate public utility. The ordinance has several provisions which deal with appeals from the denial of a building permit. If a municipality wants to further encourage solar installation, an optional provision allows municipalities to afford all building permit applications expedited review and waiver of building permit application fees.

CCCL's model solar ordinance has an optional section on ways municipalities can make planning decisions that take full advantage of potential solar power generation. This includes setting the orientation of buildings and streets with respect to sun angles so as to provide

maximum southern exposure for solar collectors. It also allows for the consideration of the type and placement of shade trees along streets so as not to block access to existing solar collectors, and the platting of subdivisions so as to allow for solar access by all future residents. Finally, there is an option to regulate a property owner's planting of shade trees which would have the effect of casting a shadow of ten percent or greater on a neighbor's existing solar collector during the hours of 9:00 a.m. to 3:00 p.m. The model solar ordinance will be available on CCCL's website in the upcoming weeks.

CCCL welcomes comments on any of the model ordinances. The model ordinances and the supporting databases are available at <http://www.law.columbia.edu/centers/climatechange/resources/municipal>. Comments on the green building ordinance can be directed to Michael Gerrard at Michael.gerrard@law.columbia.edu. Comments on the wind and solar ordinance can be directed to Danielle Sugarman at dsugar1@law.columbia.edu.

Endnotes

1. International Energy Agency, *Energy Technology Perspectives 2010—Scenarios & Strategies to 2050*, (2010) at 49.
2. U.S. Energy Information Administration, *Renewable Trends in Consumption and Electricity*, (2008). Available at: <http://www.eia.doe.gov/cneaf/solar.renewables/page/trends/rentrends.html>.
3. See U.S. Dep't of Energy, *20% Wind Energy by 2030: Increasing Wind Energy's Contribution to U.S. Electricity Supply*, (2008). Available at: http://www.awea.org/learnabout/publications/upload/20percent_Wind_factsheet.pdf.

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Danielle Sugarman is a Post-Doctoral Fellow at Columbia University's Center for Climate Change Law. Prior to joining the Center, she spent four years working as a corporate litigator for a large New York City law firm. She received her JD from the University of Pennsylvania School of Law in 2005, and is admitted to practice in New York.

Model Small-Scale Solar Siting Ordinance

By Danielle Sugarman

Center for Climate Change Law at Columbia Law School

1. Purpose & Intent

A. Solar energy is a renewable and non-polluting energy resource that can prevent fossil fuel emissions and reduce a municipality's energy load. Energy generated from solar energy systems can be used to offset energy demand on the grid where excess solar power is generated.

B. The use of solar energy equipment for the purpose of providing electricity and energy for heating and/or cooling is a priority and is a necessary component of the [Town/City/Village's] current and long-term sustainability agenda.¹

C. The ordinance aims to promote the accommodation of solar energy systems and equipment and the provision for adequate sunlight and convenience of access necessary therefor.²

2. Definitions

ACCESSORY STRUCTURE

A structure, the use of which is customarily incidental and subordinate to that of the principal building and is attached thereto, and is located on the same lot or premises as the principal building.³

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 may be attached to or separate from the principal structure.⁴

BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV) SYSTEMS

A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof or the façade and which does not alter the relief of the roof.⁵

¹ Albany City

² Amenia Town, Auburn City, Bedford Town, Bethlehem Town, Canandaigua Town, Glennville Town, Haverstraw Town, Hewlett Neck Village, Horseheads Town, Kent Town, Kingston City, Southold Town, Southport Town

³ Clinton Town, Kingston Town.

⁴ Albion Town, Barre Town, Lackawanna City, Medina Village

⁵ Albany City

COLLECTIVE SOLAR

Solar installations owned collectively through subdivision homeowner associations, college student groups, “adopt-a-solar-panel” programs, or other similar arrangements.

EXPEDITED REVIEW

The grant of a priority status to an application that results in the review of the application ahead of applications filed prior thereto, including applications which may be currently under review by the applicable agency.⁶

FLUSH-MOUNTED SOLAR PANEL

Photovoltaic panels and tiles that are installed flush to the surface of a roof and which cannot be angled or raised.⁷

FREESTANDING OR GROUND-MOUNTED SOLAR ENERGY SYSTEM

A solar energy system that is directly installed in the ground and is not attached or affixed to an existing structure.⁸

NET-METERING

A billing arrangement that allows solar customers to get credit for excess electricity that they generate and deliver back to the grid so that they only pay for their net electricity usage at the end of the month.

PERMIT GRANTING AUTHORITY

The [Town/City/Village] authority charged with granting permits for the operation of solar energy systems.

PHOTOVOLTAIC (PV) SYSTEMS

A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells that generate electricity whenever light strikes them.⁹

QUALIFIED SOLAR INSTALLER

A person who has skills and knowledge related to the construction and operation of solar electrical equipment and installations and has received safety training on the hazards involved. Persons who are on the list of eligible photovoltaic installers maintained by the New York State Energy Research and Development Authority (NYSERDA), or who are certified as a solar installer by the North American Board of Certified Energy Practitioners (NABCEP), shall be deemed to be qualified solar installers for the purposes of this definition. Persons who are not on NYSERDA’s list of eligible installers or NABCEP’s list of certified installers

⁶ Huntington Town

⁷ *Derived from* Town of Brookhaven

⁸ Albany City

⁹ Albany City

may be deemed to be qualified solar installers if the [Town/City/Village] determines such persons have had adequate training to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the installation safely. Such training shall include the proper use of special precautionary techniques and personal protective equipment, as well as the skills and techniques necessary to distinguish exposed energized parts from other parts of electrical equipment and to determine the nominal voltage of exposed live parts.¹⁰

ROOFTOP OR BUILDING MOUNTED SOLAR SYSTEM

A solar power system in which solar panels are mounted on top of the structure of a roof either as a flush-mounted system or as modules fixed to frames which can be tilted toward the south at an optimal angle.¹¹

SMALL-SCALE SOLAR

For purposes of this Ordinance, the term “small-scale solar” refers to solar photovoltaic systems that produce up to ten kilowatts (kW) per hour of energy or solar-thermal systems which serve the building to which they are attached, and do not provide energy for any other buildings.

SOLAR ACCESS

Space open to the sun and clear of overhangs or shade including the orientation of streets and lots to the sun so as to permit the use of active and/or passive solar energy systems on individual properties.¹²

SOLAR COLLECTOR

A solar photovoltaic cell, panel, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.¹³

SOLAR EASEMENT

An easement recorded pursuant to NY Real Property Law § 335-b, the purpose of which is to secure the right to receive sunlight across real property of another for continued access to sunlight necessary to operate a solar collector.¹⁴

SOLAR ENERGY EQUIPMENT/SYSTEM

Solar collectors, controls, energy storage devices, heat pumps, heat exchangers, and other materials, hardware or equipment necessary to the process by which solar radiation is collected, converted into another form of energy, stored,

¹⁰ Ithaca Town

¹¹ *Derived from* Albany City

¹² Albion Town, Barre Town, Dickenson Town, Le Ray Town, Madena Village

¹³ Albany City, Ithaca Town

¹⁴ *Derived from* California Solar Shade Control Act Section 801.5 (Cal. Civ. Code §801), Iowa Code § 564A

protected from unnecessary dissipation and distributed. Solar systems include solar thermal, photovoltaic and concentrated solar.¹⁵

SOLAR PANEL

A device for the direct conversion of solar energy into electricity.¹⁶

SOLAR POWER FAST-TRACK PROGRAM

A program to expedite all applications for commercial and residential solar panel installation to encourage the use of reliable and clean renewable energy.¹⁷

SOLAR STORAGE BATTERY

A device that stores energy from the sun and makes it available in an electrical form.¹⁸

SOLAR-THERMAL SYSTEMS

Solar thermal systems directly heat water or other liquid using sunlight. The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and heating pool water.

3. Applicability

- A. The requirements of this Ordinance shall apply to all Small Scale solar energy systems (residential, commercial, multi-family and condominium) modified or installed after the effective date of this Ordinance.
- B. Solar energy systems for which a valid permit has been properly issued or for which installation has commenced prior to the effective date of this article shall not be required to meet the requirements of this Ordinance except in accordance with §§5(D), (E) and (F).
- C. All solar energy systems shall be designed, erected and installed in accordance with all applicable codes, regulations and standards.¹⁹
- D. 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 “collective solar” installations or the sale of excess power through a “net billing” or “net-metering” arrangement in accordance

¹⁵ Albany City

¹⁶ Livonia Town

¹⁷ Huntington Town

¹⁸ Ithaca Town

¹⁹ Bronxville Village, Garden City Village

with New York Public Service Law § 66-j or similar state or federal statute.²⁰

4. Permitting

- A. No Small Scale solar energy system or device shall be installed or operated in the [Town/City/Village] of [] except in compliance with this article.
- B. To the extent practicable, and in accordance with [Town/City/Village] law, the accommodation of solar energy systems and equipment and the protection of access to sunlight for such equipment shall be encouraged in the application of the various review and approval provisions of the [Town/City/Village] Code.²¹
- C. Rooftop and Building-Mounted Solar Collectors: Rooftop and building mounted solar collectors are permitted in all zoning districts in the [Town/City/Village] subject to the following conditions:²²
 1. Building permits shall be required for installation of all rooftop and building-mounted solar collectors,²³ except:
 - a. A building permit shall not be required for Flush-Mounted Photovoltaic Panels.²⁴
 2. Any height limitations of the [Town/City/Village] Code shall not be applicable to solar collectors provided that such structures are erected only to such height as is reasonably necessary to accomplish the purpose for which they are intended to serve, and that such structures do not obstruct solar access to neighboring properties.²⁵
 3. Optional add-on: [Placement of solar collectors on flat roofs shall be allowed as of right in non-historic districts, provided that panels do not extend horizontally past the roofline.]²⁶

²⁰ Briarcliff Manor Village

²¹ Milton Town

²² Ithaca Town

²³ Albany City, Briarcliff Manor Village, Town of Brookhaven, Ithaca Town, Town of Southampton, Tonawanda Town

²⁴ Town of Brookhaven, Town of Southampton

²⁵ Albion Town, Albion Village, Blooming Grove Town, Medina Village, Monroe Village, North Salem Town, Nyack Village, Perry Village, Port Jervis City, Shandaken Town, Spring Valley Village, Tivoli Village, Union Town, Wheatfield Town

²⁶ Albany City

- D. Building-Integrated Photovoltaic (BIPV) Systems: BIPV systems are permitted outright in all zoning districts.
- E. Ground-Mounted and Free Standing Solar Collectors: Ground-mounted and free standing solar collectors are permitted as accessory structures in all zoning districts of the [Town/City/Village], subject to the following conditions:
1. Building permits are required for the installation of all ground-mounted solar collectors.²⁷
 2. The location of the solar collector meets all applicable setback requirements for accessory structures in the zoning district in which it is located.²⁸
 3. Optional add-on: [The height of the solar collector and any mounts shall not exceed [20] feet when oriented at maximum tilt.²⁹]
 4. Optional add-on: [Solar energy equipment shall be located in a manner to reasonably minimize view blockage for surrounding properties and shading of property to the north, while still providing adequate solar access for collectors].³⁰
 5. Optional add-on: [Freestanding solar energy collectors shall be screened when possible and practicable through the use of architectural features, earth berms, landscaping, or other screening which will harmonize with the character of the property and surrounding area.]³¹
- F. Solar-Thermal Systems: Solar-thermal systems are permitted in all zoning districts subject to the following condition:
1. Building permits are required for the installation of all solar-thermal systems.
- G. Solar energy systems and equipment shall be permitted only if they are determined by the [Town/City/Village] not to present any unreasonable safety risks, including, but not limited to, the following:

²⁷ Briarcliff Manor Village, Erie Town, Ithaca Town,

²⁸ Albany City, Briarcliff Manor Village, Ithaca Town

²⁹ Ithaca Town

³⁰ Albany City

³¹ Briarcliff Manor Village

1. Weight load³²
2. Wind resistance³³
3. Ingress or egress in the event of fire or other emergency.³⁴

H. Optional add-on: [Installations in designated historic districts as shall require a certificate of appropriateness from the [Town/City/Village's] [Historic Commission] unless such installations are not visible from the street.]³⁵

5. Safety

- A. All solar collector installations must be performed by a qualified solar installer.³⁶
- B. Prior to operation, electrical connections must be inspected by a [Town/City/Village] [Code Enforcement Officer] and by an appropriate electrical inspection person or agency, as determined by the [Town/City/Village].³⁷
- C. Any connection to the public utility grid must be inspected by the appropriate public utility.³⁸
- D. Solar energy systems shall be maintained in good working order.
- E. Rooftop and building-mounted solar collectors shall meet New York's Uniform Fire Prevention and Building Code standards.³⁹
- F. If 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 used shall be disposed of in accordance with the laws and regulations of [Town/City/Village] and other applicable laws and regulations.⁴⁰

³² Great Neck Plaza Village

³³ Great Neck Plaza Village

³⁴ Great Neck Plaza Village

³⁵ *Derived from Albany City*

³⁶ Ithaca Town

³⁷ Ithaca Town

³⁸ Ithaca Town

³⁹ Copake Town

⁴⁰ Ithaca Town

- G. Optional add-on: [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 by no later than 90 days after the end of the twelve-month period.]⁴¹

6. Appeals

- A. If an individual is found to be in violation of the provisions of this Ordinance, appeals should be made in accordance with the established procedures of the [Town/City/Village] code.⁴²
- B. If a building permit for a solar energy device is denied because of a conflict with other goals of the [Town/City/Village], the applicant may seek relief from the [Town/City/Village] [Board of Zoning Appeals], which shall regard solar energy as a factor to be considered, weighed and balanced along with other factors.⁴³

7. Optional add-on: [Solar Panel Fast Track Program

- A. This section applies to the installation of solar panels for commercial buildings and residences.
- B. All building permit application fees for the construction and installation of solar panels on residential and non-residential buildings shall be waived.⁴⁴
- C. All building permit applications for the installation of solar panels on residential and non-residential buildings shall receive expedited review by the [Town/City/Village] [Department of Engineering Services] in order to expedite such applications and the issuance of building permits for solar panel installation.]⁴⁵

8. Optional add-on: [Zoning for Future Solar Access

- A. New structures will be sited to take advantage of solar access insofar as practical, including the orientation of proposed buildings with respect to sun angles, the shading and windscreen potential of existing and proposed

⁴¹ Albany City, Ithaca Town

⁴² Albany City

⁴³ *Derived from* Albany City

⁴⁴ Huntington Town

⁴⁵ Huntington Town

vegetation on and off the site, and the impact of solar access to adjacent uses and properties.⁴⁶

- B. To permit maximum solar access to proposed lots and future buildings, wherever reasonably feasible, consistent with other appropriate design considerations, new streets shall be located on an east-west axis to encourage building siting with the maximum exposure of roof and wall area to the sun.⁴⁷ The [Town/City/Village] [Zoning Board] shall also consider the slope of the property and the nature and location of existing vegetation as they affect solar access.⁴⁸
- C. The impact of street trees on the solar access of the surrounding property shall be minimized to the greatest possible extent in selecting and locating shade trees. Every effort shall be made to avoid shading possible locations of solar collectors.⁴⁹
- D. When the [Planning Board/Zoning Board] reviews and acts upon applications for subdivision approval or site plan approval, it shall take into consideration whether the proposed construction would block access to sunlight between the hours of [9:00 a.m. and 3:00 p.m.] Eastern Standard Time for existing approved solar energy collectors or for solar energy collectors for which a permit has been issued.
- E. The [City/Town/Village] [Planning Board] may require subdivisions to be platted so as to preserve or enhance solar access for either passive or active systems, consistent with the other requirements of the [City/Town/Village] Code.⁵⁰
- F. The plan for development of any site within cluster subdivisions shall be designed and arranged in such a way as to promote solar access for all dwelling units.⁵¹ Considerations may include the following:
 - 1. In order to maximize solar access, the higher-density dwelling units should be placed on a south-facing slope and lower-density dwelling units sited on a north-facing slope.⁵²

⁴⁶ Bedford Town, Bethlehem Town, Briarcliff Manor Village, Clinton Town, Kent Town, LaGrange Town, Millbrook Village

⁴⁷ Elmsford Village, Hasting-On-Hudson Village, Hewlett Bay Park Village, Millbrook Village, Town of New Castle

⁴⁸ Elmsford Village, Hasting-on-Hudson Village, Hewlett Bay Park Village

⁴⁹ Milbrook Village

⁵⁰ Ithaca Town

⁵¹ East Fishkill Town, Monroe Town, Monroe Village

⁵² Town of Southport

2. Subject to the [City/Town/Village's] setback requirements, structures should be sited as close to the north lot line as possible to increase yard space to the south for reduced shading of the south face of a structure.⁵³
3. A tall structure should be sited to the north of a short structure.]⁵⁴

Comment on §8

Cities/Towns/Villages should be aware that New York's Real Property Law §335-b allows for the creation of solar easements between residents who wish to negotiate for airspace rights. New York's solar easement provision is a voluntary contract which may be entered into in order to ensure uninterrupted solar access for solar energy devices. Under NY Real P. § 335-b solar easement agreements are required to contain at a minimum, information describing the easement location and the vertical and horizontal angles over which the easement extends, provisions governing the granting and termination of the easement, and provisions for compensation to either party in the event that interference occurs. Cities/Towns/Villages that wish to promote the creation of solar easements should consider adopting language supporting the same. Solar easements are beneficial in that property entitlements are clearly defined and neighbors can negotiate for compensation in the event of interference with the terms of the easement without requiring the city/town/village to be seen as prioritizing one particular use over another.

