

U. 15
PB

DEFINITIONS
Commercial Wind Energy Conversion Systems (WECS)
as amended by Town Board
February 24, 2011

A WEIGHTED SOUND PRESSURE LEVEL — The sound pressure level measured in decibels (dBA) and is equal to 20 times the logarithm to the base 10 of the ratio of root mean square sound pressure to a reference sound pressure, weighted by frequency band following standard procedures. The reference sound pressure in air is $2 * 10^{-5}$ Pascals. The measurement of the sound pressure level may be done according to the American National Standard, Quantities and Procedures for Description and Measurement of Environmental Sound (ANSI/ASA S12.9-1993, Parts 1,2 and 3, Reaffirmed by ANSI April 2008), published by the Acoustical Society of America (ASA) and the American National Standards Institute (ANSI), or other accepted procedures.

PARTICIPATING PROPERTY OWNER - an entity which has entered into a lease, easement, or other contractual arrangement with the applicant for a commercial Wind Energy Conversion System (WECS) facility covering land in the Town of Allegany.

NON-PARTICIPATING PROPERTY OWNER - an entity which has not entered into any contractual arrangement with the applicant for a commercial Wind Energy Conversion System (WECS) facility covering land in the Town of Allegany.

NOISE SENSITIVE PROPERTY- residences, hospitals, public libraries, schools, and places of worship in the Town of Allegany. Property used in industrial or agricultural activities is not Noise Sensitive Property unless it is regularly used for one of the purposes listed herein in more than an incidental manner

following definitions are from August 28, 2007 amendment

WIND ENERGY CONVERSION SYSTEM (WECS) – Any mechanism designed for the purpose of converting wind energy into electrical energy. A WECS may include one or more wind turbines, towers, associated control or conversion electronics, transformers, and/or other maintenance or control facilities or other component used in the system. A WECS may be either a Commercial Wind Energy Conversion System or a Non-Commercial Wind Energy Conversion System.

- (a) COMMERCIAL WIND ENERGY CONVERSION SYSTEM - A wind energy conversion system that is intended solely to generate electrical power for sale to the power grid.
- (b) NON-COMMERCIAL WIND ENERGY SYSTEM - A wind energy conversion system that is incidental and subordinate to another use on the same parcel and that supplies electrical power solely for on-site use, except that when a parcel on

**Commercial Wind Energy Conversion Systems (WECS)
as amended by Town Board
February 24, 2011**

Section 5.25 Commercial Wind Energy Conversion Systems (WECS)

(A) Intent and Purpose

The Town of Allegany recognizes that wind energy is an abundant, renewable and nonpolluting energy resource of the Town and that its conversion to electricity will reduce dependence on nonrenewable energy resources and decrease air and water pollution that result from the use of conventional energy sources.

The purpose of these regulations for Commercial Wind Energy Conversion Systems (WECS) is to ensure that development of these facilities will have a minimal impact on adjacent properties and to protect the health, safety and welfare of residents of the Town. Specifically, regulation of the siting and installation of wind turbines is necessary for the purpose of protecting the health, safety, and welfare of neighboring property owners and the general public. Wind Energy Facilities represent significant potential aesthetic impacts because of their large size, lighting, and shadow flicker effects. If not properly regulated, installation of Wind Energy Facilities can create drainage problems through erosion and lack of sediment control for facility sites and access roads, and harm farmlands through improper construction methods. Wind Energy Facilities may present a risk to bird and bat populations if not properly sited. If not properly sited, Wind Energy Facilities may present risks to the property values of adjoining property owners. Wind Energy Facilities are significant sources of noise, which, if unregulated, can negatively impact adjoining properties. Construction of Wind Energy Facilities can create traffic problems and damage local roads. Wind Energy Facilities can cause electromagnetic interference issues with various types of communications.

(B) Application Process

- (1) No Commercial WECS shall be constructed, reconstructed, modified, or operated in the Town of Allegany except in a Wind Energy Overlay Zone created by the Town Board. Prior to construction of any commercial WECS, the project proponent shall first obtain Special Use Permit and Site Plan Approval from the Town of Allegany Planning Board and a Building Permit from the Town's Code Enforcement Officer.

