Chapter 208

WIND ENERGY CONSERVATION SYSTEMS

[HISTORY: Adopted by the Board of Trustees of the Village of Alden 2-9-2012 as L.L. No. 5-2012. Subsequent amendments noted where applicable.]

GENERAL REFERENCES

Fees -- See Ch. A220.

§ 208-1. Title.

This chapter shall be known as the "Wind Energy Conservation Systems Law of the Village of Alden, New York."

§ 208-2. Purpose.

The purpose of this local law for wind energy conversion systems (WECS) is to ensure that the development of these facilities will have a minimal impact on adjacent properties and to protect the health, safety and welfare of residents of the Village. The Village of Alden recognizes that wind energy is an abundant, renewable and nonpolluting energy resource of the Village and that its conversion to electricity will reduce dependence on nonrenewable energy resources and decrease air and water pollution that results from the use of conventional energy sources.

§ 208-3. Definitions.

A. As used in this chapter, the following terms shall have the meanings indicated:

HEIGHT -- When referring to a tower or other structure, the height shall be measured from existing or natural grade, whichever is lower, to the highest point on the tower or other structure, including the base pad and any antenna. The height of a WECS shall be measured from such grade to the apex of the blade in the vertical position.

SITE -- The physical location of a WECS, including the related tower and transmission equipment.

SMALL-SCALE (NONCOMMERCIAL) WIND ENERGY CONVERSION SYSTEM -- A wind energy conversion system consisting of one wind turbine 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 which a small-scale WECS is installed also receives electrical power supplied by a utility company, excess electrical power generated by the small-scale WECS, and not presently needed for on-site use, may be used by the utility company in exchange for a reduction in the cost of electrical power supplied by that company to the parcel for on-site use, as long as no net revenue is produced by such excess electrical power.

SWEPT AREA -- The largest area of the WECS which extracts energy from the wind stream. In a conventional propeller-type WECS, there is a direct relationship between swept area and the rotor diameter.

TOWER -- The support structure, including guyed, monopole and lattice types, upon which a wind turbine or other mechanical device is mounted.

TOWER HEIGHT -- The height above grade of the uppermost fixed portion of the tower, excluding the length of any axial rotating turbine blades.

UTILITY-SCALE (COMMERCIAL) WIND ENERGY CONVERSION SYSTEM -- A wind energy conversion system that is intended solely to generate electrical power for sale to the power grid.

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 components used in the system. A WECS may be either a utility-scale wind energy conversion system or a small-scale wind energy conversion system.

WIND ENERGY FACILITY -- Any wind energy conversion system or wind measurement tower, including related infrastructure, electrical lines and substations, access roads and accessory structures.

WIND ENERGY SYSTEM -- The equipment that converts and then stores or transfers energy from the wind into usable forms of energy and includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, turbine, vane, wire, substation, maintenance or control facilities or other component used in the system.

WIND MEASUREMENT TOWER -- A tower used for the measurement of meteorological data such as temperature, wind speed and wind direction.

§ 208-4. Land use tables.

Land use tables referenced herein shall pertain to utility-scale wind energy conversion systems in the Industrial District requiring a special use permit.

§ 208-5. Height regulations.

Height shall be in compliance with all fall zone limitations set forth in Chapter 193, Telecommunications.

§ 208-6. Application process for utility-scale systems.

A. Prior to construction of any utility-scale WECS, the project proponent shall first obtain site plan approval from the Village of Alden Planning Board, a building permit from the Building Inspector and a special use permit from the Board of Trustees. A detailed host agreement must also be submitted.

B. Initial application materials. All applications for a utility-scale WECS shall include the following information:

(1) Name and address of the applicant.

(2) Evidence that the applicant is the owner of the property or has the written permission of the owner to make such an application.

(3) A site plan drawn in sufficient detail to show the following:

(a) Location of the tower(s) on the site and the tower height, including blades, rotor diameter and ground clearance.

(b) Utility lines, both aboveground and below-ground, within a radius equal to the proposed tower height, including the blades. Utility lines currently in place must be shown in the site plan.

(c) Property lot lines and the location and dimensions of all existing structures and uses on the site within 1,000 feet of the wind energy conversion systems.

(d) Surrounding land uses and all off-site structures within 1,000 feet, or 2.25 times the tower height, whichever is greater, of the wind energy conversion systems.

(e) Description of the various structural components of the tower construction, including the base and footing.