Comment on §8(D)

While it would be optimal if installed solar collectors were not subsequently blocked by a neighbors construction, landowner's possess no common law right to unobstructed sunlight.⁵⁵ Thus, laws that prevent property owners from making use of their property in ways which would block sunlight to neighboring solar collectors may be seen as seizing private airspace rights.⁵⁶ Thus, one possible resolution would be if landowners would purchase airspace easements or covenants from their neighbors.⁵⁷

Comment on §8(F):

⁵³ New Windsor Town, Southport Town

⁵⁴ New Windsor Town, Southport Town

⁵⁵ For a more detailed summary of the evolution of laws regarding rights to light, see Troy Rule, *Shadows on the Cathedral: Solar Access Laws in a Different Light*, U. Ill. L. Rev., Vol. 2010, p. 851, 865-66 (April 26, 2010) available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1466224.

⁵⁶ Troy Rule, *Airspace in a Green Economy*, University of Missouri School of Law Legal Studies Research Paper No. 2011-05, 39-44 (April 04, 2011) available at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1782071. [UCLA Law Review, Vol. 59, Issue 2, forthcoming 2011.](#)

⁵⁷ *Id.*

Any restrictions on construction designed to facilitate solar access should recognize that there are often numerous energy-saving and anti-sprawl benefits associated with greater urban densities (which often require greater building heights and/or more creative designing) and that solar access is only one of several considerations in planning new developments.

9. Tree Maintenance and Removal

- A. Optional add-on: [To the extent that the [City/Town/Village] has discretion regarding the removal or relocation of trees, solar access shall be a factor taken into consideration when the [City/Town/Village] determines whether trees can be removed.]⁵⁸

Comment on §9(B):

In reaching decisions on tree maintenance and removal, the [Town/City/Village] may wish to weigh solar access against other factors such as; the environmental impact of the proposed tree removal, the potential impact on erosion and drainage, the potential alternatives to the proposed action, and whether the [City/Town/Village] or private landowner will replant replacement trees of a similar or different species, or add other vegetative material, fencing or terracing, or undertake other similar measures to offset the negative effects of tree removal.

⁵⁸ *Derived from Briarcliff Manor Village, Clarence Town, Hamburg Town, New Rochelle City. See also City of Gainesville, Florida. Fl §30-254*

Model Municipal Green Building Ordinance

By Marne Sussman and Jason James
Center for Climate Change Law at Columbia Law School

Introduction

The Center for Climate Change Law (CCCL) develops legal tools to address the challenges presented by climate change. Green building laws are one such tool. Green buildings generally use water, energy and materials more efficiently than conventional buildings and utilize design, construction, and siting features to reduce the negative environmental impact of buildings. Because buildings use nearly 40% of all energy consumed in the United States¹, these efficiency gains are critical in mitigating the impact of climate change. Green buildings are also better suited to adapt to climate change's unavoidable impacts.

The model municipal green building ordinance is the product of an empirical analysis of common practices in existing municipal green building regulation and research on possible legal impediments. Its provisions are designed to achieve effective yet feasible improvements in building practices and are drawn, in large measure, from existing ordinances.² Recognizing that different municipalities have different resources, constraints, and environmental interests, the model ordinance offers flexibility in the form of "optional add-ons" that individual municipalities can choose to enact along with the standard ordinance to enhance environmental benefits. Municipalities are encouraged to enact the model ordinance with or without the optional add-ons.

The model ordinance seeks to reduce the environmental impact of new construction and major modifications of municipal buildings, commercial buildings, and large residential buildings by mandating that these buildings be constructed to a specific green building standard. Municipal, commercial, and high rise multi-family residential buildings must comply with the Leadership in Energy and Environmental Design for New Construction and Major Renovations (LEED-NC) version 3.0 or LEED for Schools standard, as appropriate, and other residential buildings must comply with the Energy Star Homes standard. Implementing these standards is easier for municipal planners than embarking on the difficult and expensive process of creating a new green building rating system.³ Under these mandates, new buildings and major modifications will more efficiently use resources and be built with more sustainable materials and practices than conventional buildings.

The model ordinance is enforced before, during, and after construction. Prior to receiving a building permit, an applicant must show that the proposed building is designed to meet the applicable standard. If construction substantially deviates from these approved plans, the applicant may be required to adjust or halt construction. If it is a hardship or infeasible for

¹ U.S. Dep't of Energy, Buildings Energy Data Book § 1-1 (2009), available at <http://buildingsdatabook.eren.doe.gov/>.

² Where the text of the model ordinance is substantially derived from existing ordinances, a footnote identifies the sources. Full citation of the sources and links to the text of the ordinances can be found in the municipal green building ordinance databases on the CCCL website. Center for Climate Change Law, [Municipal Climate Change Laws Resource Center](http://www.law.columbia.edu/centers/climatechange/resources/municipal), <http://www.law.columbia.edu/centers/climatechange/resources/municipal>.

³ Some New York State municipalities have enacted ordinances that implement the LEED-NC standard and some, including municipalities in Long Island, have enacted ordinances that implement the Energy Star Homes standard.

an applicant to meet the standard, the applicant may request a partial exemption from regulation. Some buildings are entirely excluded from regulation, such as state and federal buildings.

This model ordinance is but one of several developed by various organizations.⁴ However, unlike other model ordinances that detail technical specifications, this ordinance presents a framework for the implementation of existing technical standards and a streamlined procedure for their enforcement. This ordinance is an amalgamation and model restatement of currently enacted green building ordinances and also accommodates the rapidly developing field of substantive green building standards by allowing for the adoption of new standards within the ordinance's framework.

The full text of the ordinance, without commentary, is available for download on the CCCL website. Throughout the ordinance, bracketed text denotes optional add-ons that a municipality may elect to enact. Bracketed text or blank spaces indicate areas where custom terms, such as the name of the municipality, should be inserted or where the municipality can change the provisions to fit its needs. The following manual presents each section of the model ordinance, then provides commentary on the text of that section, clarifying areas of potential ambiguity and discussing the benefits and drawbacks of optional add-ons. Appendices further detail specific issues related to the ordinance and set out example forms for municipalities to use. Legal issues, including preemption, non-delegation, and antitrust, are discussed in a separate document available on the CCCL website.

This model ordinance is in preliminary draft form and comments are welcome. Please email them to michael.gerrard@law.columbia.edu.

Summary of mandates for new construction and major modifications:

<u>Type of building</u>	<u>Type of Work</u>	<u>Certifiable Standard</u>
The following types of buildings with greater than 5,000 square feet of conditioned space: <ul style="list-style-type: none"> • Municipal buildings • Commercial buildings • High rise multi-family residential buildings 	All new construction All major modifications	U.S. Green Building Council's (USGBC) LEED (Leadership in Energy and Environmental Design) for New Construction and Major Renovations Rating System, Version 3.0, Silver, USGBC LEED for Schools Rating System, Version 3.0, Silver
All one- and two-family dwellings and low rise multi-family residential buildings	All new construction	EPA Energy Star Rating System qualified home

⁴ E.g., International Code Council, International Green Construction Code, available at <http://www.iccsafe.org/igcc>.

1. Purpose & Intent⁵

- A. The [city/town/village] of [] is committed to enhancing the public welfare and assuring that further development is consistent with the [city/town/village]'s desire to create a more sustainable community by incorporating green building measures into the design, construction, and maintenance of buildings that minimize short-term and long-term negative impacts on the environment.
- B. In recent years, green building design, construction, and operational techniques have become increasingly widespread. Many homeowners, businesses, and building professionals have voluntarily sought to incorporate green building techniques into their buildings. A number of local and national systems have been developed to serve as guides to green building practices. The [city/town/village] finds that requiring certain buildings to incorporate green building measures is necessary and appropriate to realize the benefits of green building.
- C. The intent of this article is to mandate green building practices designed to encourage the following: resource conservation; reduction of waste generated by construction; reduction in the use of energy in both initial construction and daily operations; energy efficiency; promoting the health and productivity of residents, workers, and visitors to the [city/town/village]; construction of environmentally sustainable municipal and privately owned buildings; and reduction of greenhouse gas emissions to mitigate the impacts of climate change. A further intent of this article is for the owners and occupants of new commercial buildings, offices, mixed-use buildings, and residences to gain the economic benefits of energy and water savings, and the health benefits of good indoor air quality.

Comment on § 1

The model ordinance connects the text of the ordinance to its broad policy goals by discussing the value of green building practices. This section may help when interpreting possible ambiguity in the ordinance but in most cases has no direct legal impact.

2. Applicability

- A. This article shall apply to all applications for building permits in the following categories:
 1. All new construction of municipal buildings greater than 5,000 square feet of conditioned space or major modifications to municipal buildings greater than 5,000 square feet of conditioned space;
 2. All new construction of commercial and high rise multi-family residential buildings greater than 5,000 square feet of conditioned space or major modifications to commercial and high rise multi-family residential buildings greater than 5,000 square feet of conditioned space;

⁵ Language substantially derived from the Greenburgh, NY and Livermore, CA ordinances.

3. All new construction of [or major modifications to] one- and two-family dwellings, and low rise multi-family residential buildings regardless of size.
- B. Optional add-on: [This article shall apply to all existing municipal purpose buildings greater than 5,000 square feet of conditioned space.]
 - C. Optional add-on: [This article shall apply to all existing buildings greater than 5,000 square feet of conditioned space.]

Comment on § 2(A)

The model ordinance distinguishes among three classes of buildings, reflecting common practice among existing green building ordinances. Regulation of municipal buildings typically incurs less public resistance, so these buildings are regulated separately from private buildings. Commercial and high rise multi-family residential buildings must comply with the LEED-NC or LEED for Schools standard while one- and two-family dwellings and low rise multi-family residential buildings must comply with the Energy Star Homes standard. This is because these standards were designed to apply to these respective building types.

The model ordinance only regulates new construction and major modifications of commercial and high rise multi-family residential buildings with more than 5,000 square feet of conditioned space. By contrast, some green building ordinances elect to set a cost minimum to determine building coverage.⁶ The benefits of using a cost threshold include the fact that costs are often estimated prior to floor area and that the cost of a building often roughly correlates to the amount of opportunities to “green” a construction project. However, these particular concerns are inapplicable to the model ordinance because of its broad coverage. 5,000 square feet is an intentionally low threshold; the majority of new construction and major modification of commercial and high rise multi-family residential buildings will exceed 5,000 square feet of conditioned space. Furthermore, the conditioned space of a project is easier to verify by the building inspector than a project’s cost, which could be manipulated. However, for municipalities that wish to set a high threshold and have limited coverage, the aforementioned rationales for a cost threshold could be compelling.

Building coverage is based on conditioned space, that is, space artificially heated or cooled by fixed equipment, instead of gross floor area. By focusing coverage on conditioned space, regulation is limited to buildings where the energy savings garnered justify the administrative burden of regulation. Like all quantitative values recommended, this size threshold can be modified to the preference of the municipality.

The ordinance only regulates new construction of one- and two-family dwellings and low rise multi-family dwellings, leaving major modifications of these particular buildings unregulated by this ordinance, though they will still need to comply with otherwise applicable building and energy conservation codes. Many modifications to these buildings will be so minor that requiring compliance with the green building requirements would impose substantial costs on homeowners. However, many municipalities with green building ordinances currently in

⁶ E.g., New York City, N.Y., Local Law No. 86 (2005), available at http://www.nyc.gov/html/oec/downloads/pdf/green_building/LL86_of_2005.pdf.

place do require modifications of these types of buildings to meet green building standards. The municipalities that choose to include these modifications in their ordinances often set size or cost thresholds for modification projects so that minor renovations do not trigger the green building requirements. Municipalities have the option to include major modifications for one- and two-family dwellings and low rise multi-family dwellings in their ordinance.

Comment on §§ 2(B), (C)

If a municipality chooses to regulate existing municipal purpose buildings it should include the applicable definition for “municipal purpose building” and §§ 5(D) and 6(B). If a municipality chooses to regulate existing private buildings, it should include the applicable definitions and §§ 5(E) and 6(C). Given likely political resistance to regulation of existing buildings, the model ordinance offers such regulations as optional add-ons. The distinction between a “municipal building” and a “municipal purpose building” is discussed in detail in the commentary on the definition of “municipal purpose building” below.

3. Definitions

APPLICANT

Any person, corporation, partnership, firm, or any other entity making an application to the municipality pursuant to this article.⁷

BENCHMARKING

Collecting building data regarding the total energy and water usage for the previous calendar year, to be used in comparing data from that building in other calendar years, and data for other similar buildings.⁸

BENCHMARKING TOOL

The U.S. Environmental Protection Agency's Energy Star Portfolio Manager internet-based database system and any complementary interface used to track and assess the energy and water use of certain buildings relative to similar buildings.⁹

BUILDING

Any edifice of any kind or any piece of work artificially built or composed of parts joined together in some definite manner and permanently attached to the ground, used or intended for supporting or sheltering any use or occupancy.¹⁰

CERTIFIABLE

To attain the number of points, as determined by the Green Building Compliance Official, that are necessary to meet the requirements of the applicable level of the green building rating system. It is not required that the building be certified by the USGBC or other applicable green building authority.

COMMERCIAL BUILDING

Any building other than a residential, manufacturing, utility, or municipal building, including without limitation: offices, retail facilities, warehouses, mixed-use buildings,

⁷ This language is substantially derived from the Greenburgh, NY green building ordinance.

⁸ This language is substantially derived from the New York, NY benchmarking ordinance.

⁹ This language is substantially derived from the New York, NY benchmarking ordinance.

¹⁰ This language is substantially derived from the Livermore, CA, Davis, CA, and Brisbane, CA green building ordinances and the New York State Building Code.

schools and other educational buildings, houses of worship, and sports and entertainment facilities.¹¹

CONDITIONED SPACE

Any area within a building that is artificially heated or cooled by fixed equipment.¹²

CONSTRUCTION

The erection of any building or structure or any portion thereof.¹³

COVERED BUILDING

A building that is required to meet the green building standards of this article.

ENERGY STAR HOMES RATING SYSTEM

A set of guidelines for energy efficiency developed by the EPA and the Department of Energy.

ENERGY STAR HOME REPORT

A report completed by a Home Energy Rating System rater which yields a projected Energy Star rating for a home before construction begins.

FIXED EQUIPMENT

Equipment that is fixed or attached to real property permanently as an appendage and is not readily portable. For example a space heater and a floor fan are not fixed equipment.

FUNDED

To provide direct financial contributions to the building; it does not include to guarantee a loan, provide incentives, or otherwise provide indirect financial assistance.

GREEN BUILDING

A whole systems approach to the design, construction, and operation of buildings that helps mitigate the environmental impact of buildings. Green building practices recognize the relationship between natural and built environments and seek to minimize the use of energy, water, and other natural resources and provide a healthy indoor environment.¹⁴ Green building can also refer to a building built to standards that are more environmentally friendly than normal building standards.

GREEN BUILDING COMPLIANCE OFFICIAL

The [] or his or her designee. Optional add-on [The Green Building Compliance Official must be a LEED AP or equivalent or have a LEED AP or equivalent on his or her staff.]

HERS

See Home Energy Rating System.

HIGH RISE MULTI-FAMILY RESIDENTIAL

Multi-family residential construction of four stories or more.

HISTORIC BUILDING

¹¹ This language is substantially derived from the Greenburgh, NY green building ordinance.

¹² This language is substantially derived from the Brisbane, CA green building ordinance.

¹³ This language is substantially derived from the Livermore, CA and Greenburgh, NY green building ordinances.

¹⁴ This language is substantially derived from the Livermore, CA, Los Altos Hills, CA, Brisbane, CA, Greenburgh, NY, and Hayward, CA green building ordinances.

Buildings that are listed in or have been officially declared eligible for listing in the National Register of Historic Places, or are designated as historic under an applicable state or local law.¹⁵

HOME ENERGY RATING SYSTEM (HERS) RATER

A person who has passed the Residential Energy Services Network (RESNET) National Rater Test.

HOME ENERGY RATING SYSTEM (HERS) INDEX

A scoring system established by RESNET in which homes are compared to a HERS Reference Home (based on the 2006 International Energy Conservation Code).

LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED) STANDARDS

A voluntary, third-party rating system developed by the USGBC where credits are earned for satisfying specified green building criteria.¹⁶

LEED ACCREDITED PROFESSIONAL (AP)

Any person who has passed the LEED Professional Accreditation Exam administered by the Green Building Certification Institute.¹⁷

LEED CHECKLIST

A checklist developed by the USGBC for the purpose of calculating a score on the LEED Rating System.

LOW RISE MULTI-FAMILY RESIDENTIAL

Multi-family residential construction, including townhomes, of three stories or less.