Upon receipt of an application, the Special Use Permit and Site Plan Approval shall be processed by the Planning Board in accordance with this Section. The rezoning request will be referred to the Planning Board as required by Section 12.02 of this Ordinance, except that the Town Board may wait until the Planning Board has completed its application review, and any variances the Zoning Board of Appeals has granted, if required, prior to holding its public hearing. Upon completion of the Special Use Permit and Site Plan and the Town Board shall consider rezoning request. The Town Board and Planning Board may, if they wish, hold joint public hearings.

- (b) Plan for ingress and egress to the proposed project site including:
 - i. A description of the access route from the nearest State, County, and/or Town-maintained roads
 - ii. Road surface material, stating the type and amount of surface cover.
 - iii. Width and length of access route.
 - iv. Dust control procedures during construction and transportation.
 - v. A road maintenance schedule or program.
- (c) Proposed construction plan in sufficient detail to permit evaluation of all potential environmental impacts. Topics covered should include (but are not necessarily limited to) proposed construction schedule, hours of operation; preliminary designation of heavy haul routes; a list of material equipment, and loads to be transported; identification of temporary facilities intended to be constructed. Prior to issuance of building permits for approved projects a detailed construction plan including but not limited to construction schedule, hours of operation; designation of heavy haul routes; a list of material equipment, and loads to be transported; identification of temporary facilities intended to be constructed and contact representative in the field with name and phone number.
- (d) Preliminary Erosion and Sediment Control Plan (A draft SWPPP will meet this requirement); with final plans to be submitted prior to issuance of building permits for approved projects.
- (e) Specific information on the type, size, height, rotor material, rated power output, performance, safety, and noise characteristics of each commercial wind turbine model, tower, and electrical transmission equipment.
- (f) Photographs and/or detailed drawings of each wind turbine model, including the tower and foundation.
- (g) Visual Assessment, prepared in conformance with the NYSDEC's Program Policy Assessing and Mitigating Visual Impacts, including a detailed or photographic simulation showing the site fully developed with all proposed wind turbines and accessory structures. The Planning Board shall determine which viewpoints the visual assessment shall, at a minimum, include.
- (h) Noise analysis. A Noise Analysis shall be furnished which shall include the following:
 - i. A description of the project's noise-producing features, including the range of noise levels expected, and the tonal and frequency characteristics expected. The noise report shall include low frequency, infrasound, pure tone, and repetitive/impulsive sound.

- (l) Shadow Flicker Study: The applicant shall conduct a study on potential shadow flicker. The study shall identify locations where shadow flicker may be caused by the WECSs and the expected durations of the flicker at these locations. The study shall identify areas where shadow flicker may interfere with residences and describe measures that shall be taken to eliminate or mitigate the problem.
- (m) Study of potential impacts to birds and bats, using methodology approved by NYSDEC or another agency acceptable to the Planning Board.
- (n) Decommissioning and Site Restoration Plan
- (o) FAA notification: A copy of written notification to the Federal Aviation Administration.
- (p) Utility or NYISO notification: Utility or NYISO interconnection data including details of any physical improvements required to create an interconnection between the electric grid and the proposed WECS.
- (q) Notification to microwave communications link operators: An application that includes any wind turbine which is located within two miles of any microwave communications link shall be accompanied by a copy of a written notification to the operator of the link.
- (r) Other information: Such additional information as may be reasonably required by the Town Engineer, Town Planner or Planning Board for an adequate assessment of the proposed project.
- (s) The Planning Board may determine that not all of these application materials is necessary for a particular proposed project. Any requirements determined by the Planning Board not to be deemed necessary must be fully documented with the reasons clearly noted.

(4) SEQR Review

Pursuant to Section 617.13 of NY State Environmental Quality Review Regulations, and Section 9.08 of the Town's Site Plan Review regulations in the Town's Zoning Ordinance II, the Town may hire consultants to assist the Planning Board in its review of the potential impacts of a proposed project and the assessment of impacts provided by the applicant. The Town will charge the applicant for the cost of such consultant to the extent allowed in Part 617.13 and/or Section 9.08.

