

§ 105-133 Wind energy facilities.

[Added 11-12-2009 by L.L. No. 2-2009]

- A. Purpose.** The purpose of the section is to guide the construction and operation of wind energy facilities, small wind energy facilities, wind measurement towers, and non-grid-only wind energy facilities in the Town of Greenfield, Saratoga County, subject to reasonable conditions that will protect the public health, safety and welfare.
- B. Applicability.** The requirements of this section shall apply to all wind energy facilities, small wind energy facilities, wind measurement towers, and non-grid-only wind energy facilities proposed, operated, modified, or constructed within the municipal boundaries of the Town of Greenfield, Saratoga County. Wind energy facilities, small wind energy facilities, and wind measurement towers shall be allowed throughout all areas of the Town, subject to the requirements of this section.
- C. Permits.** A special permit application is to be filed with the Planning Board at least two weeks (14 days) prior to the Planning Board meeting in accordance with § 105-52. Exemption: The Town's Building Department shall have the sole discretion to review, consider and issue a non-grid-only wind energy facility permit.
- D. Application requirements: small wind energy facility permit.** A complete application for a wind energy facility permit, small wind energy facility permit, or wind measurement tower permit shall include:
- (1) A special permit application is to be filed with the Planning Board at least two weeks (14 days) prior to the Planning Board meeting in accordance with § 105-52. Exemption: The Town's Building Department shall have the sole discretion to review, consider and issue a non-grid-only wind energy facility permit.
 - (2) A site plan prepared by a licensed professional engineer, including:
 - (a) Property lines and physical dimensions, including a topographic map of the site; location, approximate dimensions and types of existing structures and uses on the site;
 - (b) Public roads and adjoining properties within 300 feet of the boundaries of any proposed wind turbines;
 - (c) Location of each proposed wind turbine, wind measurement tower and accessory facilities or equipment;
 - (d) Location of all aboveground and below-ground utility lines on the site as well as transformers, the interconnection point with transmission lines, and other ancillary facilities or structures, including, without limitation, accessory facilities or equipment;
 - (e) Locations of setback distances as required by this section;
 - (f) All other proposed facilities, including, without limitation, access roads, electrical substations, storage or maintenance units, and fencing;
 - (g) All site plan application materials required under § 105-133 of the Zoning Law of the Town of Greenfield; and
 - (h) Such other information as may be required by the Planning Board.
- E. Wind turbine specifications.** The proposed make, model, picture and manufacturer's specifications of the proposed wind turbine and tower model(s), including noise decibel data, and material safety data sheet documentation for all materials used in the operation of the equipment shall be provided for each proposed wind turbine. If a particular wind turbine has not been selected by the applicant at the time of application due to a constraint as to the availability of equipment or the inability of the applicant to obtain appropriate supplier commitments, such information shall nevertheless be provided to the Planning Board with an acknowledgement that the type of wind turbine may be modified during application review.
- F. Lighting plan.** A proposed lighting plan to be submitted to and reviewed by the Federal Aviation Administration for any structure equal to or more than 200 feet above ground, or as may otherwise be required by the Federal Aviation Administration or local, state or federal law or regulation.
- G. Construction schedule.** A construction schedule describing anticipated commencement and completion dates, including a traffic analysis with a description of the routes to be used by construction and delivery vehicles.
- H. Operation and maintenance schedules.** An operations and maintenance plan providing for regular periodic maintenance schedules and any special maintenance requirements. Procedures and notification requirements for restarts during icing

events should be proposed and established by the Planning Board.