MAJOR MODIFICATION

Modification of an existing building where the scope of work of the project includes at least one of the following:

1. Rehabilitation work in at least two of the following three systems: electrical, HVAC (heating, ventilating and air conditioning), and plumbing;
2. Construction work which affects at least fifty percent of the building's floor area; or
3. Construction work which increases the square footage of conditioned space in the building by at least fifty percent.¹⁸

MULTI-FAMILY

Containing three or more dwelling units.

MUNICIPAL BUILDING

Any building that is either:

1. Owned,
2. At least fifty percent funded,
3. Funded with over \$2 million,
4. On land owned, or
5. Where greater than fifty percent of the conditioned floor area is leased

¹⁵ This language is substantially derived from the New York State Building Code and the Hayward, CA green building ordinance.

¹⁶ This language is substantially derived from the Greenburgh, NY green building ordinance.

¹⁷ This language is substantially derived from the Annapolis, MD green building ordinance.

¹⁸ This language is substantially derived from the LEED definition of major modification, New York Law 86, and the Annapolis, MD and Baltimore, MD green building ordinances.

by [city/town/village] or any unit thereof. This definition applies notwithstanding any outside federal or state funding for the building.¹⁹

Optional add-on: [MUNICIPAL PURPOSE BUILDING: Any building that is: at least fifty percent owned by, on land owned by, or where greater than sixty percent of the conditioned floor area is leased for a term of at least [20] years by any unit of local government.]

PROJECT

A design and construction undertaking comprised of work related to one or more site improvements. Multiple modifications of the same building or simultaneous related work in conjoined structures under common ownership or control may constitute a single project for the purposes of the size requirements of this article. Separate modifications within a project may have different design professionals and job numbers, and may result in the issuance of one or more permits.

RATING SYSTEM

A system designed to rate green building criteria for particular buildings. For example, LEED for New Construction (LEED-NC), LEED for Existing Buildings: Operations and Maintenance (LEED EB:OM), LEED for Schools, and LEED for Homes are all different rating systems.

REHABILITATION

Renovation, alteration, or reconstruction.

RESIDENTIAL BUILDING

Any building used for living, sleeping, eating, and cooking. Residential buildings include one-family, two-family, and multi-family residences and dormitories. For the purposes of this article, a residential building does not include long term care facilities, assisted-living facilities, or hotels, motels, inns, or any similar commercial enterprises wherein rooms or suites of rooms are occupied transiently. Buildings used for purposes identified in the preceding sentence are considered commercial buildings.²⁰

SPECIAL PURPOSE UNIT OF GOVERNMENT

Independent governmental units that exist separately from, and with substantial administrative and fiscal independence from, general purpose local governments such as county, city, town, and village governments, and that are created to provide a specific service in a specific region.

VERSION

A particular iteration of a specific LEED green building rating system. For example, LEED-NC 3.0 is a version of the LEED-NC rating system.

Comment on “BENCHMARKING” and “BENCHMARKING TOOL”

Efficiently constructed buildings that are subsequently operated in a wasteful manner undermine the effectiveness of the model ordinance. One way to encourage efficiency in existing buildings is to track the building’s energy and water use. The model ordinance contains optional provisions similar to ordinances in Washington, D.C.²¹ and New York City²² that require

¹⁹ This language is substantially derived from the Berkeley, CA, Brisbane, CA, Clayton, MO, Dublin, CA, Livermore, CA, Madison, WI, Pleasanton, CA, and Richmond, CA green building ordinances.

²⁰ This language is substantially derived from the Brisbane, CA and Davis, CA green building ordinances.

²¹ Washington, D.C., Law 17-250, *available at*

<http://www.dccouncil.washington.dc.us/images/00001/20080804150618.pdf>.

existing buildings to track energy and water use through a process called benchmarking. By using the benchmarking tool, energy and water usage of a building are compared to a building of similar size and purpose; such statistics promote increased operational efficiency. This information may also be made public in § 6(C)(2).

Comment on “BUILDING”

The definition of building in the model ordinance is broadly worded, but not all buildings described under this definition must comply with the ordinance’s green building standards. Size and function requirements, in addition to other exceptions from regulation, narrow the application of the ordinance.

Comment on “CERTIFIABLE”

For a building to be ‘certifiable’ does not mean that it must be certified by the USGBC or Energy Star qualified. Instead, ‘certifiable’ means to attain the required number of points for compliance as determined by the Green Building Compliance Official, even in the absence of third-party certification.

Because this article does not require third-party certification, the municipality holds exclusive power to determine compliance. Adopting an established green building rating system is clearly easier for a municipality than developing a new system.²³ Yet, local enforcement is preferred over the procedures of private entities which are comparatively removed from the view of local constituents. To balance these concerns, the model ordinance adopts the thoroughly tested and extensively used LEED-NC and Energy Star Homes standards as the base of its local ordinance while retaining local control of the compliance process.²⁴

Limiting the role of third parties also enhances the ability of the local legislative process to influence the ordinance’s content, which makes it more responsive to local needs than procedures dominated by a third party. These measures strengthen the ordinance in the face of potential legal challenges, such as delegation challenges, described in the legal commentary that is available on the CCCL website. Furthermore, the long waits that sometimes accompany the USGBC certification process are avoided by not requiring official certification.

LEED is at times criticized for awarding points only for use of wood certified by the Forest Stewardship Council (FSC) and not by other wood certifiers such as the Sustainable Forestry Initiative (SFI).²⁵ However, in the judgment of USGBC and other environmental organizations, FSC is the most environmentally responsible forestry certification standard. There does not appear to be a compelling reason for the ordinance to tweak LEED to accommodate other potentially less robust forestry certification systems.

Comment on “COMMERCIAL BUILDING”

²² N.Y. City Admin. Code, Chapter 3 § 28-309, *available at* <http://www.nyc.gov/html/planyc2030/downloads/pdf/476.pdf> .

²³ See Edna Sussman, Reshaping Municipal and County Laws to Foster Green Building, Energy Efficiency, and Renewable Energy, 16 N.Y.U. Envtl. L.J. 1, 10 (2008).

²⁴ See Sarah Schindler, Following Industry’s LEED: Municipal Adoption of Private Green Building Standards, 62 Florida L. Rev. 285(2010).

²⁵ The legal implications of offering points for use of FSC wood are examined in the legal analysis memorandum available on the CCCL website.

The model ordinance broadly defines ‘commercial’ to include buildings used for entertainment, office space, shopping, education, and religious purposes, among other uses. This term’s broad coverage is counterbalanced by the exemptions and exclusions outlined in §§ 8 and 9.

Because of the anticipated political and practical difficulty of requiring manufacturing and utility buildings to comply with LEED-NC, these types of buildings are explicitly excluded from the definition of ‘commercial building’ and hence not regulated in this ordinance. However, those municipalities that prefer to regulate manufacturing and utility buildings can explicitly include them in the definition of commercial building.

Schools are within the broad coverage of ‘commercial building.’ Private schools are regulated as commercial buildings under the ordinance and are subject to the LEED for Schools standard. However, because most public schools in New York State are special purpose units of government, they are excluded from regulation under § 9 of this ordinance. Schools in the five most populous cities in New York State are not special purpose units of government and will be regulated under the ordinance as commercial buildings and subject to the LEED for Schools standard.

Comment on “CONDITIONED SPACE”

The model ordinance measures conditioned space, rather than gross floor area, to avoid regulating buildings that use little energy, such as unenclosed parking garages or sports fields with outdoor bleachers.

Comment on “ENERGY STAR HOMES RATING SYSTEM”

Homes that are Energy Star qualified are typically at least 15% more energy efficient than homes built to the 2006 International Residential Code and include additional energy-saving features that typically make Energy Star homes 20 to 30% more efficient than standard homes.²⁶

Comment on “GREEN BUILDING COMPLIANCE OFFICIAL”

The municipality must delegate administration of the ordinance to a designated individual or department, which this article refers to as the ‘Green Building Compliance Official.’ This responsibility could fall to someone in a newly created position, to the existing building inspector, or to another individual or entity as the municipality deems appropriate. Municipalities with existing green building ordinances have employed Building Inspectors,²⁷ Building Officials,²⁸ Directors of Community Development,²⁹ Building Division Staffs,³⁰ Directors of Planning and Community Environment,³¹ Directors of Planning and Development,³²

²⁶ U.S. Environmental Protection Agency, Features of ENERGY STAR Qualified New Homes, *available at* http://www.energystar.gov/index.cfm?c=new_homes.nh_features.

²⁷ Babylon, NY, Chamblee, GA, and Conyers, GA delegate to Building Inspectors.

²⁸ Baltimore, MD, Davis, CA, Healdsburg, CA, Los Altos Hills, CA, Napa, CA, Rohnert Park, CA, Santa Rosa, CA, Sonoma, CA, and Windsor, CA delegate to Building Officials.

²⁹ Brisbane, CA, Livermore, CA, and Pleasanton, CA delegate to Directors of Community Development.

³⁰ Greenburgh, NY and Huntington, NY delegate to Building Division Staffs.

³¹ Palo Alto, CA delegates to a Director of Planning and Community Environment.

³² Pasadena, CA delegates to a Director of Planning and Development.

and Directors of Planning in this position.³³ A group of nearby municipalities may also choose to share the services of a single Green Building Compliance Official.³⁴

There may be additional costs incurred by the municipality to train the Green Building Compliance Official and/or pay his or her salary. Each municipality will have to decide whether and how it will change its building permit fee structure, add new green building fees, or use general revenues to deal with these increased costs.

The ordinance includes an optional add-on whereby a municipality can require that either the person who is named as the Green Building Compliance Official or someone on his or her staff must be a LEED Accredited Professional (AP) or equivalent. Requiring the Green Building Compliance Official to possess this knowledge about green building is preferable, and the training and testing required to obtain LEED accreditation are not extensive. However, not every municipality will have the funds to ensure this. Thus the provision is an optional add-on.

In addition to monitoring and enforcing the ordinance, the Green Building Compliance Official will often be the municipal official who enforces the New York State Energy and Conservation Construction Code.

Comment on “HERS RATER”

A HERS rater uses specially-designed software to analyze the expected energy use of a home based on construction plans, yielding a projected Energy Star rating for the home. The rater then works with the applicant to identify the energy efficiency improvements needed to ensure the home will meet Energy Star performance guidelines. The rater conducts onsite inspections, including a blower door test and a duct test. Results of these tests, along with data from the software analysis, are used to generate a HERS Index for the home.

Comment on “HIGH RISE MULTI-FAMILY RESIDENTIAL”

The model ordinance requires high rise multi-family residential buildings and commercial buildings to meet the same green building standard due to architectural similarities between these two types of buildings.

Comment on “HOME ENERGY RATING SYSTEM INDEX”

The HERS Index scores homes relative to the HERS Reference Home, representative of energy efficiency in a home based on the 2006 International Energy Conservation Code. The reference home sets the baseline at a HERS index of 100. Each one percentage point decrease in energy consumption relative to the HERS Reference Home corresponds to a one point decrease in the HERS Index. So, for example, a home that scores 85 on the HERS Index is 15% more energy efficient than the HERS Reference Home.

EPA has classified each county in America within one of eight climate zones based on heating days, cooling days, and other factors. For residences in climate zones 1-5, the required HERS Index for an Energy Star qualified home is 85. For residences in climate zones 6-8, the required HERS Index for an Energy Star qualified home is 80. For further explanation see the comment on § 5(A).

³³ San Jose, CA delegates to a director of planning.

³⁴ This process is explained in Appendix B. See also New York State Department of State Division of Local Government Services, Shared Services and Consolidation, <http://www.dos.state.ny.us/lgss/publications.htm#SharedServices>.

Comment on “LEED STANDARDS”

LEED is a national benchmark for design, construction, and operation of high-performance green buildings created by the U.S. Green Building Council. The LEED-NC standard has four tiers of certification: Certified, Silver, Gold, and Platinum.

Comment on “MAJOR MODIFICATION”

Regulating all modifications would be unduly burdensome, thus the model ordinance regulates only major modifications. In order to capture all modifications deemed major enough to regulate, the ordinance approaches modifications from three directions, leading to more comprehensive coverage. Municipalities who wish to be more or less stringent in requiring major modifications to meet the standards of the article can modify the percentages in this definition or add or remove requirements for major modifications as they see fit.

The definition of major modifications does not cover some potentially large building modifications that nonetheless fail to meet any of the three listed criteria. For example, if 40,000 square feet of a building with 100,000 square feet of total conditioned space – the size of an average big box store – is being renovated, it may not be covered by the ordinance. While this is problematic, no rating system used by the ordinance is adequate to address such a situation. LEED-NC is only intended for a major modification of a building in its entirety, not in pieces.³⁵ Certification under LEED-EB:OM is only intended for projects that cover 90% of total floor space, so this standard is similarly inappropriate, particularly for buildings with multiple tenants.³⁶

While a municipality may elect to implement some other type of green building standard more appropriate for this type of situation, such as LEED for Commercial Interiors (LEED-CI),³⁷ none has received sufficiently common usage to merit recommendation by the model ordinance at this point.

Comment on “MUNICIPAL BUILDING”

The model ordinance uses the term ‘any unit of local government’ in the definition of municipal building. This is meant to include buildings owned, funded, or leased by units of local government, and not just the municipality itself, in the definition of municipal buildings. For example, an economic development agency may lease a building and this building would still be considered a municipal building despite the fact that the municipality itself is not party to the lease.

Comment on “MUNICIPAL PURPOSE BUILDING”

³⁵ See USGBC, LEED 2009 for New Construction and Major Renovations, Minimum Program Requirement 2 (2010).

³⁶ Furthermore, many aspects of LEED-EB:OM, such as green cleaning and sustainable purchasing have little to do with the major modification itself and more to do with day-to-day building operations, making the standard inappropriate to require of construction projects in addition to the possibly numerous legal issues that mandating LEED-EB:OM of private parties could raise.

³⁷ USGBC, LEED 2009 for Commercial Interiors (2010), available at <http://www.usgbc.org/ShowFile.aspx?DocumentID=7246>.

The model ordinance offers an optional add-on to regulate existing municipal purpose buildings. The definition of a municipal purpose building covers many but not all of the buildings covered by the definition of a municipal building. This distinction is made because regulation of new construction and major modifications of municipal buildings is far more prevalent than regulation of existing municipal buildings. Because regulating existing buildings is less common and more onerous than regulating new construction, municipalities may wish to limit the number of existing municipal buildings that are required to meet the LEED-EB:OM standard through use of this less inclusive definition. This definition corresponds to optional add-ons in §§ 2(B), 5(D), and 6(B).

Comment on “PROJECT”

Project is defined here, and used in the definition of major modification, to attempt to prevent certain modifications of existing buildings from avoiding the green building standards of this article. The definition of project is meant to encompass multiple modifications to a single building or simultaneous related work in conjoined structures under common ownership and control which a builder may try to break apart into separate modifications. If the builder can break these projects into two, it allows the modifications to avoid falling under the definition of major modification and having to comply with the applicable green building standards. Thus multiple modifications to a building are considered a single project, and the threshold for determining whether a modification is major is based on the project as a whole and not on the separate modifications.

Comment on “RESIDENTIAL BUILDING”

Buildings that are covered by this definition are required to comply with Energy Star Homes. The definition exempts buildings which are arguably used for residential purposes but are more structurally similar to commercial buildings, such as hotels.

Comment on “SPECIAL PURPOSE UNIT OF GOVERNMENT”

Special purpose units of government fall into one of several broad categories: school districts, fire districts, local public authorities, other special purpose entities, and town special districts; the most common are school districts and fire districts. Special purpose units of government operate independently from the municipalities in which they operate and often have different jurisdictional boundaries. Municipal green building requirements can be applied to certain special purpose units of government. However, for the sake of simplicity and legal clarity, we have chosen to exempt all special purpose units of government from regulation under § 9 of the ordinance. Special purpose units of government that are exempt from the green building regulations may still voluntarily choose to utilize these standards. A municipality may specifically include one or more special purpose entities if it so chooses and is advised that it may do so.

4. Green Building Rating Systems

- A. The [city/town/village] hereby adopts the USGBC's LEED for New Construction (LEED-NC) Rating System, Version 3.0. The [city/town/village] also adopts the USGBC's LEED for Schools Rating System, Version 3.0. The [city/town/village] also adopts the

EPA Energy Star Rating System in effect on the date of adoption of this article. [The [city/town/village] also adopts the USGBC's LEED for Existing Buildings: Operations and Maintenance (LEED EB:OM) Rating System, Version 3.0.] The [municipal clerk] shall maintain copies of the current green building standards in effect under this article and any additional documents necessary for applicants to comply with the standards of this article.