(C) Criteria for Approval

In addition to the criteria contained in Article VIII and Article IX of this Zoning Ordinance, the Planning Board shall use the following criteria to evaluate all Commercial Wind Energy Conversion Systems:

- (b) Low frequency noise: A commercial wind energy facility shall not be operated so that impulsive sound below 20 Hz adversely affects the habitability or use of any dwelling unit, hospital, school, library, nursing home, or other sensitive noise receptor.
- (c) Noise setbacks: The Planning Board may impose a noise setback that exceeds the other setbacks set out in this section if it deems that such greater setbacks are necessary to protect the public health, safety and welfare of the community.
- (d) Within one year of commencement of commercial operation, the project proponent shall submit a noise study of operation conditions to ensure that the project is in compliance with the standards of this section. The study shall be based on receptor points identified during the application review process. In addition to the initial study, the Planning Board may require periodic additional noise studies.

(3) Noise and Setback Easements

In the event that a Commercial WECS does not meet a setback requirement or exceeds the noise criteria, above, the Planning Board may grant a waiver of the setback and/or noise criteria, except for the setback required by Sub-section 5.25(C)(1)(a), in the following circumstances:

- (a) Written consent from the affected property owners is presented to the Planning Board, stating that they are aware of the WECS and the noise and/or setback limitations contained in this Zoning Ordinance, and that consent is granted to (1) allow noise levels to exceed the maximum limits otherwise allowed and/or (2) setbacks less than required; and
- (b) In order to advise all subsequent owners of the burdened property, the consent, in the form required for an easement, has been recorded in the Cattaraugus County Clerk's Office describing the benefited and burdened properties. Such easements shall be permanent and shall state that they may not be revoked without the consent of the Planning Board, which consent shall be granted upon either the completion of the decommissioning of the benefited WECS in accordance with this Article or the acquisition of the burdened parcel by the owner of the benefited parcel or the WECS.

(4) Interference with television, microwave and radio reception

The applicant must submit information that the proposed construction of the Commercial Wind Energy Conversion System will not cause interference with microwave transmissions, cellular transmissions, residential television interference or radio reception of domestic or foreign signals. The applicant shall include specific measures proposed to prevent interference, a complaint procedure, and specific measures proposed to mitigate interference impacts.

- (g) **Signage:** Appropriate warning signage shall be placed on wind turbine towers, electrical equipment, and wind energy facility entrances. Signage shall also include two twenty-four-hour emergency contact numbers to the owner of the wind turbine in accordance with Local, State, and Federal Codes.
- (7) **Ice throw:** The Planning Board shall determine the acceptable ice throw range based on the activities in the area, location and calculations of the ice throw.
- (8) **Fire hazard protection:** The applicant shall submit a Fire Control and Prevention Program that is appropriate and adequate for the proposed facility. The proposed program may include, but is not limited to, the following
 - a. Fireproof or fire resistant building materials.
 - b. Buffers or fire retardant landscaping.
 - c. Availability of water.
 - d. An automatic fire-extinguishing system for all buildings or equipment enclosures of substantial size containing control panels, switching equipment, or transmission equipment-without regular human occupancy.
 - e. Provision of training and fire fighting equipment for local fire protection personnel and/or other emergency responders.

(9) Impact on wildlife species and habitat

Development and operation of a commercial wind energy facility shall not have a significant adverse impact on endangered or threatened fish, wildlife, or plant species or their critical habitats, or other significant habitats identified in the Town of Allegany Comprehensive Plan and/or the studies and plans of other regional agencies, based on criteria established by the Federal or State regulatory agencies, as determined by the Town of Allegany Planning Board during SEQRA review. The impact of a commercial WECS on migratory birds and bats shall be evaluated and mitigated based on SEORA findings.

(10) Visual Impact

- (a) No advertising sign or logo shall be placed or painted on any part of any commercial wind energy conversion system.
- (b) Wind turbines shall be painted a non-obtrusive (e.g., such as white, gray, or beige) color that is non-reflective. In order to reduce any daytime lighting requirements by the FAA, the Planning Board may require consultation with the FAA to determine an appropriate color for the structures.
- (c) Where more than one wind turbine is proposed, the project shall use wind turbines whose appearance is similar throughout the project, to provide reasonable uniformity in terms of overall size, geometry and rotational speed.
- (d) Unless required by the FAA or by the Town of Allegany Planning Board, no lighting shall be installed on the WECS turbine or tower, except for ground level security lighting.