- I. Adjacent property owners. List of property owners, with their mailing addresses within 300 feet of the outer boundaries of the proposed site.
- J. Application requirements: wind energy facilities.
 - (1) A decommissioning plan that provides for an estimation of decommissioning costs, the method of ensuring that funds shall be available for decommissioning and restoration of the site and any off-site areas disturbed by or utilized during decommissioning, the method by which the decommissioning cost estimate shall be kept current, and the manner in which the wind energy facility shall be decommissioned.
 - (2) A complaint resolution process to address complaints from nearby residents.
 - (3) A transportation plan describing routes to be used in delivery of project components, equipment and building materials and those to be used to provide access to the site during and after construction. Such plan shall also describe any anticipated improvements to existing roads, bridges or other infrastructure, as well as measures which will be taken to restore damaged/disturbed access routes following construction.
 - (4) A fire protection and emergency response plan to address emergency response and coordinate with local emergency response providers during any construction- or operation-phase emergency, hazard or other event.
 - (5) Predicted wind-turbine-only sound analysis:
 - (a) A sound level analysis shall be prepared to determine predicted sound at off-site property lines and residences from operation of wind turbines. Such analysis shall be referred to as "wind-turbine-only sound." Wind-turbine-only sound shall be predicted based upon appropriate ambient sound levels obtained from field or laboratory measurements of the wind turbine proposed to be installed, as well as appropriate background sound levels of the site and nearby off-site areas.
 - (b) Except as otherwise provided herein, wind turbines shall be located so that predicted wind-turbine-only sound at ground level property lines shall not exceed 8 dB(A) above the ambient noise level established under this section and wind-turbine-only sound at residences shall not exceed 4dB(A) above such ambient noise level. In the event the wind-turbine-only sound produces a "pure tone" condition (existing when an octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels at ground level), such wind-turbine-only sound shall not exceed by 3 dB(A) above the ambient sound level at the property line.
 - (c) Statement of existing and future projected noise measurements.
 - [1] The applicant shall provide a statement listing the existing and maximum future projected measurements of noise from the proposed wind energy conversion facility, measured in decibels Ldn (logarithmic scale, accounting for greater sensitivity at night), for the following:
 - [a] Existing, or ambient: the measurements of existing noise.
 - [b] Existing plus the proposed wind energy conversion facility: maximum estimate of noise from the proposed facility plus the existing noise environment.
 - [2] Such statement shall be certified and signed by a qualified engineer, stating that noise measurements are accurate and meet the noise standards of this section and applicable state requirements.
 - (6) A postconstruction noise monitoring plan shall be developed which, at a minimum, requires annual certification by a qualified engineer of the permittee or applicant that the wind energy facility remains in conformance with the requirements of this section. If no complaints regarding noise are received in a five-year period from operation, the applicant may request that the annual certification be suspended.
- K. Environmental review.
 - (1) Compliance with the State Environmental Quality Review Act (SEQRA) shall be required.
 - (2) Applicants shall submit the following materials to the Town of Greenfield Planning Board:

- (a) Small wind energy facilities and wind measurement towers: Applicants shall be required to prepare and submit Part 1 of a State Environmental Quality Review Act (SEQRA) form.
- (b) Wind energy facilities: Applicants shall be required to prepare and submit a full State Environmental Quality Review Act (SEQRA) form which, unless a lead agency other than the Planning Board has already been established in accordance with the requirements of the State Environmental Quality Review Act, shall be distributed by the Planning Board to all involved agencies prior to any determination of significance by the lead agency. All environmental impact statements for wind energy facilities shall contain, but not be limited to:

[1] Visual impact analysis, including:

- [a] Mapping of scenic resources of statewide significance, as defined by the New York State Department of Environmental Conservation Visual Policy (Policy DEP-00-2), and of local significance, as officially listed by the relevant municipality within the study area.
 - [b] Viewshed mapping and/or cross-section analysis to identify areas (including the significant resources identified above) with potential views of the project.
 - [c] Description of the character and quality of the affected landscape.
 - [d] Photographic simulations of what the proposed project will look like from a reasonable number of representative viewpoints within the five-mile radius study area to be selected in consultation with the Planning Board.
 - [e] Evaluation of the project's visual impact based on the viewshed mapping and photographic simulations described above.
 - [f] Recommended visual mitigation measures (in accordance with DEC Policy DEP-00-2), if warranted, based on the results of the impact evaluation described above.
- [2] Avian impact study: Appropriate bird and bat migration, nesting and habitat studies shall be submitted. 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.
 - [3] Archaeological and architectural impact analysis: The applicant shall solicit input from the New York State Historic Preservation Office, Town of Greenfield Historical Society and/or the Town Historian.
 - [4] Fiscal and economic impact analysis.
 - [5] An assessment of potential electromagnetic interference with microwave, radio, television, personal communication systems, 911 and other wireless communication.
 - [6] An assessment of potentially impacted wetland, surface and groundwater resources, and the geology and land use of the site, as well as an assessment of construction-phase impacts, traffic impacts and adverse sound impacts which may arise from project construction or operation.
 - [7] An assessment of potential shadow flicker at off-site residences.