- B. Because green building standards are highly technical and the Green Building Compliance Official has the proper expertise to determine whether new standards are appropriate, he or she shall be in charge of adopting new LEED or Energy Star rating systems, new versions of LEED or Energy Star, a green construction code, or a different green building rating system. Whenever the Green Building Compliance Official considers adopting a new system, version, or code, he or she shall follow the process below.
1. Public notice of the intent to adopt the new rating system, version, or code shall be given in the manner customary for the municipality and public comment on the adoption shall be allowed for [30] days.
 2. The Green Building Compliance Official shall determine whether or not to adopt the new rating system, version, or code based on the following standards:
 - a. The new rating system, version, or code must have been established by a government agency or by a not for profit organization whose standards have achieved widespread acceptance,
 - b. The new rating system, version, or code, looked at as a whole, must be no less protective of the environment than the prior rating system, version, or code,
 - c. The new rating system, version, or code must be designed to reflect recent scientific, engineering, and technological knowledge,
 - d. The new rating system, version, or code cannot be adopted primarily for the benefit of a particular project or applicant, and
 3. If the Green Building Compliance Official decides to adopt the new rating system, version, or code, he or she must make public this adoption by filing the adoption with the [municipal clerk] and giving public notice of the adoption in the manner customary for the municipality.
 4. Nothing in this section shall abrogate the authority of the [municipal governing body] to adopt, modify, or repeal green building standards that

have been adopted by the [municipal governing body] or Green Building Compliance Official.

Optional alternative (use in lieu of section B above): [B. The Green Building Compliance Official shall remain informed of changes in rating systems, versions, and codes, and shall notify the [municipal governing body] of these changes so that the [municipal governing body] can adopt these changes should it so choose.]

C. If a different green building rating system other than LEED or Energy Star is adopted pursuant to § 4(B), the same process described in § 4(B) can be used to change other provisions of this article accordingly if and to the extent required by this adoption.

Comment on § 4(A)

Mandating the Energy Star Homes standard may cause citizens to lose eligibility for some incentives awarded by the state. The New York State Energy Research and Development Authority (NYSERDA) awards incentives for voluntarily building a home that attains a HERS score of at least 84.³⁸ Applicants who are required to meet that standard under the model ordinance would not do so voluntarily and would therefore not receive these financial incentives.³⁹ There does not appear to be a way for a municipality to avoid this consequence and this problem would likely require a state-level solution. However, applicants are still eligible for other NYSERDA incentives for receiving a HERS score higher than 84.⁴⁰

The model ordinance uses the Energy Star Homes standard as the standard for residential buildings as the model ordinance was initially developed for use in New York State, where the Energy Star Homes standard is the most prevalent. However, other areas of the country have particular residential standards that may be used in lieu of the Energy Star Homes standard, such as California's Green Point Rated standard, LEED for Homes, Green Globes, or Earth Craft. Some of these standards encompass more comprehensive green building standards than the Energy Star Homes standard which focuses on energy use. In those areas of the country with a different standard in use, the residential standard required by the ordinance can be changed through § 4(B).

The model ordinance provides text in brackets for those municipalities that choose to regulate existing municipal purpose buildings. The optional add-on should be included in the ordinance of those municipalities that choose to adopt §§ 2(B), 5(D), and 6(B). Among existing ordinances that mandate green building practices for existing buildings, LEED-EB:OM is the most commonly used rating system.

Comment on § 4(B)

³⁸ A HERS Score of 84 is equivalent to a HERS Index of 80. See comment on § 5(A), *infra*, for further explanation.

³⁹ John R. Nolon and Jennie C. Nolon, Local Green Building Laws in New York: Issues and Opportunities, N.Y. L.J., Apr. 15, 2009, at 5.

⁴⁰ NYSERDA separates its financial incentives into three tiers. A HERS score of 84 is the cut-off for the first tier; second and third tier incentives are awarded to homes attaining a HERS score of 87 and 89, respectively. Note that the model ordinance uses the HERS index, and not the HERS score, but the two methods are easily translatable to each other. NYSERDA, Home Energy Rating System Providers for the New York ENERGY STAR Labeled Homes Program 19 (2007), available at <http://www.nyserda.org/funding/1081RFQ.pdf>.

The LEED standards are regularly updated and entirely new green building rating systems are being developed, such as the International Code Council's International Green Construction Code. Automatic adoption of new versions of green building standards in an ordinance is likely a violation of the non-delegation doctrine. Yet, up-to-date standards – either new versions of LEED or entirely new rating systems – are desirable to maintain the ordinance's environmental effectiveness.

The model ordinance addresses these concerns by incorporating notice-and-comment procedures by which the Green Building Compliance Official may update the standards to incorporate new developments in green building codes. This procedure for updating and incorporating new elements properly sets out standards for the Green Building Compliance Official to follow and thus avoids delegation concerns, discussed in the commentary that is available on the CCCL website. The Green Building Compliance Official should be attentive to developments in green building standards so as to keep the ordinance as up to date as possible. This approach also avoids potentially time-consuming scrutiny under a vote by a municipal governing body. The municipality still retains, as always, the power to amend any municipal ordinance and thus change the green building standards any time it chooses to do so.

Concerns have been raised on whether delegating this authority to the Green Building Compliance Official is permissible. While the legality of such a delegation is supported by CCCL's legal analysis, municipalities that do not want to delegate the power to adopt new rating systems, versions, or codes to the Green Building Compliance Official for this or other reasons may simply substitute the optional alternative, which leaves the power to adopt new rating systems, version, or codes with the municipal governing body.

Regardless of whether the power to adopt new rating systems is delegated to the Green Building Compliance Official or left in the hands of the municipal governing body, the municipality may consider requiring an official evaluation of standards every three years. Many building codes and green building standards are revised at the pace of once every three years, making this time interval a useful period to evaluate the municipality's currently used standards. However, because the Green Building Compliance Official is tasked with keeping up to date with developments in green building, this option is only peripherally presented and not included in the main text of the model ordinance.

When a municipality chooses to change the green building rating system used in the model ordinance from LEED or Energy Star to another green building rating system, the municipality should reference Appendix D for a list of the sections of the model ordinance that need to be modified.

5. Standards for compliance

- A. All new construction of and major renovations to covered buildings must comply with the following standards:
 - 1. All municipal buildings greater than 5,000 square feet of conditioned space must be LEED Silver certifiable.
 - 2. All commercial and high rise multi-family residential buildings greater than 5,000 square feet of conditioned space must be LEED Silver certifiable.

3. All one- or two-family dwellings and low rise multi-family residential buildings must meet the level of an Energy Star qualified home by achieving a HERS Index of [80 or 85].
- B. Applicants for covered buildings are not required to attain LEED certification from the USGBC or to have buildings Energy Star qualified by the EPA nor are they required to share energy and water usage data with USGBC under LEED's minimum program requirements.⁴¹
 - C. Optional add-on: [In addition to complying with the requirements of § 5(A), all new construction of and major renovations to covered buildings must attain at least [2] points from the Energy and Atmosphere Credit 1 of the LEED-NC checklist.]
 - D. Optional add-on: [All existing municipal purpose buildings greater than 5,000 square feet of conditioned space must be LEED EB:OM Silver certifiable.]
 - E. Optional add-on: [All existing buildings greater than 5,000 square feet of conditioned space must complete energy and water benchmarking.]

Comment on § 5(A)

Among the four tiers in LEED-NC, Silver is the level most commonly required in existing green building ordinances. A building becomes LEED Silver certifiable by attaining 50 points on the LEED-NC checklist. A municipality that elects to make the ordinance more or less stringent could require the achievement of a different tier of the LEED-NC rating system.

Based on analysis of local climates, EPA set a HERS Index requirement for homes to become Energy Star Homes qualified. In New York, some localities must achieve a HERS Index of 80 while some must achieve a HERS Index of 85 to qualify as an Energy Star Home. The municipality should consult the 2004 Supplement to the International Residential Code, Table N1101.2, which identifies the required HERS Index on a county-by-county basis, to determine the appropriate level of stringency to qualify as an Energy Star Home.⁴²

Municipalities are encouraged to mandate a HERS Index below what is required for Energy Star Homes qualification. For example, the Massachusetts state "stretch" energy code requires an HERS Index of 65 or 70.

Some ordinances reference the older "HERS Score" scale. The HERS Index is similar to a HERS Score, but is reweighted. The model ordinance uses the more up-to-date HERS Index. A HERS Index of 80 is equivalent to a HERS Score of 84, the typical requirement among ordinances that implement the HERS Score scale.

⁴¹ This language is substantially derived from the Brisbane, CA and Greenburgh, NY green building ordinances.

⁴² Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, and Westchester Counties are in Zone 4, requiring a HERS Index of 85. Allegany, Broome, Cattaraugus, Chenango, Clinton, Delaware, Essex, Franklin, Fulton, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Otsego, Schoharie, Schuyler, St. Lawrence, Steuben, Sullivan, Tompkins, Ulster, Warren, and Wyoming Counties are in Zone 6, requiring a HERS Index of 80. All other counties in New York State are in Zone 5, requiring a HERS Index of 85.

Comment on § 5(B)

LEED requires disclosure of energy and water usage data to USGBC under minimum program requirement 6. Because USGBC is not to have any role in enforcement of the ordinance, covered projects are not required to disclose this information to USGBC.

Comment on § 5(C)

A jurisdiction may choose to enhance the energy efficiency requirements of the LEED-NC standard at the Silver level by requiring that commercial buildings receive a certain minimum number of points toward certifiability from EA (Energy and Atmosphere) Credit 1 on the LEED-NC checklist.⁴³ Note that these required points count toward the total needed to achieve Silver certifiability, which is 50 points. For example, if a municipality required applicants to attain two points from EA Credit 1, the applicant would only need to attain 48 more points to reach 50 points total and would not need to attain 50 points in addition to the two required points from EA Credit 1.

Comment on § 5(D)

While regulating construction of new buildings and major modifications reduces the environmental impact of the overall building stock over time, regulating the energy use and operation of existing buildings has a more immediate consequence. This optional add-on requires some municipal purpose buildings to achieve LEED-EB:OM Silver. Several municipalities have enacted a similar requirement, including Los Angeles, CA, Miami Beach, FL, Bloomington, IN, Portland, OR, and Richmond, VA.

Comment on § 5(E)

The model ordinance proposes tracking the energy use of existing buildings to encourage efficiency. The procedures through which this requirement is enforced are listed in § 6(C).

A proposal in New York City to mandate retrofits to inefficient buildings recently failed to be enacted into law,⁴⁴ but could be used as a model for municipalities that regard such a regulation as viable.

6. Compliance Process

A. New construction and major modifications.

1. Applications. Every applicant who files a building permit application for new construction of or major modification to a covered building must submit to the Green Building Compliance Official:
 - a. A completed LEED checklist demonstrating the LEED points a building is designed to obtain, or an Energy Star home report conducted by a third party HERS rater, or other equivalent rater as determined by the Green

⁴³ USGBC, LEED 2009 for New Construction and Major Renovations Rating System 35 (2009), available at <http://www.usgbc.org/ShowFile.aspx?DocumentID=5546> (describing EA Credit 1).

⁴⁴ Mireya Navarro, "Bloomberg Drops an Effort to Cut Building Energy Use," N.Y. Times, Dec. 4, 2009, available at <http://www.nytimes.com/2009/12/05/science/earth/05bloomberg.html>.

Building Compliance Official, demonstrating a projected Energy Star rating score for the home,

- b. A written explanation of how the building will obtain the LEED points identified in the checklist or the Energy Star rating score shown in the home report,
 - c. Design plans that demonstrate compliance with the applicable standard required by § 5 of this article, and
 - d. Any other documents or information the Green Building Compliance Official finds necessary to decide whether the building will achieve the applicable standard required by § 5 of this article.⁴⁵
 - e. If the applicant can show a clear and specific inconsistency between meeting a state or federal legal requirement and the attainment of one or more particular LEED points, or that anti-trust laws prevent the municipality from requiring a particular LEED point or set of points, either of which could invalidate this article or a provision thereof, the applicant should document the conflict in the application. The Green Building Compliance Official shall review the documentation in consultation with the municipality's legal counsel and if such inconsistency exists, will deem the LEED point to have been achieved by the building if otherwise applicable building and energy conservation code requirements have been met.
2. Approval. No building permit shall be issued for any covered building unless the Green Building Compliance Official determines the application demonstrates that the covered building will attain the applicable standard as required by § 5 of this article.⁴⁶
 3. Non-approval. If the Green Building Compliance Official determines that the documentation is incomplete or indicates that the covered building will not meet the required standard in § 5 of this article, the Green Building Compliance Official shall either:
 - a. Return the documentation to the applicant marked "denied," including a statement of reasons for the denial; or

⁴⁵ This language is substantially derived from the Annapolis, MD, Brisbane, CA, Davis, CA, Morgan Hill, CA, and Huntington, NY green building ordinances.

⁴⁶ This language is substantially derived from the Babylon, NY Davis, CA, and Huntington, NY green building ordinances.

on or after the deadline specified by the Green Building Compliance Official in § 6(B)(2).]

4. Optional add-on: [The Green Building Compliance Official shall make public via the internet a list of municipal purpose buildings which must comply with § 5(D) and shall indicate whether those buildings comply by the deadline specified by the Green Building Compliance Official in § 6(B)(2).]
- C. Optional add-on: [Existing buildings that are required to meet the standard in § 5(E).
1. Benchmarking. Within [1] year from the date of adoption of this article, energy and water benchmarking data must be submitted to the [city/town/village] from the agency or entity responsible for the management of the covered building via the benchmarking tool. Subsequently, benchmarking data must be submitted to the [city/town/village] via the benchmarking tool on an annual basis by [January 1st].
 2. Disclosure. The municipality shall make information generated by the benchmarking tool public via the internet no later than [3] months after the data has been generated.]

Comment on § 6(A)

The model ordinance requires applicants to submit a LEED checklist or Energy Star home report that enumerates the LEED points or Energy Star Index applicants expect to achieve upon construction. The Green Building Compliance Official evaluates the application and determines whether the proposed building will meet the applicable standard. Third party organizations, such as the USGBC, are not involved.

Applicants for a commercial or high rise multi-family residential building submit a LEED checklist to the Green Building Compliance Official. Applicants may find a LEED AP helpful in compiling the documentation required by this section but a LEED AP is not required. Applicants required to meet the Energy Star Homes standard must submit an Energy Star home report prepared by a third party HERS rater or other equivalent rater as determined by the Green Building Compliance Official. Allowing an equivalent rater to conduct the Energy Star tests and prepare the home report alleviates anti-trust issues discussed in Part III of the commentary on legal issues that is available on the CCCL website.

In addition to these reports, applicants must submit a written explanation of the methods that will be taken to achieve the requisite LEED points or HERS index, building plans that show how the construction will fulfill the intent stated in the other documents, and other documents required at the discretion of the Green Building Compliance Official. This paperwork is meant to ensure that the applicant plans to construct the building to the requisite standard. An evaluation of the paperwork before granting the building permit reduces the likelihood that the completed building will be noncompliant.

Concerns have been raised as to whether aspects of a municipal green building code may be preempted by or otherwise in conflict with the New York state building code or the federal Energy Policy and Conservation Act (EPCA). To our knowledge no specific inconsistency

between LEED and EPCA or the New York state building code has been identified. However, the model ordinance includes a provision to deal with this situation should it arise. If the applicant can point to a specific inconsistency between one or more LEED points and another mandated requirement, for example, in the state building code, the Green Building Compliance Official may deem the LEED point to have been attained by the building so long as the building meets the standard required by the state building code and any other applicable requirements, thus alleviating preemption issues. This section is also intended to deal with potential anti-trust issues, which while unlikely, are possible. Determinations of preemption and other legal infirmities have both technical and legal aspects, and thus the Green Building Compliance Official should make any such determinations in consultation with the municipality's legal counsel. Further detailed legal commentary on both of these issues is available in the commentary on legal issues that is available on the CCCL website.

The Green Building Compliance Official may deny the building permit, with reasons for the denial stated, or request further information. Applicants may then resubmit the documentation with changes or additional information or seek an exemption. These avenues of recourse for the applicant are advisable to avoid antitrust, non-delegation, and incorporation by reference concerns, as discussed in the commentary on legal issues that is available on the CCCL website.

Comment on § 6(B)

Regulation of existing municipal purpose buildings is effective immediately after the ordinance is adopted. From the date the ordinance is passed, owners of covered buildings have six months to assemble documentation outlining a plan to comply with the LEED-EB:OM standard. After this documentation has been submitted to, and approved by, the Green Building Compliance Official, the applicant has a period of time set at the discretion of the Green Building Compliance Official to implement the planned changes. This deadline is discretionary because it is difficult to anticipate the nature of the required retrofits. Given possible large variations, discretion is given to the Green Building Compliance Official to set an appropriate deadline for compliance.

Comment on § 6(C)

The ordinance requires in § 6(C)(1) that benchmarking be completed through the EPA Energy Star Portfolio Manager benchmarking tool which tracks energy and water consumption and is used by New York City and Washington, D.C. Initially, this data must be submitted to the municipality within one year from the date the ordinance is adopted and in subsequent years, the data must be submitted by January 1. Public disclosure of this benchmarking data is mandated by § 6(C)(2), encouraging more efficient energy use.