(f) Existing topography.

(g) Proposed plan for grading and removal of natural vegetation.

(h) Name, address and policy number of any insurance covering such structure;

(i) Name and address of any bonding company insuring the removal of such structure in the event of abandonment.

(4) A utility-scale WECS shall be treated as a Type I action under the State Environmental Quality Review Act and shall require the use of a full environmental assessment form.

(5) Notification of application for WECS to neighbors residing within 1,000 feet of the proposed location. Such notification must be made by certified mail, return receipt requested or hand delivered with the signature of the resident.

(6) Such additional information as may be reasonably required by the Village Engineer, Village Board and Planning Board for an adequate assessment of the proposed project.

C. Studies and information required prior to decision on the application.

(1) After a review of the environmental assessment form and the proposed project, the Village Board, upon the recommendation from the Planning Board, shall provide direction to the applicant on the methodology and parameters of the studies to be provided below:

(a) Proposed plan for site restoration after construction, prepared according to New York State Department of Agriculture and Markets and New York State Department of Environmental Conservation guidelines.

(b) Plan for ingress and egress to the proposed project site, including:

[1] A description of the access route from the nearest state-, county- and/or Village-maintained roads.

[2] Road surface material, stating the type and amount of

surface cover.

[3] Width of a minimum of 30 feet and length of access route.

[4] Dust control procedures during construction and transportation.

[5] A road maintenance schedule or program.

(c) Detailed construction plan, including but not limited to a construction schedule, hours of operation, a designation of heavy haul routes, a list of material equipment and loads to be transported; identification of temporary facilities intended to be constructed and a contact representative in the field with a name and phone number.

(d) Erosion and sediment control plan. [A stormwater pollution prevention plan (SWPPP) will meet this requirement.]

(e) Specific information on the type, size, height, rotor material, rated power output, performance, safety and noise characteristics of each utility-scale wind turbine model, each tower and electrical transmission equipment.

(f) Photographs and detailed drawings of each wind turbine model, including the tower and foundation.

(g) Visual assessment, including a detailed or photographic simulation showing the site fully developed with all proposed wind turbines and accessory structures. The Village Board, with recommendation from the Planning Board shall determine which viewpoints the visual assessment shall include.

(h) Noise analysis. A noise analysis shall be furnished, which shall include the following:

[1] A description and map 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.

[2] A description and map of the noise-sensitive environment, including any sensitive noise receptors, i.e., residences, hospitals, libraries, schools, places of worship and similar facilities, within 1,000 feet, or 2.25 times the height, of the proposed facilities.

[3] A survey and report prepared by a qualified professional that analyzes the preexisting ambient sound level (including seasonal variation), including but not limited to separate measurements of low frequency and A-weighted noise levels across a range of wind speeds (including near cut-in), turbulence measurements, distance from the turbines, location of sensitive receptors relative to wind direction and analyses at affected sensitive noise receptors located within 1,500 feet of the turbine, as identified by the Village Board, with recommendation from the Planning Board.

[4] A description and map showing the potential noise impacts, including estimates of expected noise impacts from both construction and operation and estimates of expected noise levels at sensitive receptor locations.

[5] A description of the project's proposed noise-control features, including specific measures proposed to protect workers and specific measures proposed to mitigate noise impacts for sensitive receptors, consistent with the requirements of this chapter.

[6] Manufacturers' noise-design and field-testing data, both audible [dB(A)], and low frequency (deep bass vibration), for all proposed structures.

(i) A geotechnical report shall be furnished which shall, at a minimum, include the following:

[1] Soil and geologic characteristics of the site, based on on-site sampling and testing, to provide an assessment of the soil suitability for construction of the proposed WECS.

[2] Foundation design criteria for all proposed structures.

[3] Slope stability analysis.

[4] Grading criteria for ground preparation, cuts and fills and soil compaction.

(j) Engineer's report.

[1] Engineer's report, prepared by a professional engineer licensed in New York State, which provides information regarding the following potential risks:

[a] Ice-throw calculations: a report that calculates the maximum distance that ice from the turbine blades could be thrown and the potential risk assessment for inhabitants and structures. The basis of the calculation and all assumptions must be disclosed.

[b] Blade-throw calculations: a report that calculates the maximum distance that pieces of the turbine blades could be thrown and the potential risk assessment for inhabitants and structures. The basis of the calculation and all assumptions must be disclosed.