- (6) The applicant and his/her successors or assigns in interest, shall maintain the required bond funds for the duration of the Special Use Permit.

(E) Road Bond

- (1) Construction of WECSs poses potential risks because of the large size of construction and transport (delivery) vehicles and their impact on traffic safety and their physical impact on local roads. Construction and delivery vehicles shall use traffic routes established as part of the application review process. Factors in establishing such corridors shall include: (1) minimizing traffic impacts from construction and delivery vehicles; (2) minimizing WECS-related traffic during times of school bus activity; (3) minimizing wear and tear on local roads; and (4) minimizing impacts on local business operations. Permit conditions may limit WECS-related traffic to specified routes and include a plan for disseminating traffic route information to the public.
- (2) The applicant is responsible for remediation of damage to public roads caused by WECS-related traffic, after completion of the installation of the WECS. To ensure that this remediation occurs, prior to the issuance of a Building Permit, the project sponsor shall post a public improvement bond in an amount, as determined by the Town Board and Highway Superintendent, sufficient to repair any damage that occurs to Town roads during the construction phase of the project. The Town Attorney shall approve the form of the bond.
- (3) In the event that any post construction maintenance or replacement of components, which could affect Town roads, is necessary, the project owner/operator shall notify the Town and a new bond for any potential damage to Town roads shall be posted.

(F) Certification

The applicant shall provide the following certifications and studies as part of an application for Building Permit.

- (1) Certification of structural components: The foundation, tower and compatibility of the tower with the rotor and rotor-related equipment shall be certified in writing by a structural engineer registered in New York. The engineer shall certify compliance with good engineering practices and compliance with the appropriate provisions of the Building Code that have been adopted in New York State. This shall be provided prior to the issuance of the Building Permit.
- (2) Certification of post construction: After completion of construction of the Wind Energy Conversion System, the applicant shall provide a post-construction certification from a licensed professional engineer registered in the State of New York that the project complies with applicable codes and industry practices and has been completed according to the design plans. This certification shall be provided to the Code Enforcement Officer and shall be maintained in a permanent file.

(J) Permit Revocation

- (1) A WECS shall be maintained in operational condition at all times, subject to reasonable maintenance and repair outages. Operational condition includes meeting all noise requirements, all other standards and requirements of this ordinance, and other permit conditions.
- (2) Should a WECS become inoperative, or should any part of the WECS be damaged or become unsafe or should a WECS violate a permit condition, or violate a standard or requirement of this ordinance, the owner/operator shall remedy the situation within 90 days after written notice from the CEO. The Town Board may extend this period.
- (3) Upon notice from the CEO that the WECS is not repaired or made operational or brought into permit compliance after said notice pursuant to Section J(2) above, the Planning Board shall hold a public hearing at which both the public and the operator/owner are given the opportunity to be heard and present evidence, including a plan to come into compliance. Following the close of the public hearing, the Planning Board may either:
 - (a) order compliance within a stated timeframe; or
 - (b) Revoke the Special Use Permit and order removal of the WECS within 90 days and site remediation pursuant to the approved Decommissioning and Site Restoration Plan.

(K) Decommissioning of WECS

(1) Non-functional and/or inoperative WECS defined

- (a) If any Commercial WECS remains non-functional or inoperative for a continuous period of one (1) year, the permittee shall remove the WECS at his/her own expense and restore the site, in accordance with the approved Decommissioning and Site Restoration Plan. A commercial WECS shall be deemed non-functional and/or inoperative if it has not generated power within the preceding twelve months.
- (b) As a condition of approval of any Special Use Permit, the Planning Board may request that the applicant periodically submit documentation reporting the power output generated by the WECS.

(2) Use of Decommissioning Bond

- (a) Any non-functional or inoperative WECS, or any WECS for which the Special Use Permit has been revoked, shall be removed from the site and the site restored in accordance with the approved Decommissioning and Site Restoration Plan within 90 days of the date on which the facility becomes non-functional or inoperative, as defined above, or of the revocation of the Special Use Permit.