7. Enforcement

- A. Compliance Review. The Green Building Compliance Official shall determine whether the specifications identified in the documentation provided pursuant to § 6(A) have been implemented by conducting inspections at any time during construction or until the issuance of a final certificate of occupancy. The applicant shall provide the Green Building Compliance Official with access to the premises in order to conduct inspections

to ensure compliance with this article. The [city/town/village] may require the applicant to provide information and documents showing use of products, equipment, and materials specified in the documentation provided pursuant to § 6(A). If the [city/town/village] determines that the building is not being constructed in accordance with the documentation, the Green Building Compliance Official may issue a stop work order. This order may apply to a portion of the building or to the entire building and shall remain in effect until the Green Building Compliance Official determines that the building will be brought into compliance with the documentation and the requirements of this article.⁴⁹

- B. Substitution of LEED points or Energy Star features. During compliance review, the Green Building Compliance Official may exercise flexibility to substitute the approved LEED points with other LEED points or to substitute approved Energy Star features with other Energy Star features so long as the building will still attain the green building rating required by this article. Substitution shall occur only at the request of the applicant and when it is determined by the Green Building Compliance Official that the originally approved points or features are no longer feasible or that the substitute point or feature will realize a more favorable result as determined by the Green Building Compliance Official. Substitution is at the discretion of the Green Building Compliance Official.⁵⁰
- C. Final Approval. The [Green Building Compliance Official/Building Department] shall not issue a final certificate of use and occupancy for any construction of a covered building unless [he or she/it] finds that the building has achieved the standard required under § 5 of this article.⁵¹
1. Energy Star Homes. For buildings required to achieve Energy Star Homes qualified status, a home energy rating certificate must be submitted to the Green Building Compliance Official from a third party HERS rater, or other equivalent rater as determined by the Green Building Compliance Official, indicating that the building has complied with the applicable standard under § 5 of this article including all performance and field-testing verification.⁵²
 2. Temporary Approval and Mitigation. If, upon completion of construction, the building does not comply with the requirements of § 5 of this article, the [Green Building Compliance Official/Building Department] may issue a temporary certificate of occupancy if the deviations are reasonable and there is assurance from the applicant that the deviations will be corrected or mitigated. The Green Building Compliance Official shall determine the reasonable mitigation measures.

⁴⁹ This language is substantially derived from the Babylon, NY, Brisbane, CA, Chamblee, GA, Conyers, GA, and Huntington, NY green building ordinances.

⁵⁰ This language is substantially derived from the Brisbane, CA, Morgan Hill, CA, and Huntington, NY green building ordinances.

⁵¹ This language is substantially derived from the Annapolis, MD, Brisbane, CA, Livermore, CA, and Healdsburg, CA green building ordinances.

⁵² This language is substantially derived from the Babylon, NY green building ordinance.

The temporary certificate of occupancy shall be in place for [30] days and may be renewed no more than two times after which the applicant must apply to the [appellate body] for any further temporary certificates of occupancy. Once the building has met the requirements of § 5 of this article or the applicant has completed the necessary mitigation measures, the [Green Building Compliance Official/Building Department] will issue a final certificate of use and occupancy for the building.

- a. Optional add-on: [Disclosure of the Issuance of Temporary Certificates of Occupancy. When a temporary certificate of occupancy is issued in accordance with § 7(C)(2), the [Green Building Compliance Official/Building Department] shall make public the date of the issuance of the temporary certificate of occupancy and the address and any other designation of the building that received it.]

Comment on § 7(A)

Once construction begins, the Green Building Compliance Official can track the applicant's adherence to the goals articulated in the documentation provided pursuant to § 6(A) at any point during construction to ensure that construction is proceeding according to plan and will achieve compliance.

Comment on § 7(B)

Should construction not proceed in accordance with the documentation, the Green Building Compliance Official is authorized to halt construction. However, a stop work order is a heavy burden on development. To avoid this result, if a planned LEED point or Energy Star feature is not implemented during construction, the Green Building Compliance Official may allow the applicant to implement other LEED points or Energy Star features.

This substitution may only be made if the original features or points are no longer feasible or if the substituted points or features are deemed to realize a more favorable result by the Green Building Compliance Official. By 'more favorable result,' the ordinance means increased energy or water savings or other changes to reduce environmental impact. The insertion of this language is intended to allow opportunities for improvements on the originally-approved construction plans. This section allows flexibility to cure potentially noncompliant buildings during construction while maintaining focus on the end goal – achieving the applicable green building standard.

Note that the legal standards of hardship and infeasibility, described in § 8, apply only for determinations made prior to awarding the building permit. However, the procedures described in § 7(B) address cases where unexpected conditions discovered during construction affect the applicant's ability to comply with the ordinance. In other words, applicants may only seek hardship and infeasibility exemptions before construction has begun. Point or feature substitution takes place during or after construction is complete and while intended to mitigate the impact of any unexpected hardship, only deals with hardships that arise during construction.

Comment on § 7(C)

The final determination of compliance can result in approval, temporary approval, or rejection. Measures taken before and during construction, described in §§ 7(A) and (B), would ideally ensure that upon completion the building has adhered to the agreed-upon designs and meets the applicable standard. These early steps are intended to avoid the conundrum of completed but vacant and noncompliant buildings. Approval is given when the applicant has completed the building as planned. If approved, the building will receive its final certificate of use and occupancy.

When completed buildings fail to comply, reconstruction at great expense may be impractical. In these circumstances, the Green Building Compliance Official may grant a temporary certificate of use and occupancy in exchange for assurances that defects will be cured, balancing the interests of full enforcement and allowing a finished building to be used. Where the deviations from the submitted plans are reasonable, the Green Building Compliance Official has the power to determine whether the deviations from the plans must be fully corrected or may simply be mitigated. If the deviations must be fully corrected, the applicant is expected to fulfill the plans in the originally submitted documentation. If the deviations may be mitigated, the applicant must comply with other measures as determined by the Green Building Compliance Official, which could be in the form of LEED points, Energy Star features, or some other green building feature.

This process allows municipalities to avoid the situation of a completed building being unable to obtain a certificate of occupancy and thus remaining empty because it has not complied with the green building standards in the ordinance. Where compliance has not been achieved, a temporary certificate of use and occupancy can be obtained and as long as mitigation measures provided by the Green Building Compliance Official are completed, a permanent certificate of use and occupancy will be granted. Construction cannot begin until the applicant has demonstrated that it will be able to meet the applicable standards, and it is believed that there will always be some type of green measures that a building will be able to undertake to mitigate its shortfalls and thus no buildings will be left vacant for failing to reach the standards in the ordinance.

To promote consistency and transparency, the municipality may choose to require the Green Building Compliance Official to keep records of and publicly disclose details related to the granting of temporary certificates of occupancy. While not included in the text of the optional add-on, a municipality could also choose to include in the required disclosure the mitigation measures taken to cure noncompliance.

8. Exemptions

The provisions of this article apply to all covered buildings with the following exemptions.

- A. Hardship or infeasibility. If an applicant believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this article, the applicant may apply for a partial exemption as set forth below. The burden is on the applicant to show hardship or infeasibility.
 1. Factors to consider in determining whether hardship or infeasibility exist include, but are not limited to: availability of green building materials and technologies,

compatibility of green building requirements with other government requirements and building standards, and availability of markets for materials to be recycled.

2. "Hardship" means some verifiable level of difficulty or adversity arising from the factors identified in § 8(A)(1) or other circumstances beyond the control of the applicant, by which the applicant cannot reasonably comply with the requirements of this article.
 3. "Infeasible" means the existence of verifiable obstacles arising from the factors identified in § 8(A)(1) or other circumstances beyond the control of the applicant which render the applicant incapable of complying with the requirements of this article.
 4. Application. The applicant may apply for an exemption at the time of submission of the documentation required in § 6 of this article. The applicant shall indicate the maximum number of credits he or she believes is feasible for the building to obtain and the circumstances that make it a hardship or infeasible to fully comply with this article.
 5. Granting of Exemption. If the Green Building Compliance Official determines that it is a hardship or infeasible for the applicant to meet the requirements of this article, he or she shall determine the maximum feasible number of credits reasonably achievable for the building. If an exemption is granted, the applicant shall be required to comply with this article in all other respects and shall be required to attain the number of credits determined to be achievable by the Green Building Compliance Official.
 6. Denial of Exemption. If the Green Building Compliance Official determines that it is not a hardship or infeasible for the applicant to meet the requirements of this article, he or she shall so notify the applicant in writing with a statement of reasons for the denial.⁵³
- B. Optional add-on: [Historic buildings. If an applicant believes that circumstances exist under which a historic building should not be required to meet the standards of this article to maintain historic integrity, he or she may apply for a partial exemption. The process for granting a partial exemption shall be the same as that in §§ 8(A)(4) – (6) above.]
- C. Optional add-on: [Cost. If compliance with this article would cause the cost of construction of the covered building to increase by [25]%, the building is exempt from the requirements of this article.]

Comment on § 8(A)

⁵³ This language is substantially derived from the Albany, CA, Brisbane, CA, Davis, CA, Napa, CA, and Huntington, NY green building ordinances.

Exemptions add flexibility to the compliance process. Applicants for whom compliance with the ordinance is infeasible or a hardship, as defined in §§ 8(A)(2) and (3), can apply for a partial exemption. If the Green Building Compliance Official agrees that compliance is a hardship or is infeasible, the building is subject to a revised standard. For example, if an applicant shows that it is infeasible for the building to attain LEED Silver (50 points) but the Green Building Compliance official determines that the building can attain 40 points, the applicant would be required to instead attain 40 points.

Comment on § 8(B)

If a municipality offers a partial exemption for historic buildings, a building's status as a historic building is determined by the appropriate historic building authorities and not by the Green Building Compliance Official. Buildings regarded as historic by the proper authorities must still follow the procedures listed in § 8(A)(4) – (6) to receive an exemption, though historic status is a presumptive justification for an exemption. The Green Building Compliance Official can then mandate the number of LEED points or Energy Star Homes features determined to be achievable by the historic building.

Comment on § 8(C)

A municipality may choose to exempt buildings whose cost would dramatically increase due to compliance with the ordinance. The majority of enacted green building ordinances do not include an exemption for cost. Yet, some municipalities may wish to adopt a provision providing relief for exceptionally costly projects.

9. Exclusions

County, state, and federal facilities, special purpose unit of government facilities, buildings of municipalities other than the one enacting this article [, houses of worship][, and healthcare facilities] are excluded from the requirements of this article.

Comment on § 9

A municipality may fully exclude some buildings from regulation. State and federal facilities are excluded as municipalities do not have the power to enforce green building standards on these buildings.

Special purpose unit of government facilities are also excluded from the green building standards. These units of government can include school districts and fire districts, among other things, and there are legal uncertainties concerning whether a municipal green building ordinance can regulate buildings that are in the custody of other governmental units but within the borders of the municipality. Although some buildings of special purpose units of government can be regulated by the municipality, the court uses a balancing test to make this determination on an ad hoc basis. Thus the ordinance exempts buildings of special purpose units of government from the green building regulations to maintain simplicity and consistency in the ordinance. Further legal analysis on this issue is available on the CCCL website. A municipality may specifically include one or more special purpose entities if it so chooses and is advised that it may do so.

With respect to schools, in all cities, towns, and villages in New York State except for the five most populous cities, school districts are considered special purpose units of government and have their own regulatory powers. In these jurisdictions, municipalities may not be able to enforce green building ordinances on school buildings built in the home municipality. In the five most populous cities in New York, the school districts are not special purpose units of government as they are run by the city and are part of the municipal government, thus the municipality can enforce a green building ordinance on school buildings in the municipality. Therefore, schools in the five most populous cities in New York would have to comply with the model ordinance if those cities adopted it, while schools in all other towns, villages, and cities would not.

Municipalities may also choose to exclude houses of worship or healthcare facilities for political and practical reasons. The Religious Land Use and Institutionalized Persons Act (RLUIPA) may present a problem for ordinances that treat religious buildings differently from other buildings. However, RLUIPA should not be relevant in relation to the model ordinance as the model ordinance, like a building or plumbing code, applies uniformly to all buildings. There is therefore no legal reason to exempt houses of worship from the ordinance but if the municipality chooses to do so for other reasons it can add houses of worship as an exemption.

USGBC has developed LEED for Healthcare and other specific rating systems for specific types of structures.⁵⁴ This reflects the different ways these types of facilities use energy and other resources. Because LEED for Healthcare has not been implemented into many municipal ordinances, the model ordinance does not implement it and exempts healthcare facilities. However, a municipality may consider implementing these systems through the process in § 4(B) in lieu of excluding these types of buildings from regulation.

10. Appeals

Any person aggrieved may appeal in writing any decision or determination by the Green Building Compliance Official under this article including the granting or denial of an exemption or compliance with the article to the [appellate body]. Any appeal must be filed with the secretary of the [appellate body] not more than [30] days after the decision or determination by the Green Building Compliance Official is furnished to the applicant. The appeal shall state the alleged error or reason for the appeal. The [appellate body] shall review the decision or determination under the same standard of review the [appellate body] would generally use in its appellate capacity and may uphold, reverse or modify the decision or determination, or refer the matter back to the Green Building Compliance Official for such further action as may be directed by the [appellate body].⁵⁵

Comment on § 10

An appellate process is legally advisable, as described in the commentary on legal issues that is available on the CCCL website. The board of zoning appeals administers such processes in most municipal zoning codes; however, the municipality may choose a different body to administer the appellate process. The board of zoning appeals conducts review of the decisions

⁵⁴USGBC, LEED Rating Systems, <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222> (describing various systems).

⁵⁵ This language is substantially derived from the Annapolis, MD and Brisbane, CA green building ordinances.

of the Green Building Compliance Official in accordance with state law and the municipal code. Generally, this means the board of zoning appeals will make the determination that they believe the Green Building Compliance Official should have made in the first place. 'Any person aggrieved' has standing to bring an appeal in front of the board of zoning appeals under New York State law.⁵⁶

11. Severability

If any subsection, subdivision, paragraph, sentence, clause or phrase of this article, or any part thereof, is for any reason held to be unconstitutional, invalid, or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions or any part thereof.⁵⁷

12. Other Applicable Regulations

Notwithstanding anything in this article, nothing in this article obviates the need to comply with otherwise applicable building code requirements for building permits, temporary certificates of use and occupancy, final certificates of use and occupancy, fire, safety and electrical codes, and any other applicable land use or environmental requirements such as subdivision regulations, site plan review, or special use permit approval.

Comment on § 12

This section reinforces the notion that the green building ordinance is not meant to supplant or interfere in any way with current municipal building codes or other environmental, land use, or site plan approvals with which the applicant is required to comply. The model ordinance will work in conjunction with other building and land use laws already in place in the municipality as part of the building and land use approval process.

⁵⁶ 2 N.Y. Zoning Law & Prac. § 28:03.

⁵⁷ This language is substantially derived from the Albany, CA green building ordinance.

Comment on former Appendix A

In the previous version of the ordinance, Appendix A contained statutory language to implement a PACE, or property assessed clean energy, program using federal grant assistance or federal credit support. However, even though recently passed legislation in New York State authorized municipalities to create a PACE program, PACE has largely been put on hold by actions taken by Fannie Mae and Freddie Mac.⁵⁸ Therefore, this appendix has been eliminated. However, if the program is revived, the relevant language will be added.

Appendix A: Intermunicipal Agreements

Intermunicipal agreements are allowed pursuant to Article 9, § 1 of the State Constitution and Article 5-G § 119-o of the General Municipal Law. Article 5-G provides broad authority for municipal corporations and districts to cooperate with each other in carrying out their responsibilities. A municipal corporation is defined to include any county outside the City of New York, a city, town, village, board of cooperative educational services, fire district, or school district. These intermunicipal agreements can help small municipalities share costs and officers thus saving money and work for the municipalities.

Under Article 5-G, municipal corporations and districts have the power to enter into, amend, cancel and terminate agreements for the performance among themselves, or one for the other, of their respective functions, powers, and duties on a cooperative or contract basis or for the provision of a joint service. These agreements may only extend to a maximum term of five years but may be renewed. Each participant in the agreement must have statutory authority, independent of Article 5-G, to perform the function that is the subject of the cooperation agreement.

In the context of the green building ordinance, municipalities may want to share resources through an intermunicipal agreement to share a Green Building Compliance Official or other enforcement or inspection officials that are necessary for the implementation and enforcement of the ordinance. In this way, municipalities can pool resources and green building knowledge without having to spend a large amount of money or time training an employee to be a green building specialist. The following two sample intermunicipal agreements show the form that such an agreement could take. The samples state that the officer being shared is the Green Building Compliance Official, but municipalities could specify any other officer of the municipality to be shared between them. The municipalities would need to specify what services will be provided and how payment will be calculated as these are not fully detailed in the sample agreements.

SAMPLE INTERMUNICIPAL AGREEMENT #1

THIS AGREEMENT is made as of the ___ day of _____, 201_ between the Town of _____, a municipal corporation located at [address], New York (“[Town #1]”), and the Town of _____, a municipal corporation located at [address], New York (“[Town #2]”).

⁵⁸ See J. Cullen Howe, *Federal PACE Program Threatened by Fannie Mae and Freddie Mac*, CCCL Green Building Law Update Service, July 6, 2010, <http://blogs.law.columbia.edu/greenbuildinglaw/2010/07/06/federal-pace-program-threatened-by-fannie-may-and-freddie-mac/>.