[c] Catastrophic tower failure: A report from the turbine manufacturer stating the wind speed and conditions that the turbine is designed to withstand and the potential risk assessment for inhabitants and structures, including all assumptions.

[d] Certification by a registered New York State professional engineer that the tower's design is sufficient to withstand wind-loading requirements for structures or as established by the New York State Building Code.

[2] The results of the engineer's report shall be used to

determine the adequacy of setbacks from the property line to mitigate any effects from potential ice throw, tower failure, or blade throw.

(k) Lighting plan. The applicant shall submit a lighting plan that describes all lighting that will be required, including any lighting that may be required by the FAA. Such plan shall include, but is not limited to, the planned number and location of lights, light color, whether any such lights will be flashing and mitigation measures planned to control the light so that it does not spill over onto neighboring properties.

(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 WECS 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 the New York State Department of Conservation or another agency acceptable to the Village Board, with recommendation from the Planning Board.

(n) Decommissioning and site restoration plan and decommissioning bond plan.

(o) FAA notification: a copy of written notification to the Federal Aviation Administration.

(p) Utility notification: utility interconnection data and a copy of a written notification to the utility of the proposed interconnection.

(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 Village Engineer, Village Board

and Planning Board for an adequate assessment of the proposed project.

(2) The Village Board, with recommendation from the Planning Board may determine that not all of these application materials are necessary for a particular proposed project.

D. State environmental quality review (SEQR). Pursuant to Section 617.13 of New York State Environmental Quality Review Regulations, the Village 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 Village will charge the applicant for the cost of such consultant to the extent allowed herein.

§ 208-7. Criteria for approval of utility-scale systems.

A. The Village Board, with recommendation from the Planning Board, shall use the following criteria to evaluate all utility-scale wind energy conversion systems:

(1) Setbacks. All utility-scale WECS shall comply with the following setbacks:

(a) All wind turbines and towers shall be set back from property lines a minimum of 1.5 times the height of the structure, including to the tip of the blade, excluding adjoining lot lines where both lots are part of the proposed project.

(b) All wind turbines and towers shall be set back a minimum of 1,500 feet from the boundaries of any R-1 and/or R-2 Zoning District.

(c) All wind turbines and towers shall be set back a minimum of 1,000 feet, or 2.25 times the tower height, whichever is greater, from any residence that exists at the time that an application for a WECS is made to the Village. For purposes of this subsection, a residence shall be considered to be in existence if a building permit for such structure has been issued by the Building Inspector, even if construction is not yet completed and the residence is not yet occupied.

(d) All wind turbines and towers shall be set back from all structures and buildings, other than residences, that are in existence at the time of the application, or for which a building permit has been issued, a minimum of 1.5 times the height of the tower, including

to the tip of the blade. The Village Board, with recommendation from the Planning Board, may, at its discretion, exempt minor structures such as walls, fences, toolsheds and similar minor structures from this setback requirement.

(e) All wind turbines and towers shall be set back from any public road right-of-way a minimum of 1.5 times the height of the structure, including to the tip of the blade.

(2) Noise. A utility-scale WECS shall not be approved unless the applicant demonstrates that the proposed project complies with the following noise requirements. In order to enable the Village Board, with recommendation from the Planning Board, to make this determination, the applicant shall submit the noise assessment required in Section 5(C)(1)(h).

(a) Audible noise standards.

[1] Audible noise due to wind turbine operations shall not exceed 45 dB(A) for more than five minutes out of any one-hour time period or exceed 50 dB(A) for any time period at the boundary of the proposed project site.

[2] The sound level from the operation of a utility-scale WECS shall not increase, by more than three dB(A), the nighttime or daytime ambient sound level at any sensitive noise receptors, i.e., residences, hospitals, libraries, schools, places of worship and similar facilities, within 1,500 feet of the turbine and/or at other sensitive receptor points that may be identified by the Village Board with recommendation from the Planning Board.

(b) Low-frequency noise. A utility-scale 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 Village Board, with recommendation from 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 operational 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 this noise study, the Village Board, with recommendation from the Planning Board, may require periodic additional noise studies.

(3) Noise and setback easements. In the event that a utility-scale WECS does not meet a setback requirement or exceeds the noise criteria of this chapter, the Village Board, with written recommendation from the Planning Board, may grant a waiver of the setback and/or noise criteria, subject to the following requirements:

(a) Each application shall be accompanied by proof of service of notice of the requested permit and waiver upon all the landowners immediately adjacent to the subject premises, extending 500 feet therefrom in all directions, stating that the noise and/or setback limitations contained in Chapter 210, Zoning, of the Code of the Village, may exceed the maximum limits otherwise allowed.