L. Application review process.

- (1) Twelve copies of the application shall be submitted to the Town Building Department or other Town designee. Payment of all application fees shall be made at the time of submission.
- (2) The Planning Board shall hold at least one public hearing on the application. Notice shall be published in the Town's official newspaper not less than 10 days before any hearing, but, where any hearing is adjourned by the Planning Board to hear additional comments, no further publication shall be required. The public hearing may be combined with public hearings on any environmental impact statement or requested waivers. All adjoining property owners within 1,500 feet of the outer boundary of the site shall be given written notice of a public hearing via certified mail at the expense of the applicant.
- (3) Notice of the project shall also be given in accordance with General Municipal Law.
- (4) Following the holding of the public hearing and completion of the State Environmental Quality Review Act (SEQRA) process, the Planning Board may approve, approve with conditions, or deny the permit application, in accordance with the

standards in this section. All approvals and denials shall be in writing, setting forth competent reasons for such approval or denial.

- (5) A copy of the applicant lease agreement (if one exists) shall be provided to the Planning Board at the start of the review process.

M. Wind energy facility development standards. The following standards shall apply to wind energy facilities only.

- (1) Unless an environmental constraint prohibits burial, all power transmission lines from the tower to any building, substation, or other structure shall be located underground in accordance with National Electrical Code standards, unless an environmental constraint requires such transmission lines to be located above ground.
- (2) Wind turbines and towers must be white in color.
- (3) No advertising signs are allowed on any part of the wind energy facility, including fencing and support structures.
- (4) No tower shall be lit except to comply with Federal Aviation Administration (FAA) requirements. Minimum security lighting for ground-level facilities shall be allowed as approved on the wind energy facility development plan.
- (5) The wind energy facility shall be designed to minimize the impacts of land clearing and the loss of important open spaces. Development on agricultural lands shall follow the Guidelines for Agricultural Mitigation for Wind Power Projects published by the New York State Department of Agriculture and Markets.
- (6) Stormwater runoff and erosion control shall be managed in a manner consistent with all applicable local, state and federal laws and regulations and such standards as shall be applied by the Planning Board on the advice of the Town consultants.
- (7) Wind turbines shall be located in a manner that minimizes shadow flicker on residences.
- (8) No large scale herbicides or insecticides application shall be used on or off site during or following construction.

N. Setbacks, noise and height limits.

- (1) Except as provided herein, each wind turbine associated with a wind energy facility shall be set back as follows:
 - (a) A distance no less than 1,000 feet from residences.
 - (b) A distance no less than 300 feet from off-site property boundaries.
 - (c) A distance no less than 300 feet from the center line of any public road.
- (2) Small wind energy facility wind turbines and wind measurement towers shall be set back from off-site property boundaries and residences at least a distance equal to the total tower height.
- (3) Except as provided herein, the sound pressure level generated by a wind energy facility or small wind energy facility shall not exceed the sound levels required and established in accordance with Subsection J(5)(c)[1] of this section. Compliance shall periodically be determined by the Town Code Enforcement Officer, or such other officer or employee which the Town Board may designate. This shall be the only project operation phase noise requirement applicable to a project under this section, except that the Planning Board may impose appropriate additional requirements in accordance with Subsection Q of this section.
- (4) There is no total height restriction for a wind energy facility and a small wind energy facility, and a wind measurement tower is restricted to 100 feet total height (blades included). (A non-grid-only wind energy facility shall not exceed 35 feet.)
- (5) Prior to issuance of a building permit for a small wind energy facility, wind measurement tower, or wind energy facility, the applicant shall provide the Town proof of initial and annual insurance, in the form of a duplicate insurance policy or a certificate issued by an insurance company, of liability insurance, of a level to be determined by the Town Board in consultation with the Town's insurer, to cover damage or injury which might be caused by or result from the operation or maintenance of such wind energy facility.

O. Required site safety measures for wind energy facilities, small wind energy facilities, and wind measurement towers.

- (1) All wind turbines shall have an automatic braking, governing or feathering system to prevent uncontrolled rotation, overspeeding and excessive pressure on the tower structure, rotor blades and turbine components.