Whereas, the [Green Building Compliance Official (“GBCO”)] is responsible for enforcing the green building ordinance and the [GBCO] and/or Building Department staff also receive applications and issue permits or certificates in connection with various green building and construction- related activities; and

Whereas, Town #1 currently has a fully staffed office for the purpose of undertaking the aforementioned green building enforcement duties; and

Whereas, it is in the interest of the taxpayers of the aforementioned Towns to share resources in the undertaking of such green building enforcement and inspection services; and

Whereas, Town #1 and Town #2 are authorized, pursuant to both Article 9, § 1 of the State Constitution and Article 5-G of the General Municipal Law to enter into intermunicipal agreements; and

Whereas, it is expected that assistance, in whatever form, will be reciprocal and proportionally equitable over a period of time, and that the exchange and sharing of office equipment and personnel will result in more cost effective work performance at manageable cost to either party; and

Whereas, flexibility in operating local governments and their green building enforcement programs is necessary to insure efficiency and maximum benefits; and

Whereas, general oversight by appropriate Town officials will be accomplished through monthly and annual log reports by the appropriate [GBCO] to the respective Town Boards.

Now, therefore, be it hereby agreed as follows:

1. Town #1 hereby contracts with Town #2 to provide services by Town #1 [GBCO] to Town #2.
2. The services to be provided are to be those set forth on Schedule A hereof.
3. In return for said services Town #2 shall reimburse Town #1 pursuant to the rates set forth on Schedule B hereof.
4. Town #2 hereby indemnifies and holds Town #1 harmless for any claim or liabilities arising against Town #1 from actions performed by the [GBCO] on behalf of Town #2.
5. Town #1 hereby indemnifies and holds Town #2 harmless for any claim or liabilities arising against Town #2 from actions performed by the [GBCO] on behalf of Town #1.
6. This Agreement shall expire one (1) year from the date hereof unless extended in writing by the parties hereto.

TOWN #1

By: _____
_____, Supervisor

TOWN #2

By: _____
_____, Supervisor

SAMPLE INTERMUNICIPAL AGREEMENT #2

THIS AGREEMENT, is made and entered into this [date] between the TOWN OF [TOWN 1], a municipal corporation of the State of New York [mailing address] (“[Town 1]”), the TOWN OF [TOWN 2], a municipal corporation of the State of New York [mailing address] (“[Town 2]”), and the TOWN OF [TOWN 3], a municipal corporation of the State of New York [mailing address] (“[Town 3]”).

WITNESSETH:

WHEREAS, [Town 1], [Town 2] and [Town 3] have each enacted local green building ordinances which require the appointment of a [Green Building Compliance Official (“GBCO”)] to enforce the provisions of said ordinances, and

WHEREAS, the Town Boards of [Town 1], [Town 2] and [Town 3], pursuant to the provisions of General Municipal Law section 119-o, are desirous of joining together to share a duly qualified and trained [Green Building Compliance Official]

NOW, THEREFORE, IT IS HEREBY AGREED, by the Towns of [Town 1], [Town 2], and [Town 3] as follows:

1. [Town 1] , [Town 2] and [Town 3] each agree to cooperate with each other in hiring and sharing a [GBCO] to implement and enforce their green building ordinances.
2. The services to be provided by the [GBCO] are those set forth in Schedule A hereof.
3. The payment for said services shall be provided as set forth in Schedule B hereof.
4. Each municipal corporation shall respond to any need and request for the [GBCO] as soon as able.
5. Each municipal corporation shall:
 - (a) be responsible for injury to the [GBCO] providing cooperative services for the municipality if it is a workers’ compensation injury.

- (b) pay the [GBCO] for green building inspection and compliance services according to the payment schedule in Schedule B.
- (c) be liable for negligence of the [GBCO] occurring in the performance of his/her duties for the municipal corporation.

6. [Town 1], [Town 2] and [Town 3] do each hereby agree to obtain and thereafter continue to keep in full force and effect general liability insurance, and public officers liability insurance relative to this Agreement during all phases of the performance of the various provisions to be performed herein.

7. The term of this Agreement shall be from the date of acceptance through to [date], and shall be renewed automatically for additional terms of one (1) year each, unless either party shall notify the other, no later than sixty (60) days prior to the end of the term, of its election not to renew.

8. Should any dispute arise between the parties respecting the terms of this Agreement, the disputed matter shall be settled by arbitration, in accordance with the laws of the State of New York, by three arbitrators, one of whom shall be selected by each of the parties hereto, and the third by the two arbitrators so selected. If the selection of any arbitrator shall not be made within 15 days of the time that either party shall notify the other of the name of the arbitrator selected by the notifying party, then the arbitrator or arbitrators not selected shall be appointed in the manner provided by the laws of the State of New York.

9. This Agreement constitutes the complete understanding of the parties. No modification of any provisions thereof shall be valid unless in writing and signed by both parties.

10. [Town 1] represents and warrants that the Supervisor of the Town of [Town 1] has executed this Agreement pursuant to a Resolution adopted by the [Town 1] Town Board at a meeting thereof held on _____, 201_. [Name] , Supervisor whose signature appears hereafter, is duly authorized and empowered to execute this instrument and enter into such an agreement on behalf of the Town of [Town 1].

11. [Town 2] represents and warrants that the Supervisor of the Town of [Town 2] has executed this Agreement pursuant to a Resolution adopted by the [Town 2] Town Board at a meeting thereof held on _____, 201_. [Name] , Supervisor, whose signature appears hereafter, is duly authorized and empowered to execute this instrument and enter into such an agreement on behalf of the Town of [Town 2].

12. [Town 3] represents and warrants that the Supervisor of the Town of [Town 3] has executed this Agreement pursuant to a Resolution adopted by the [Town 3] Town Board at a meeting thereof held on _____, 201_. [Name] Supervisor, whose signature appears hereafter, is duly authorized and empowered to execute this instrument and enter into such an agreement on behalf of the Town of [Town 3]

13. This Agreement shall be executed in duplicate. At least one copy shall be permanently filed, after execution thereof, in the offices of the Town of [Town 1] Town Clerk, the Town of [Town 2] Town Clerk and the Town of [Town 3] Town Clerk.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement as of the date first above written.

[Add signatures and acknowledgment]

Appendix B: SEQRA review

The New York State Environmental Quality Review Act (SEQRA) governs the discretionary decisions of state and local governments, including municipal governing bodies. Thus the Model Green Building Ordinance would be subject to SEQRA. It does not fit the description of any of the types of actions that are classified under SEQRA as Type I (meaning actions that are more likely than others to require an environmental impact statement (EIS)) or as Type II (meaning that it is of the sort that never requires an EIS). Therefore it would be classified as an “unlisted” action.

Under DEC’s regulations, unlisted actions may be analyzed under the Short Environmental Assessment Form (EAF). A completed sample Short EAF for the model ordinance is available on the CCCL website. The Short EAF form can be found as a pdf document here: http://www.dec.ny.gov/docs/permits_ej_operations_pdf/shorteaf.pdf. As the Short EAF does not identify any impacts or conditions that could require an EIS, the CCCL website also includes a completed sample Negative Declaration -- a document concluding that no EIS is needed. The Negative Declaration form can be found as a pdf document here: http://www.dec.ny.gov/docs/permits_ej_operations_pdf/negdec.pdf.

Each municipality should carefully review these model forms before acting on them, in order to ensure that they are accurate with respect to the municipality’s own circumstances, and make any appropriate changes. If the municipality decides to issue a Negative Declaration, issuance would complete the SEQRA process for a proposed action. The resolution declaring the municipal governing body to be the lead agency, the Short EAF, and the Negative Declaration may all be adopted at the same time, which may be simultaneously with or prior to the ordinance itself. For unlisted actions involving only one agency, no advance public notices or hearings are required by state law.

Appendix C: Changing the green building rating system

Under § 4(B) of the model ordinance, a municipality may change either or both of the green building rating systems used in the ordinance from LEED and Energy Star to another green building rating system. If a municipality chooses to do this, there are multiple sections of the model ordinance that need to be changed to reflect the new green building rating system that is being used. Below is a comprehensive list of the sections of the model ordinance that mention LEED or Energy Star and the changes that are necessary to make to them if a municipality adopts a different green building rating system.

If LEED is changed to a different green building rating system the following sections of the model ordinance will need to be amended:

§ 3: Remove the definitions for Leadership in Energy and Environmental Design (LEED) Standards, LEED Accredited Professional (AP), and LEED checklist. The definitions for Rating System and Version will also need to be changed or removed to reflect the new green building rating system. New definitions will need to be added to reflect the new green building rating system that is in place.

§ 4(A): Change the names of the green building rating systems that are adopted in the ordinance to reflect the new green building rating system or systems.

§ 4(B): Change the name of the green building rating system.

§ 5(A): Change the name of the standard required under the new green building rating system.

§ 5(B): Change the name of the green building rating system or delete if no longer applicable.

§ 5(C) and 5(D) (optional provisions): If adopted, change to the new green building rating system or delete if no longer applicable.

§ 6 (A)(1): (a) Change LEED checklist and LEED points, (b) Change LEED points, (e) Change LEED points to the new green building rating system.

§ 6(A)(5): Change LEED points to the new green building rating system.

§ 6(B)(1)(a) (optional provision): If adopted, change LEED EB:OM checklist and LEED EB:OM points to the new green building rating system.

§ 7(B): Change LEED points to the new green building rating system.

If Energy Star is changed to another green building rating system the following sections of the model ordinance will need to be amended:

§ 3: Remove the definitions for Energy Star Homes Rating System, Energy Star Home Report, HERS, Home Energy Rating System (HERS) Rater, and Home Energy Rating System (HERS) Index. New definitions will need to be added to reflect the new green building rating system that is in place.

§ 4(A): Change the names of the green building rating systems that are adopted in the ordinance to reflect the new green building rating system or systems.

§ 4(B): Change the name of the green building rating system.

§ 5(A): Change the name of the standard required under the new green building rating system.

§ 5(B): Change the name of the green building rating system or delete if no longer applicable.

§ 5(C) and 5(D) (optional provisions): If adopted, change to the new green building rating system or delete if no longer applicable.

§ 6 (A)(1)(a): Change Energy Star home report conducted by third party HERS rater to the new green building rating system.

§ 6(A)(5): Change Energy Star features to the new green building rating system.

§ 7(B): Change Energy Star features to the new green building rating system.

§ 7(C)(1): Change Energy Star Homes to the new green building rating system or delete if no longer applicable.

Model Municipal Wind Siting Ordinance
By Marne Sussman and Jason James
Center for Climate Change Law at Columbia Law School

Introduction

In New York state, local municipalities have substantial control over wind siting policy. In order to effectively develop New York's prodigious wind energy capacity, therefore, it is necessary for New York municipalities to put into place comprehensive wind siting ordinances. Some municipalities lack a wind siting policy or have a policy that inhibits development of wind energy facilities. The intention of this ordinance is to allow New York municipalities to enact a wind siting ordinance that encourages development while procedurally addressing common concerns citizens have with wind energy facilities. Each piece of the model ordinance was derived from an existing wind siting ordinance, as cited in footnotes. For full citation of these ordinances, please reference the wind siting ordinance database on the CCCL website.

1. Purpose & Intent

- A. To promote the effective and efficient use of the [Town/City/Village]'s wind energy resources through wind energy conversion systems ("WECS") and to regulate the placement of such commercial WECS so that the public health, safety, and welfare are not jeopardized.¹
- B. Wind energy is an abundant, renewable, and nonpolluting energy resource and its conversion to electricity will reduce dependence on nonrenewable energy resources and decrease the air and water pollution that results from the use of conventional energy sources.²
- C. The generation of electricity from properly sited wind turbines can be cost effective, and in many cases, existing power distribution systems can be used to transmit electricity from wind-generating stations to utilities or other users, or on-site consumption can be reduced.³
- D. Optional add-on: [This ordinance is designed to properly regulate and site wind energy facilities and thus deal with potential problems they can create including: aesthetic impacts, drainage problems, harm to farmlands, a risk to bird and bat populations, risks to the property values of adjoining properties, significant noise, traffic problems during construction, and electromagnetic interference with various types of communication.]⁴

2. Definitions

¹ Chautauqua, Eden, Concord, Evans, Holland, Albion, Rotterdam

² Holland, Cazenovia, Chautauqua, Evans, NY model wind ordinance

³ Chautauqua

⁴ Chautauqua

AGRICULTURAL LAND

The land and on-farm buildings, equipment, manure processing, and handling facilities and practices which contribute to the production, preparation, and marketing of crops, livestock, and livestock products as a commercial enterprise, including a commercial horse boarding operation, as defined in Subdivision 13 of New York Agriculture and Markets Law § 301, and timber processing, as defined in Subdivision 14 of New York Agriculture and Markets Law § 301. Such operations may consist of one or more parcels of owned or rented land which may be contiguous or noncontiguous to each other.⁵

The use of land for agricultural production purposes, including tilling of the soil, dairying, pasture, animal and poultry husbandry, apiculture, arboriculture, horticulture, floriculture, viticulture, and accessory uses for packing, storing, processing and retail sales of products, provided that the operation of any such accessory uses shall be secondary to that of the principal agricultural production activities.⁶

ACCESSORY FACILITIES OR EQUIPMENT

Any structure other than a wind turbine, related to the use and purpose of deriving, collecting or distributing energy from such wind turbines located on or associated with a wind energy facility.⁷

LARGE WIND ENERGY CONVERSION SYSTEM

A Wind Energy Conversion System (“WECS”) consisting of one wind turbine, one tower, and associated control or conversion electronics which has a rated capacity greater than [150] kilowatts and is intended to supply some portion of its produced electrical power for sale to a power grid.⁸ Such a WECS may also be called a “Commercial Wind Energy Conversion System.”

ENVIRONMENTAL ASSESSMENT FORM (“EAF”)

A form used in the environmental review process under the State Environmental Quality Review Act (“SEQRA”) as that term is defined in Part 617 of Title 6 of the New York Codes, Rules and Regulations.⁹

SMALL WIND ENERGY CONVERSION SYSTEM

A WECS consisting of one wind turbine, one tower, and associated control or conversion electronics which has a rated capacity of not more than [150] kilowatts and a total height less than [125] feet, and is intended to primarily reduce consumption of utility power at that location (on-site).¹⁰

OVERSPEED CONTROL

A mechanism used to limit the speed of blade rotation to below the design limits of the WECS.¹¹

PUBLIC ROAD

⁵ Chautauqua

⁶ Owasco

⁷ Rotterdam

⁸ Rotterdam (100), Batavia (50/175), Wheatfield/Somerset/Tonawanda/Lackawanna (250/150), Evans (250/175), most have last clause (Batavia says primarily not solely)

⁹ Chautauqua, Albion

¹⁰ Albion (10), Van Buren (15 for single family residential, 125 for farming), Batavia (50/175), Rotterdam (100), Chautauqua (100), Wheatfield/Somerset/Tonawanda/Lackawanna (250/150), Evans (250/175), three have last clause

¹¹ Eden

Any federal, state, county, city, town or village road which is open to the public, or private road regularly used by multiple persons for access to separate off-site parcels of land, access to which is unrestricted by the owner(s) of said private road.¹²

RESIDENCE

Any dwelling for habitation, either seasonally or permanently, by one or more persons. A residence may be part of a multi-dwelling or multi-use building and shall include buildings such as hotels, hospitals, motels, dormitories, sanitariums, long term care facilities, schools or other buildings used for educational purposes, or correctional institutions.¹³

RESIDENTIAL WIND ENERGY CONVERSION SYSTEM

A WECS consisting of one wind turbine, one tower, and associated control or conversion electronics which has a rated capacity of not more than [10] kilowatts and a total height less than [50] feet, and is intended to primarily reduce consumption of utility power at that location (on-site).

STATE ENVIRONMENTAL QUALITY REVIEW ACT ("SEQRA")

The New York State Environmental Quality Review Act and its implementing regulations in Title 6 of the New York Codes, Rules and Regulations, Part 617.¹⁴

SITE

The parcel of land where the WECS is to be placed including related tower and transmission equipment. The site may be publicly or privately owned by an individual or group of individuals controlling single or adjacent properties. Where multiple lots are in joint ownership, the combined lots shall be considered as one for purposes of applying setback requirements.¹⁵

TOTAL HEIGHT

Height of WECS measured from ground elevation to top of tip of blade in vertical position.¹⁶

TOWER

Support structure, including guyed, monopole, and lattice types, upon which wind turbine or other mechanical device is mounted.¹⁷

WIND ENERGY CONVERSION SYSTEM ("WECS")

A machine that converts the kinetic energy in the wind into a usable form (commonly known as a "wind turbine" or "windmill"). A WECS can be commercial or non-commercial. A WECS may include one or more wind turbines, towers, associated control or conversion electronics, transformers, and/or maintenance and control facilities or other components used in the system. The turbine or windmill may be on a horizontal or vertical axis, rotor or propeller.¹⁸

WIND ENERGY FACILITY

¹² Rotterdam

¹³ Chautauqua, Albion, Rotterdam

¹⁴ Chautauqua, Albion

¹⁵ Holland, Albion, Rotterdam

¹⁶ Evans, Holland

¹⁷ Holland

¹⁸ Holland, Chautauqua, Albion, Eden

Any WECS or wind measurement tower, including all related infrastructure, electrical lines and substations, access roads and accessory structures that are under common ownership or operating control.¹⁹

WIND MEASUREMENT TOWER

A tower used for the measurement of meteorological data such as temperature, wind speed and wind direction installed prior to construction of a WECS for wind site assessment.²⁰

Comment on definition of Large, Small, and Residential Wind Energy Conversion Systems

The numerical values chosen for kilowatt production and height are among the higher end of values chosen by evaluated municipalities and are meant to encourage wind energy. Based on the individual circumstances of a municipality choosing to implement the model ordinance, these values may be changed accordingly. That is, more WECS fall under the less onerous small WECS regulations with these quantitative values, thus encouraging wind energy development. Other observed values were 50 or 100 kilowatts and 150 feet for large WECS.