(b) In the form required for an easement, the waiver in regard to the setback shall be recorded in the Erie County Clerk's Office describing the benefitted and burdened properties in order to advise subsequent owners of the burdened properties of such waiver. Such easement shall be permanent and may not be amended or revoked without the consent of the Village Board, with the recommendation from the Planning Board, which waiver and consent shall be granted upon either the completion of the decommissioning of the benefitted WECS in accordance with this chapter or the acquisition of the burdened parcel by the owner of the benefitted parcel or the WECS.

(4) Interference with television, microwave and radio reception. The applicant must submit information that the proposed construction of the utility-scale WECS will not cause interference with microwave transmissions, cellular transmissions, residential television 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.

(5) Interference with aviation navigational systems.

(a) The applicant shall provide documentation that the proposed WECS will not cause interference with the operation of any

aviation facility.

(b) The applicant shall provide documentation that the proposed WECS complies with all Federal Aviation Administration (FAA) regulations.

(c) Locking mechanisms to limit radar interference required. All utility-scale WECS shall include a locking mechanism which prevents the blades from rotating when not producing power, in order to limit airport radar interference. This provision does not apply while the WECS is free-wheeling during start-up and shutdown. The Village Board, with recommendation from the Planning Board, may modify or eliminate the requirement for a locking mechanism if sufficient evidence is presented that no significant airport radar interference will be caused by the utility-scale WECS.

(6) Safety and security requirements.

(a) Safety shutdown. Each wind turbine 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 wind turbine shall be permitted that 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.

(b) Grounding. All structures shall be grounded according to applicable electrical codes.

(c) Wiring. All wiring between the wind turbines and the wind energy facility substation shall be placed underground unless the Village Board, with recommendation from the Planning Board, determines that this is not prudent or practicable due to site-specific constraints. The applicant is required to provide a site plan showing the locations of all overhead and underground electric utility lines, including substations for the project.

(d) Ground clearance. The blade tip of any wind turbine shall, at its lowest point, have ground clearance of not less than 30 feet.

(e) Climbability. Wind turbine towers shall not be climbable up to 25

feet above ground level.

(f) Access doors locked. All access doors to wind turbine towers and electrical equipment shall be lockable and shall remain locked at all times when operator personnel are not present.

(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 of the owner of the wind turbine in accordance with local, state and federal codes.

(7) Ice throw. The Village Board, with recommendation from 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 utility-scale 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 as identified in the Village of Alden Master 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 Village Board with recommendation from the Planning Board during SEQRA review. The impact of a utility-scale WECS on migratory birds and bats shall be evaluated and mitigated based on

SEQRA findings.

(10) Visual impact.

(a) No advertising sign or logo shall be placed or painted on any part of any utility-scale WECS.

(b) Wind turbines shall be painted an unobtrusive (e.g., such as white, gray or beige) color that is nonreflective. In order to reduce any daytime lighting requirements by the FAA, the Village Board, with recommendation from 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 Village Board with recommendation from the Planning Board, no lighting shall be installed on the WECS turbine or tower except for ground-level security lighting.

(11) Shadow flicker. The WECS shall be designed such that the project shall minimize shadow flicker onto adjacent existing residences. Mitigation measures, which may include landscaping, shall be incorporated into any special use permit approval. The required shadow flicker study shall identify areas where shadow flicker may interfere with residences and describe measures that shall be taken to eliminate or minimize the problem.

§ 208-8. Decommissioning and site restoration plan; bond required.

A. The applicant shall submit a decommissioning and site restoration plan, including cost estimate, to the Village Board, with recommendation from the Planning Board, for its review and approval prior to the approval of any special use permit. The restoration plan shall identify the specific properties it applies to and shall indicate removal of all buildings, structures, wind turbines, access roads and/or driveways and foundations to 3.5 feet below finish grade; road repair costs, if any; and all regrading and revegetation necessary to return the subject property to the condition existing prior to establishment of the utility-scale WECS. The restoration shall reflect the site-specific character, including topography, vegetation, drainage and any unique environmental features. The plan shall

include a certified estimate of the total cost (by element) of implementing the removal and site restoration plan. The decommissioning plan shall include information regarding the anticipated life of the project. Any variation from the submitted decommissioning plan must be approved by the Village Board, with recommendation from the Planning Board.