- (2) With the exception of electrical collection and distribution lines, accessory facilities or equipment shall be gated, fenced or secured appropriately to prevent unrestricted public access to the facilities.
- (3) Warning signs shall be posted at the entrances to the wind energy facility and at the base of each tower warning of electrical shock or high voltage and containing emergency contact information.
- (4) The minimum distance between the ground and any part of the rotor or blade system shall be 30 feet for any wind turbine associated with a wind energy facility, and 15 feet for any wind turbine associated with a small wind energy facility.
- (5) Wind energy facilities shall be designed to prevent unauthorized external access to electrical and mechanical components and shall have access doors that are kept securely locked at all times.
- (6) Prior to issuance of a building permit for wind energy facilities only, the applicant shall provide the Town proof of initial and annual insurance, in the form of a duplicate insurance policy or a certificate issued by an insurance company, of liability insurance, of a level to be determined by the Town Board in consultation with the Town's insurer, to cover damage or injury which might be caused by or result from the operation or maintenance of such wind energy facility.

P. Traffic routes and road maintenance for wind energy facilities. The provisions of this section shall apply to wind energy facilities only.

- (1) Designated traffic routes for construction and delivery vehicles to minimize traffic impacts, wear and tear on local roads and impacts on local business operations shall be proposed by the applicant and reviewed by the Planning Board.
- (2) To the extent the designated traffic routes will include use of Town, county, or state roads, the applicant is responsible for executing a road use agreement with the appropriate agency which shall provide for the remediation of damaged roads upon completion of the installation or maintenance of a wind energy facility, and for adequate maintenance of the roads during construction of the wind energy facility such that the roads will remain open and passable. Prior to the issuance of any building permit, the cost of remediating road damage shall be secured in the form of a bond, letter of credit or other surety acceptable to the appropriate agency and sufficient to compensate the agency for any damage to public roads.
- (3) The applicant shall provide predevelopment and postdevelopment photographic evidence of the condition of Town, county, or state roads to be traveled upon by construction and delivery vehicles.

Q. Issuance of wind energy facility, small wind energy facility and wind measurement tower permits and certificates of conformity.

- (1) The Planning Board shall, within 180 days of either issuing State Environmental Quality Review Act (SEQRA)^[1] findings or a SEQRA negative declaration or conditioned negative declaration, issue a written decision with the reasons for approval, conditions of approval or disapproval fully stated. This time period may be extended with consent of the applicant.

[1] *Editor's Note: See Environmental Conservation Law § 8-0101 et seq.*

- (2) The Planning Board is hereby expressly empowered to impose conditions governing the issuance of the permit as well as construction and operational phases of the project which it deems necessary and appropriate to ensure compliance with this section, the State Environmental Quality Review Act, conformity of project construction and operation with representations made by the applicant during the application review process, as well as with any determinations or findings issued by the Planning Board or any other involved agency under the State Environmental Quality Review Act, compliance with any other federal, state or local laws or regulations applicable to the project, and as may be necessary to promote the public health, safety and welfare.
- (3) If approved, the Planning Board shall direct the Town Building Department or other designee authorized by the Town Board to issue a permit upon satisfaction of any and all conditions precedent set forth under this section, the terms of approval or conditions of the permit or any additional requirement of the Town Board imposed in connection with any other project approval or agreement deemed necessary to the issuance of the permit.
- (4) The decision of the Planning Board shall be filed within five days in the office of the Town Clerk and a copy mailed to the applicant by first-class mail.
- (5) If any approved wind energy facility, small wind energy facility or wind measurement tower is not substantially commenced within one year of issuance of the permit, the permit shall expire unless the Planning Board shall have granted an extension.
- (6) Upon commissioning of the project, which for purposes of wind energy facilities and small wind energy facilities shall mean the conversion of wind energy to electrical energy for on-site use or distribution to the electrical grid, and for purposes of

wind measurement towers shall mean the collection of wind speed and/or other data by the wind measurement tower equipment, the Town Building Department or other designee authorized by the Town Board shall determine whether the project is in compliance with the permit. If the Town Building Department or other designee determines the project is in compliance with the permit, a certificate of conformity shall be promptly issued to the permittee.

- (7) With the change of ownership of the structure the new owner shall comply with all environmental, site plan review or special use permit requirements.

