

Model Municipal Wind Siting Ordinance
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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