B. As a condition of special use permit approval, the Village Board, with recommendation from the Planning Board, shall require the project sponsor to execute and file with the Village Clerk a bond, or other form of security acceptable to the Village Board and Village Attorney as to the form, content and manner of execution, in an amount sufficient to ensure the faithful performance of the removal of the tower, wind turbine and other components of the WECS and the restoration of the site subsequent to such removal, in accordance with the approved decommissioning and site restoration plan.

C. The sufficiency of such bond shall be confirmed at least every five years by an analysis and report of the cost of removal and site restoration, such report to be prepared by a New York State licensed engineer. The project sponsor/operator shall pay the cost of such report. If said analysis and report determines that the amount of the bond in force is insufficient to cover the removal, disposal and site restoration costs, the bond shall be increased to the amount necessary to cover such costs within 10 days of the applicant's receipt of such report. The report and increased amount of the bond shall be filed with the Village Clerk.

D. All bond requirements shall be fully funded before a building permit is issued.

E. The decommissioning and site restoration bond shall be in effect for the entire duration of the special use permit.

F. The applicant and his/her successors or assigns in interest shall maintain the required bond funds for the duration of the special use permit.

§ 208-9. Effect on local roads; bond requirements.

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§ 208-10. Certifications required.

The applicant shall provide the following certifications:

A. 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 has been adopted in New York State. This shall be provided prior to the issuance of the special use permit.

B. Certification post-construction. After completion of construction of the WECS, the applicant shall provide post-construction certification from a licensed professional engineer registered in New York State 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 Building Inspector and Village Engineer and shall be maintained in a permanent file.

C. Certification of electrical system. The electrical system shall be certified in writing by an electrical engineer registered in New York. The engineer shall certify compliance with good engineering practices and with the appropriate provisions of the electric code that has been adopted by New York State. This shall be provided prior to the issuance of the special use permit.

D. Certification of rotor overspeed control. The rotor overspeed control system shall be certified in writing by a mechanical engineer registered in New York State. The engineer shall certify compliance with good engineering practices. This shall be provided prior to the issuance of the special use permit.

E. Certification of seismic design. The applicant shall provide post-construction certification from a licensed professional engineer registered in New York State that the design and construction protects against anticipated seismic hazards.

§ 208-11. Liability insurance requirements.

A. Prior to the issuance of a building permit, the project sponsor shall provide proof, in the form of a duplicate insurance policy or a certificate issued by an insurance company, that liability insurance has been obtained to cover damage or injury which might result from failure of the tower, turbine or other component of the WECS. Such policy shall provide coverage of not less than $3,000,000 and shall name the Village of Alden as co-insured. The sponsor shall provide the Village annually with proof of continuing coverage in compliance with this requirement.

B. Liability insurance shall be carried for the life of the project through decommissioning. Proof of liability insurance shall be filed annually with the Village Clerk. Such policy shall provide coverage of not less than $3,000,000 and shall name the Village of Alden as co-insured. The sponsor shall provide the Village annually with proof of continuing coverage in compliance with this requirement.

§ 208-12. Transfer of ownership.

A. If the ownership of the WECS facility changes, the new owner shall present proof to the Village Clerk that all the required bonds and insurance policies remain in full force and effect. The new owner shall provide a written statement that he/she is aware of the conditions and requirements of the special use permit which continue to govern the operation of the facility.

B. In order to ensure compliance with this provision, the person/company to whom the special use permit is originally issued, and subsequent owners, shall provide notification to the Village Clerk 90 days prior to the change of ownership.

§ 208-13. Inspections; reports; fees.

A. Unless waived by the Village Board, with recommendation from the Planning Board, wind turbines or towers over 150 feet in height shall be inspected by a New York State licensed professional engineer, who has been approved by the Village, annually or at any other time upon a determination by the Village's Building Inspector and Village Engineer that the wind turbine, tower or pole may have sustained structural damage.

B. A copy of the inspection report shall be submitted to the Village's Building Inspector.

C. Any fee or expense associated with this inspection shall be borne entirely by the permit holder.

§ 208-14. Maintenance of system; permit revocation.

A. 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 chapter and other permit conditions.

B. 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 chapter, the owner/operator shall remedy the situation within 90 days after written notice from the Code Enforcement Officer. The Code Enforcement Officer or Village Board may extend this period by another ninety-day period for a total period not to exceed 180 days.