R. Abatement.

- (1) If any wind turbine stops converting wind energy into electrical energy and/or distribution of that energy for on-site use or transmission onto the electrical grid for a continuous period of 12 months, the applicant/permittee shall remove said system at its own expense following, if applicable, the requirements of the decommissioning plan required under this section or any permit. The Town Board may grant an extension to this time period for one year or less.
- (2) At such time that a wind energy conversion facility is scheduled to be abandoned or discontinued, the applicant will notify the Town by certified U.S. mail of the proposed date of abandonment or discontinuation of operations. Such notice shall be given not less than 30 days prior to abandonment or discontinuation of operations. In the event that an applicant fails to give such notice, the facility shall be considered abandoned upon such discontinuation of operations.
- (3) Upon abandonment or discontinuation of use, the carrier shall physically remove the wind energy conversion facility within 90 days from the date of abandonment or discontinuation of use. "Physically remove" shall include, but not be limited to:
 - (a) Removal of all machinery, equipment, equipment shelters, and security barriers from the subject property.
 - (b) Proper disposal of the waste materials (including hazardous liquids) from the site in accordance with local and state solid waste disposal regulations.
 - (c) Restoring the location of the wind energy conversion facility to its natural condition, except that any landscaping, grading or below-grade foundation shall remain in the after condition.
- (4) If an applicant fails to remove a wind energy conversion facility in accordance with this section, the Town shall have the authority to enter the subject property and physically remove the facility. Cost incurred by the Town shall be paid by the applicant. The Town reserves the right to recover said cost by any legal means available.
- (5) For a wind energy facility only, the Town Board shall require the applicant to post a bond at the time of construction to cover costs of the removal in the event the Town must remove the facility. The amount of such bond shall be reviewed and approved by the Town Board under the approved decommissioning plan.

S. Permit revocation. All wind energy facilities, small wind energy facilities and wind measurement towers shall be maintained in operational condition at all times, subject to reasonable maintenance and repair outages. "Operational condition" includes meeting all noise requirements and other permit conditions. Should a wind turbine or wind measurement tower become inoperable, or any part of a wind energy facility or small wind energy facility be damaged, or should a violation of a permit condition occur, the permittee, owner or operator shall remedy the failure within 90 days. Upon a failure to perfect a timely remedy, project operation shall cease. Application of this subsection of the section shall in no way extend or toll any time periods set forth under Subsection **R** of this section.

T. Fees. The applicant shall pay for reasonable attorneys' and engineering fees associated with this application as per Chapter **A210**, Fee Schedule.

U. Enforcement; penalties for offenses.

- (1) **Enforcement Officer.** The Town of Greenfield Town Code Enforcement Officer shall be considered the Enforcement Officer for purposes of this section.
- (2) **Penalties.** Any person owning, controlling, operating or managing a wind energy facility, small wind energy facility or wind measurement tower in violation of this section or in noncompliance with the terms and conditions of any permit issued pursuant to this section, or any order of the enforcement officer, and any person who shall assist in so doing, shall be guilty of a violation of this section and subject to a fine of not more than \$1,000 per day per violation.
- (3) **Special proceeding.** The designated enforcement officer may, with the consent of the Town Board, institute an action or proceeding available at law to prevent, correct or abate any unlawful construction, erection, structural alteration,

reconstruction, modification and/or use of a wind energy facility, small wind energy facility or wind measurement tower in the Town. This shall be in addition to other remedies and penalties herein provided or available at law.

- V. Exemption from above for a non-grid-use-only wind energy facility. A wind energy conversion system consisting of a wind turbine (or mill), a tower, and associated control electronics, electrical collection and distribution equipment or mechanical windmill components, and accessory facilities or equipment, which is less than 35 feet in total height with the minimum distance between the ground and any part of the rotor or blade system not less than 15 feet and is not connected to the power grid, shall be exempt from this section and shall require only a regular building permit and fee from the Town Building Department, provided the following conditions have been met:

- (1) A completed application for a permit on a form provided by the Town Building Department.
- (2) A site plan map showing property lines and physical dimensions of the site, including location, approximate dimensions and types of existing structures and uses on the site; public roads; and adjoining properties within 300 feet of the boundaries of any proposed wind turbine or windmill. The site plan shall show the location of each proposed wind turbine or windmill and the locations of setback distances. Setback from property lines shall equal no less than total tower height.
 - (a) If guy wires are to be used, the location and type of fencing used to enclose them shall be shown on the site plan.
 - (b) Such other information as may be required by the Town Building Department.
- (3) Professional engineer stamped plans are required.

§ 105-134 (Reserved)