These separate classifications were chosen because larger WECS necessitate greater procedure to ensure proper placement. Smaller WECS, which present fewer siting issues than larger WECS, are not required to undertake the same procedures as larger WECS in order to encourage their use.

3. Applicability

- A. The requirements of this section shall apply to all wind energy facilities proposed, operated, modified, or constructed after the effective date of this article.²¹
- B. Wind energy facilities for which a required permit has been properly issued and upon which construction has commenced prior to the effective date of this article shall not be required to meet the requirements of this section, however;
 1. Any such preexisting wind energy facility which does not provide energy for a continuous period of 12 months shall meet the requirements of this section prior to recommencing production of energy.²²
- C. No modification or alteration, excluding regular maintenance and repair, to an existing wind energy facility shall be allowed without full compliance with this section.²³

4. Permits Required

- A. No wind energy facility shall be constructed, reconstructed, or modified in the [Town/City/Village] of [] except in compliance with this article.

¹⁹ Chautauqua, Holland, Riga, Albion

²⁰ Chautauqua, Albion, Rotterdam

²¹ Chautauqua

²² Chautauqua, Albion

²³ Chautauqua, Albion

- B. No wind energy facility, but for those outlined in § 4(B)(1) below, shall be constructed, reconstructed, or modified in the [Town/City/Village] of [] except pursuant to site plan approval from the [Town/City/Village] [Board/Planning Board] and a special use permit from the [Town/City/Village] [Board/Planning Board] issued in accordance with this article.²⁴
 - 1. Residential WECS are allowed as accessory uses in all zoning districts and may be constructed, reconstructed, or modified without being issued a special use permit. Residential WECS must otherwise submit documentation described in § 5 at the time of site plan review and comply with safety and other standards described in §§ 8 and 9 of this article.
- C. No wind energy facility shall be constructed, reconstructed, or modified in the [Town/City/Village] of [] except pursuant to a building permit from the [Building Department].²⁵
- D. Large wind energy facilities are only allowed in [] districts.²⁶
- E. Small wind energy facilities are only allowed in [] districts.

Comment on § 4

It is recommended that municipalities allow small wind energy facilities in all districts other than residential districts. Large wind energy facilities are more suited to rural districts but should be permitted in any district deemed appropriate by the municipality.

5. Applications for Wind Energy Facilities

- A. An application for a special use permit for wind energy facilities shall include the following:²⁷
 - 1. Name, address, and telephone number of the applicant and land owner and affidavit of agreement between landowner and facility owner, if any.
 - 2. Address or other property identification of each proposed facility including tax map number, existing use and acreage of parcel, and zoning designation.
 - 3. A description of the facility and project including the number of WECS, data pertaining to each tower's safety and stability, including safety results from test

²⁴ Southport, Concord, Eden, Evans, Holland, Caledonia, Riga, Sommerset, West Bloomfield, Schodack, Rotterdam, NY model wind ordinance

²⁵ Southport, Concord, Eden, Evans, Holland, Caledonia, Riga, Sommerset, West Bloomfield, Schodack, Rotterdam, NY model wind ordinance

²⁶ Eden, Evans, Caledonia, Riga, Sommerset

²⁷ Most of this is from Chautauqua with additions from other places as noted.

facilities and certification from the turbine manufacturer that the turbine can withstand excessive wind speeds, and for each WECS the make, model, a picture, and manufacturing specifications including noise decibel data and maximum rated capacity.²⁸

4. Vertical drawing of all WECS showing total height, turbine dimensions, tower and turbine colors, ladders, distance between the ground and the lowest point of any blade, and the location of climbing pegs and access doors. One drawing may be submitted for each WECS of the same type and total height.²⁹
5. A plot plan prepared by a licensed surveyor or engineer drawn in sufficient detail to clearly show the following:³⁰
 - a. Property lines, physical dimensions of the site, and the location, dimensions and types of existing structures and uses on the site.
 - b. Public roads and access roads,
 - c. Adjoining properties within [500] feet of the site including zoning designations, residences, schools, churches, hospitals, and libraries within [1,000] feet of each tower.
 - d. The location, elevation, and total height of each WECS,
 - e. Above- and below-ground utility lines within a radius of [1/1.5] times the total height of the WECS,
 - f. Setback lines,
 - g. All other proposed facilities on the site including transformers, electrical lines, substations, storage or maintenance units, ancillary equipment or structures, transmission lines, and fencing.
6. A full Environmental Assessment Form (“EAF”) and visual EAF addendum.³¹
7. A copy of written notice of the application to the Federal Aviation Administration (“FAA”), microwave communications link operators, and utilities, including utility interconnection data and a lighting plan to be reviewed by the FAA showing FAA required lighting, if applicable and other proposed lighting.³²

²⁸ Rotterdam, Evans

²⁹ Chautauqua

³⁰ Concord, Holland, Rotterdam, Somerset, Chautauqua

³¹ Chautauqua, Concord, Rotterdam, Caledonia require full EAF, Somerset just says EAF, Riga says short can be used initially but planning board can request full EAF

³² Somerset, Evans, Holland, Albion, Concord, Caledonia, Rotterdam

8. A detailed construction and installation plan including: a construction schedule, hours of operation, routes to be used by vehicles, gross weights and heights of vehicles, traffic impacts, drawings of access roads, adverse sound impacts, a detailed plan for disposal of debris, and the name and phone number of a contact person in the field.³³
9. An operation and maintenance plan providing for regular periodic maintenance schedules and any special maintenance requirements.³⁴
10. A detailed fire control and prevention and emergency response plan to coordinate with local emergency response providers.³⁵
11. A transportation plan describing ingress and egress to the proposed project site to deliver equipment and provide access during and after construction. Such plan shall describe any anticipated improvements to existing roads, bridges, or other infrastructure, as well as measures which will be taken to restore damaged or disturbed access routes following construction.³⁶
12. A decommissioning and site restoration plan as detailed in § 8(B) of this article.³⁷
13. Optional add-on: [A survey map showing federal, state, county or local parks, recognized historic or heritage sites, state-identified wetlands, or important bird areas as identified in federal, state, county, local or New York Audubon's GIS databases or other generally-available documentation.]
14. Optional add-on: [A landscaping plan showing the current vegetation, describing the area to be cleared, listing the specimens proposed to be added, and detailing regrading and restoration measure to be taken after construction according to New York State Agriculture and Markets and New York State Department of Environmental Conservation guidelines. The plan should also include details regarding how erosion and sediment control will be dealt with.]³⁸
15. Optional add-on: [A list of property owners, with their mailing addresses, within [2,500] feet of the outer boundaries of the proposed site.]³⁹
16. Studies or reports on:

³³ Caledonia, Evans, Holland, Rotterdam, Riga, Somerset, Concord

³⁴ Rotterdam

³⁵ Rotterdam, Chautauqua, Concord, Evans, Holland, Somerset

³⁶ Rotterdam, Evans, Holland, Concord

³⁷ Holland, Somerset, Rotterdam

³⁸ Somerset, Evans, Holland, Concord

³⁹ Rotterdam, Chautauqua, Holland (requires notification)

- a. Visual impact. This shall include a computerized photographic simulation showing the site fully developed and demonstrating any visual impacts from strategic vantage points. Color photographs of the proposed site from at least two locations accurately depicting the existing conditions shall be included. The study shall also indicate the color treatment of the facility's components and any visual screening incorporated into the project that is intended to lessen visual prominence.⁴⁰
- b. Noise. This shall include a description and map of the project's noise-producing features and the noise-sensitive environment, including the range of noise levels and the tonal and frequency characteristics expected. The report shall include noise levels at property lines, off-site residences, and any other sensitive noise-receptors, i.e. hospitals, libraries, schools, and places of worship, with identification of potential problem areas. The report shall cover low frequency, A-weighted, infrasound, pure tone, and repetitive/impulsive noise. It shall also include a report prepared by a qualified professional that analyzes the preexisting ambient noise. The report shall describe the project's proposed noise-control features, including specific measures proposed to protect construction workers and mitigate noise impacts for sensitive receptors, consistent with levels in this article.⁴¹
- c. Electromagnetic interference. This shall include an analysis of the potential for electromagnetic interference with microwave, radio, television, personal communication systems, 911, and other wireless communication.⁴²
- d. Avian impact. This shall include an analysis of bird and bat migration, nesting, and habitat that will be affected by the proposal. The applicant shall solicit input from the New York State Department of Environmental Conservation on such studies and shall follow any required protocols established, adopted, or promulgated by the Department.⁴³
- e. Geotechnical impact. This shall at a minimum include an analysis of soils engineering and engineering geologic characteristics of the site based on on-site sampling and testing, foundation design criteria for all proposed structures, slope stability analysis, grading criteria for ground preparation, cuts and fills, and soil compaction.⁴⁴

⁴⁰ Chautauqua, Rotterdam, Holland, Albion, Concord

⁴¹ Rotterdam, Chautauqua, Somerset, Evans, Holland, Concord

⁴² Chautauqua, Rotterdam

⁴³ Rotterdam, Holland, Concord

⁴⁴ Somerset, Evans, Holland, Concord

- f. Engineer's report. This shall be prepared by a professional engineer licensed in New York State and provide information regarding:
 - i. Ice throw. The report shall calculate the maximum distance that ice from the turbine blades could be thrown.⁴⁵
 - ii. Blade throw. The report shall calculate the maximum distance that pieces of the turbine blades could be thrown.⁴⁶
 - iii. Catastrophic tower failure. The report shall include a statement from the turbine manufacturer detailing the wind speed and conditions that the turbine is designed to withstand.⁴⁷
 - iv. Certification by a registered New York State professional engineer that the tower's design is sufficient to withstand wind-loading requirements for structures as established by the New York State Uniform Construction Code.⁴⁸
- g. Optional add-on: [Shadow flicker. This shall identify locations where shadow flicker may interfere with off-site residences and roadways and the expected duration of the flicker. The study shall identify measures that shall be taken to eliminate or mitigate the problem.]⁴⁹
- h. Optional add-on: [Fiscal and economic impact. This shall include a property value analysis prepared by a licensed appraiser in accordance with industry standards, regarding the potential impact on the value of properties adjoining the project site.]⁵⁰
- i. Optional add-on: [Land use and water impacts. This shall detail potentially impacted wetlands, surface water and groundwater resources, and the geology and land use of the site.]⁵¹

Comment on § 5(A)(5)(c)

Similar to the quantitative values chosen for windmill height and rated capacity, the quantitative values here were chosen among those in currently existing ordinances that encourage wind energy development. Other more stringent values observed were all structures within 750 and 1000 feet and 2000 feet for more sensitive structures.

⁴⁵ Chautauqua, Somerset, Evans, Holland, Concord

⁴⁶ Chautauqua, Somerset, Evans, Holland, Concord

⁴⁷ Chautauqua, Holland, Concord

⁴⁸ East Rochester, Parma, Chautauqua, Somerset, Schodack, Evans, Concord

⁴⁹ Rotterdam, Chautauqua, Holland, Concord

⁵⁰ Chautauqua, Rotterdam

⁵¹ Rotterdam

Comment on § 5(A)(7)

FAA requires aircraft warning lights on all towers taller than 200 feet. Only some large WECS would have to comply with this section.

6. Application Review Process

- A. Application. Applicants for a special use permit for a wind energy facility must submit [] copies of the application to the [Town/City/Village] clerk. [Town/City/Village] staff or consultants shall within [30] days determine if all required information is included in the application. If the application is incomplete, the applicant will be provided with a written statement detailing the missing information. If the application is complete, the [Town/City/Village] clerk will forward the application to the [Town/City/Village] [Board/Planning Board].⁵²
- B. Hearings. The [Board/Planning Board] shall conduct at least one public hearing on the application with notice given to the public in the manner customary for the municipality.⁵³ [Optional add-on: All adjoining property owners within [1,500] feet of the outer boundary of the project must be given written notice of the hearing via certified mail.⁵⁴] The [Town/City/Village] will also conduct the SEQRA review.⁵⁵
- C. Approval. The [Town/City/Village] [Board/Planning Board] may grant the special use permit, grant the special use permit with conditions, or deny the special use permit in writing.⁵⁶ [Optional add-on: A denial of the special use permit must be based on substantial evidence.]⁵⁷
- D. Optional add-on: [Findings. To grant the special use permit, the [Board/Planning Board] must find that the wind energy facility will not unreasonably interfere with the [Town/City/Village]'s orderly land use and development plans, the benefits to the applicant and the public exceed the burdens, the project is not detrimental to the public health, safety, or general welfare of the community, and the project complies with all of the relevant provisions of the zoning ordinance or will comply with those requirements based on conditions that may be attached to the approval unless variances have been granted.]⁵⁸
- E. Optional add-on: [Consultants. The [Town/City/Village] reserves the right to hire any consultants and/or experts reasonably necessary to assist the [Town/City/Village] in

⁵² Chautauqua, Rotterdam, Somerset (Chautauqua requires application fees for special use permit & has section on them)

⁵³ Cazenovia, Riga

⁵⁴ Rotterdam

⁵⁵ Chautauqua, Rotterdam, Somerset

⁵⁶ Chautauqua, Rotterdam, Concord, Holland, Somerset

⁵⁷ Concord, Holland

⁵⁸ Somerset, Concord, Holland

Comment on § 6(B)

Municipalities that choose to add this option should also add the option in § 5(A)(15).

7. Criteria for Approval of WECS

A. Safety Standards.

1. The total height of each WECS shall not be more than [500] feet.⁶⁰
2. The minimum distance from the ground to the rotor blade tips shall not be less than [15] feet.⁶¹
3. WECS shall not be climbable up to [10] feet above the ground.⁶² This can be achieved through anti-climbing devices or a fence around the tower with locking portals at least [6] feet high.⁶³
4. All access doors on towers or to electrical equipment shall be locked or fenced.⁶⁴
5. There shall be clearly visible signs on all WECS, electrical equipment, and wind energy facility entrances warning of electrical shock or high voltage and harm from revolving machinery. Signage shall also include a 24 hour emergency contact number.⁶⁵
6. WECS shall comply with all applicable FAA requirements for air traffic warning lights.⁶⁶
7. No artificial lighting shall be allowed on WECS except to the extent required by the FAA or other air safety authority. Minimal ground level security lighting is permitted.⁶⁷

⁵⁹ Rotterdam (requires applicant to deposit money with Town for consultants), Riga (Applicant must advance to town fee of \$1 per ft of height of each turbine, if not enough will be billed and payment made within 21 days)

⁶⁰ Southport, Parma, Eden, Riga, Westfield/Caledonia, NY model, Evans/ Somerset, Rotterdam

⁶¹ Southport/East Rochester/Parma/West Bloomfield/Schodack/Rotterdam (small WECS), Chautauqua, Westfield/Holland/Caledonia/Cazenovia/Riga/Rotterdam, Concord/Evans/Somerset

⁶² Parma, Eden/East Rochester/Albion/Schodack, NY/Caledonia/Cazenovia/Riga/Somerset, Concord/Holland, Evans

⁶³ West Bloomfield, Albion, Schodack, Chautauqua, Westfield, Southport

⁶⁴ Chautauqua, Evans, Holland, Riga, Somerset, Rotterdam

⁶⁵ Rotterdam, Cazenovia, Albion, Chautauqua, Evans, Holland, Riga, Somerset

⁶⁶ Caledonia, NY

⁶⁷ Cazenovia, Albion, Holland, NY, Riga, Rotterdam, Chautauqua

8. Each WECS shall be equipped with both manual and automatic controls to limit the rotational speed of the blade within the design limits of the rotor. Manual electrical and/or overspeed shutdown disconnect switches shall be provided and clearly labeled on the wind turbine structure. No WECS shall be permitted which lacks an automatic braking, governing, or feathering system to prevent uncontrolled rotation, overspeeding, and excessive pressure on the tower structure, rotor blades, and turbine components.⁶⁸
9. Optional add-on: [The [Town/City/Village] [Board] shall determine an acceptable range for ice throw based on the activities in the area of the WECS.]⁶⁹

B. Siting and Installation.

1. Road access to project site. Entrances to access roads must be gated and kept locked. The applicant must only use designated traffic routes established in the application review process. Routes should be chosen to minimize traffic impacts taking into consideration wind energy facility related traffic during school bus times, wear and tear on local roads, and impacts on local businesses. Existing roads should be used to the extent possible or if new roads are needed they should minimize the amount of land used and the adverse environmental impacts. The applicant is responsible for remediation of any damaged roads due to siting and installation of the wind energy facility.⁷⁰
2. Power lines. Power lines between turbines, between turbines and the on-site substation, and between turbines and any other buildings or structures should be completely underground.⁷¹ Power lines for connection to the public utility company and transmission poles, towers, and lines may be aboveground.⁷²
3. Connection of transmission lines from the wind energy facility to local distribution lines.
 - a. No construction of any WECS shall be started until evidence is given of a signed interconnection agreement or letter of intent with an interconnecting utility company.⁷³
 - b. The wind energy facility shall meet the requirements for interconnection and operation as set forth in the electric utility's then current service regulations applicable to wind power generation facilities.⁷⁴

⁶⁸ NY, Concord, Evans, Holland, Caledonia, Cazenovia, Somerset, West Bloomfield, Schodack, Albion, Rotterdam, Chautauqua, Eden

⁶⁹ Concord, Holland, Somerset

⁷⁰ Chautauqua, Concord, Holland, Rotterdam

⁷¹ Chautauqua, Westfield, Evans, Caledonia, Cazenovia, Somerset, Holland, Rotterdam, Albion, NY Model

⁷² Albion, NY Model

⁷³ Eden, Somerset, Schodack, Riga

- c. Transmission lines and points of connection to local distribution lines should be combined to the extent possible. The wind energy facility should be connected to existing substations if possible, or if new substations are needed, the number should be minimized.⁷⁵
4. Any construction on agricultural land should be conducted according to the New York State Department of Agriculture and Market “Guidelines for Agricultural Mitigation for Wind Power Projects”.⁷⁶

C. Setbacks.

1. Each WECS shall be set back [1.5] times tower height from all existing residences on a non-participating landowner’s property.⁷⁷
2. Each WECS shall be set back [2] times tower height from the nearest school, hospital, church, or public library.⁷⁸
3. Each WECS shall be set back [1] times tower height from all property lines, overhead utility or transmission lines, other towers, electrical substations, meteorological towers, and public roads.⁷⁹
4. Optional add-on: [Each WECS shall be set back [1.5] times tower height from all structures and buildings other than residences on a non-participating landowner’s property.]⁸⁰
5. Waivers. Setbacks may be waived by the [Town/City/Village] [Board] if there is written consent from the affected property owner at the beginning of construction stating that they are aware of the WECS and the setback limitations imposed by this article and that their consent is granted to allow reduced setbacks. Optional add-on: [In order to advise all subsequent owners of the burdened property, the consent, in the form required for an easement describing the benefitted and burdened properties, must be recorded in the [County Clerk]’s office. The easement shall be permanent and may not be revoked without the consent of the [Town/City/Village] [Board], which consent shall be granted upon either the completion of decommissioning of the benefitted WECS in accordance with this article, or the acquisition of the burdened parcel by the owner of the benefitted

⁷⁴ NY Model

⁷⁵ NY Model

⁷⁶ Chautauqua, Rotterdam

⁷⁷ PA Model, Westfield, NY Model, NY Model, Concord/Holland, Concord/Holland/PA Model/NY Model, Chautauqua, Evans/Somerset/Rotterdam/NY Model, Riga

⁷⁸ PA Model/NY Model, Chautauqua, Riga, NY Model

⁷⁹ Eden/West Bloomfield/Parma, PA Model/NY Model/Riga, Westfield, NY

Model/Albion/Holland/Chautauqua/Concord/Somerset/Rotterdam/Westfield, Chautauqua, Riga

⁸⁰ Concord, Evans/Holland/Riga/Somerset

parcel.] If written consent is not obtained, a variance from the Zoning Board of Appeals shall be required to waive setback requirements.⁸¹

D. Nuisance.

1. Noise. The noise level generated by a WECS shall not exceed [45] A-weighted decibels (“dBA”) measured at the site property line. Independent certification shall be required before and after construction demonstrating compliance with this requirement. If the ambient noise level measured at the site property line exceeds the standard, the standard shall be equal to the ambient noise level.⁸² The noise level generated by a WECS must also not increase ambient sound levels by more than 3 dBA at any sensitive noise receptors, including residences, hospitals, libraries, schools, and places of worship, within 2,500 feet of the site property line.⁸³
2. Interference with electromagnetic communications, radio signals, microwave and television signals. No wind energy facility shall be installed in any location where its proximity with microwave communications, fixed broadcast, retransmission or reception antenna for radio, television, or wireless phone, or other personal communications systems would produce electromagnetic interference with signal transmission or reception.⁸⁴

E. Environmental and Visual Effects.

1. Advertising. No advertising shall be allowed on any part of the wind energy facility including the fencing and support structures. No lettering, company insignia, brand names, logo, or graphics shall be allowed on the tower, hub, or blades. Reasonable identification of the turbine manufacturer, facility owner, and facility operator is permitted.⁸⁵
2. Colors and surfaces of WECS. Colors and surface treatment of all WECS shall minimize visual disruption by using white, beige, off-white, gray or another non-reflective, unobtrusive color. WECS shall also use materials, textures, screening, and landscaping that blend the facility into the natural setting and existing environment.⁸⁶

⁸¹ Chautauqua (mostly), Holland, Concord, Westfield, Somerset, Rotterdam (some written consent enough)

⁸² Chautauqua, Westfield, Caledonia (over all),

Chautauqua/Cazenovia/Westfield/Caledonia/Riga/Concord/Evans/Holland/Somerset, PA Model/NY

Model/Southport

⁸³ Holland

⁸⁴ NY Model, Chautauqua, Evans, Cazenovia, Rotterdam, Eden, Parma, Riga, Somerset, Albion

⁸⁵ Concord, Caledonia, NY Model

⁸⁶ Concord, Evans, Holland, Somerset, NY Model, Evans, Caledonia, Somerset, Albion

3. Landscaping. The landscaping of the wind energy facility should be appropriate to screen accessory structures from roads and adjacent residences. It should be designed to minimize the impacts of land clearing and loss of open space.⁸⁷
4. Ecosystems and animals. Wind energy facilities shall have no significant adverse impact on endangered or threatened species, particularly birds and bats, or critical habitats.⁸⁸
5. Optional add-on: [Visual setbacks. WECS should be set back from the tops of visually prominent ridgelines and designed and located to minimize adverse visual impacts to neighboring residential areas. WECS shall not be installed in any location that would substantially detract from or block the view of all or a portion of a recognized scenic vista as viewed from any public viewing areas such as public parks, roads, trails, or open space.]⁸⁹
6. Optional add-on: [Shadow flicker. WECS shall be located in a manner that makes reasonable efforts to minimize shadow flicker to any [occupied building/residences/roadway] on a non-participating landowner's property. Mitigation measures including landscaping shall be incorporated into any special use permit approval.]⁹⁰

F. Operation.

1. Maintenance. An annual report of operations and maintenance shall be submitted to the [Town/City/Village].
 - a. All WECS must be maintained in operational condition meeting all of the requirements of this article and other permit conditions at all times, subject to reasonable maintenance and repair outages. If the WECS becomes inoperative, damaged, unsafe, or violates a permit condition or standard, the owner/operator shall remedy the situation within [90] days after written notice from the [Code Enforcement Officer]. The [Code Enforcement Officer] or the [Town/City/Village] [Board] may extend the period by [90] days.⁹¹
 - b. If the WECS is not repaired or brought into permit compliance within the timeframe stated above, the [Town/City/Village] may, after a public hearing, order remedial action or revoke the special use permit and order removal of the WECS within [90] days.⁹²

⁸⁷ NY Model, Caledonia, Chautauqua, Riga, Rotterdam, Chautauqua, Evans, Concord, Holland

⁸⁸ Chautauqua, Concord, Evans, Holland, Somerset

⁸⁹ NY Model, Albion, Cazenovia

⁹⁰ PA Model, Concord, Holland, Rotterdam

⁹¹ Rotterdam, Chautauqua, Concord

⁹² Chautauqua, Concord

2. Inspections. All wind energy facilities shall be inspected annually for structural and operational integrity by a New York State licensed professional engineer, who has been approved by the [Town/City/Village].⁹³ The [Town/City/Village] [Code Inspection Officer]/[a New York State licensed engineer] has the right to enter the premises of the wind energy facility at any reasonable time to inspect the WECS as long as 24 hour advance notice is given to the operator.⁹⁴

Comment on § 7(A)

Quantitative values chosen in this section represent those most friendly to wind energy development while maintaining sufficient safety standards. Some municipalities may choose to implement different values based on individual circumstances. Chosen values for height varied from 100 feet to 450 feet. Chosen values for minimum distance from ground varied from 20 feet to 50 feet. Chosen values for climbable distance from ground varied from 12 feet to 30 feet.

Comment on § 7(C)

The quantitative choice for WECS setbacks is one of the more crucial choices made. Again, the values chosen by the ordinance represent those friendly to wind energy development. However, these values may be modified based on the individual circumstances faced by municipalities. Chosen values for residence setback varied from 1.2 to 2.25 times the height of the WECS or from 1,000 to 3,000 feet total. For the model ordinance, a multiplier was chosen because it makes setbacks more flexible for various types of WECS. Chosen values for setbacks from sensitive buildings ranged from 1,000 to 3,000 feet. Chosen values for setbacks from property lines ranged from 1.1 to 1.5 times height of WECS or 1,000 to 1,500 feet.

Comment on § 7(D)

Other municipalities chose values between 50 to 55 dBa.

8. Abatement, Decommissioning, Site Restoration Plan and Bond

A. Abatement and Decommissioning.

1. If the wind energy facility is not operated for a continuous period of [12] months, the [Town/City/Village] will contact the applicant by registered mail and provide [45] days for a response. The applicant is required to respond and set forth reasons for the stoppage and a timetable for action. If the applicant does not respond or the [Town/City/Village] deems the timetable unreasonable, it must notify the applicant and the applicant must remove the WECS at its own expense according to the decommissioning plan within [90] days. If the applicant does not remove the WECS within the above stated time frame the [Town/City/Village] can contract for removal and restoration using the money in the decommissioning bond and charge the applicant any difference in cost.⁹⁵

⁹³ Concord/Evans/Holland/Somerset/Caledonia, Westfield

⁹⁴ Westfield, Caledonia, Cazenovia, Parma, Eden, Evans, Somerset, Concord, Holland

⁹⁵ Eden (45 days), Westfield, Chautauqua, Concord, Holland, Caledonia, Rotterdam (90 days), Albion

B. Decommissioning and Site Restoration Plan.⁹⁶

1. The plan shall include:

- a. The anticipated life of the WECS,
- b. Triggering events for decommissioning and removal,
- c. The estimated decommissioning costs in current dollars,
- d. How the estimate was determined,
- e. The method by which such decommissioning costs will be kept current, and
- f. The manner in which the WECS will be decommissioned and the site restored including removal of all structures, turbines, cabling, electrical components, debris, and foundations to a depth of [4] feet, restoration of the soil and vegetation, and restoration of roads and driveways, less any fencing or residual minor improvements requested by the landowner.⁹⁷

C. Bond.

1. A decommissioning bond payable to the [Town/City/Village] in an amount to be determined by the [Town/City/Village] for removal of nonfunctional WECS and restoration of the wind energy facility site shall be maintained by the applicant.⁹⁸
2. The bond must be confirmed to be sufficient to cover decommissioning and site restoration costs every [5] years.⁹⁹

10. Liability Insurance

- A. Prior to issuance of a building permit, the applicant shall provide the [Town/City/Village] with proof of a general liability insurance policy at a level to be determined by the [Town/City/Village] [Board] in consultation with the [Town/City/Village]'s insurer, to cover damage or injury that might result from failure of any part of the wind energy facility.¹⁰⁰

11. Transfer and Replacement

⁹⁶ Rotterdam, Chautauqua, Concord, Eden, Holland, Evans, Somerset, Riga

⁹⁷ PA Model, Holland, Evans/Somerset, Riga

⁹⁸ Chautauqua, Holland, Concord, Riga, Cazenovia, PA Model, Rotterdam, Caledonia

⁹⁹ Riga, Concord/Eden/Holland

¹⁰⁰ Westfield, Eden, Evans, Caledonia, Somerset, Rotterdam, some put levels of money req'd (\$1M/\$5M)

- A. If ownership of a WECS changes, the new owner must present proof to the [Town/City/Village] clerk that all required bonds and insurance policies remain in full force [30] days prior to the transfer of ownership.¹⁰¹
- B. Any replacement of or modification or alteration to a WECS, excluding regular maintenance and repair, requires an amendment to the special use permit.¹⁰²
- C. Replacement of a WECS may occur without [Town/City/Village] [Board/Planning Board] approval when there will be:
 - 1. No increase in the total height of the WECS,
 - 2. No change in the location of the WECS,
 - 3. No additional lighting on the WECS, and
 - 4. No increase in noise produced by the WECS.¹⁰³

12. Requirements for Wind Measurement Towers

- A. The Town Board acknowledges that prior to construction of a WECS, a wind site assessment is conducted to determine the wind speeds and the feasibility of using particular sites. Installation of wind measurement towers, also known as anemometer towers, shall be permitted as a special use in [] districts.¹⁰⁴
- B. Anyone seeking to build a wind measurement tower must submit an application for a special use permit to the [Town/City/Village] [Board/Planning Board]. The special use permit is valid for up to [2] years and may be renewed.¹⁰⁵
 - 1. An application for a wind measurement tower shall include:
 - a. Name, address, and telephone number of the applicant.
 - b. Name, address, and telephone number of the property owner. If the property owner is not the applicant, the application shall include a letter or other written permission signed by the property owner confirming that the property owner is familiar with the proposed applications and authorizing the application.

¹⁰¹ Concord, Holland

¹⁰² Concord, Holland, Somerset, Chautauqua, Albion

¹⁰³ Chautauqua, Albion

¹⁰⁴ Chautauqua

¹⁰⁵ Chautauqua, Evans

- c. Address of each proposed tower site, including tax map section, block, and lot number.
 - d. Site plan.
 - e. Decommissioning plan, based on the criteria in this article for WECS, including a security bond or cash for removal.¹⁰⁶
- C. Wind measurement towers must be set back from property lines at least [1] times the total height of the tower.¹⁰⁷
- D. Removal.
1. Wind measurement towers shall be removed no later than date applicable special use permit expires.
 2. Subsequent to removal of wind measurement towers, installation sites shall be restored to a condition substantially similar to the site's condition upon installation of wind measurement tower.

13. Enforcement and Violations

- A. The [Town/City/Village] [Board] shall appoint such [Town/City/Village] staff or outside consultants as it sees fit to enforce this article.¹⁰⁸
- B. During construction, the [Town/City/Village] [Code Enforcement Officer] may issue a stop work order at any time for violations of this ordinance, the special use permit, building permit, or site plan approval.¹⁰⁹
- C. Any person owning, controlling, or managing any building, structure, or land who undertakes a wind energy facility in violation of this article or in noncompliance with the terms and conditions of any permit issued pursuant to this article, or any order of the [Code Enforcement Officer], and any person who assists in so doing, shall be guilty of an offense and subject to a fine of not more than [\$350]. Every such person shall be guilty of a separate offense for each [day/week] such violation shall continue. The [Town/City/Village] may institute a civil proceeding to collect civil penalties in the amounts set forth herein for each violation.¹¹⁰
- D. In case of any violation or threatened violation of any of the provisions of this article, including any permits issued pursuant to this article, the [Town/City/Village] may

¹⁰⁶ Chautauqua

¹⁰⁷ Chautauqua

¹⁰⁸ Chautauqua, Rotterdam

¹⁰⁹ Evans, Somerset

¹¹⁰ Eden/Parma, Albion/Chautauqua, Rotterdam

Center for Climate Change Law at Columbia Law School

Model Municipal Wind Siting Ordinance

DRAFT, last updated January 20, 2011

Please send comments to: Danielle Sugarman at dsugar1@law.columbia.edu

institute any appropriate action or proceeding to prevent such unlawful erection, structural alteration, reconstruction, moving and/or use, and to restrain, correct or abate such violation to prevent the illegal act.¹¹¹

14. Host Community Agreements

Nothing in this article limits the [Town/City/Village]'s ability to enter into an agreement with the applicant to compensate the [Town/City/Village] for expenses or impacts of the WECS.¹¹²

15. New York State Real Property Tax Law exemption

Optional add-on: [The [Town/City/Village] exercises its right to opt out of the tax exemption provisions of Real Property Tax Law 487.]¹¹³

Comment on § 15

Law 487 states that real property containing a solar, wind, or farm waste energy system approved by the State Energy Research and Development Authority is exempt from taxation for a period of 15 years to the extent of any increase in assessed value due to the system. Such property is liable for special ad valorem levies and special assessments. The exemption as reenacted in 1990 is subject to local option. Thus municipalities that opt out of this law can still tax the increase in assessed value of property with a wind system on it.

¹¹¹ Chautauqua

¹¹² Chautauqua, Holland

¹¹³ Chautauqua, Concord, Evans, Holland, Somerset, Albion