C. Upon notice from the Code Enforcement Officer or Village Board that the WECS is not repaired or made operational or brought into permit compliance after said

notice pursuant to Section 13(B) above, the Village Board shall hold a public hearing at which both the public and the owner/operator 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 Village Board may either:

(1) Order compliance within a stated timeframe; or

(2) 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.

§ 208-15. Decommissioning; bond use.

A. Nonfunctional and/or inoperative WECS defined.

(1) If any utility-scale WECS remains nonfunctional or inoperative for a continuous period of one 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 utility-scale WECS shall be deemed nonfunctional and/or inoperative if it has not generated power within the preceding twelve months.

(2) The Code Enforcement Officer requires that the applicant quarterly submit documentation reporting the power output generated by each WECS.

B. Use of decommissioning bond.

(1) Any nonfunctional 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 nonfunctional or inoperative, as defined above, or of the revocation of the special use permit.

(2) If removal of the WECS is required and the applicant, permittee or successor fails to remove the WECS and restore the site in accordance with the approved decommissioning and site restoration plan, the Village Board may contract for such removal and restoration and pay for the removal and restoration from the posted decommissioning and site restoration bond.

(3) If the bond is not sufficient, the Village shall charge the permit holder for the costs over and above the amount of the bond.

(4) If bond funds are used in reference to Section 14(B), the original bond amount must be restored within 90 days.

§ 208-16. Fees; host community agreements; escrow agreement.

All fees shall be determined by the Village Board. Nothing in this chapter shall be read as limiting the ability of the Village to enter into host community agreements with any applicant to compensate the Village for expenses or impacts on the community. The Village shall require any applicant to enter into an escrow agreement to pay the engineering and legal costs of any application review, including the review required by SEQRA.

§ 208-17. Planning Board action; granting of special use permits.

A. The Planning Board may recommend to the Village Board to grant the special use permit, deny the special use permit or grant the special use permit with written stated conditions. Denial of the special use permit shall be by written decision based upon substantial evidence submitted to the Board. Upon issuance of the special use permit, the applicant shall obtain a building permit for each tower.

B. Prior to issuing a special use permit for a utility-scale WECS, the Planning Board shall make all of the following findings:

(1) The proposed utility-scale WECS project is consistent with the Village of Alden Code.

(2) The proposed utility-scale WECS project will not unreasonably interfere with the orderly land use and development plans of the Village of Alden.

(3) That the benefits to the applicant and the public of the proposed utility-scale WECS project will exceed any burdens to the Village and residents therein.

(4) That the proposed utility-scale WECS project will not be detrimental to the public health, safety or welfare of the community.

(5) That the proposed utility-scale WECS project complies with all required provisions of the Village's Zoning

§ 208-18. WECS changes after special use permit approval; amendment required.

Any changes or alterations to the WECS, after approval of the special use permit and site plan, shall require an amendment to the special use permit. Such amendment shall be subject to all the requirements of this chapter.

§ 208-19. New York State Real Property Tax Law exemption.

The Village of Alden reserves the right, by local law, to provide that no exemption pursuant to the provisions of the New York State Real Property Tax Law (RPTL) § 487 shall be applicable within its jurisdiction.

§ 208-20. Application process for small-scale, non-commercial wind energy conservation systems.

A. Prior to construction of any small-scale WECS, the project proponent shall first obtain site plan approval from the Village of Alden Planning Board, a building permit from the Building Inspector and a special use permit from the Board of Trustees. A detailed host agreement must also be submitted.

B. Initial application materials. All applications for a small-scale WECS shall include the following information:

(1) Name and address of the applicant.

(2) Evidence that the applicant is the owner of the property or has the written permission of the owner to make such an application.

(3) A site plan drawn in sufficient detail to show the following:

(a) Location of the tower(s) on the site and the tower height, including blades, rotor diameter and ground clearance.

(b) Utility lines, both aboveground and below-ground, within a radius equal to the proposed tower height, including the blades. Utility lines currently in place must be shown in the site plan.

(c) Property lot lines and the location and dimensions of all existing structures and uses on the site within 1,000 feet of the wind energy conversion systems.

(d) Surrounding land uses and all off-site structures within 1,000 feet, or 2.25 times the tower height, whichever is greater, of the wind

energy conversion systems.

(e) Description of the various structural components of the tower construction, including the base and footing.

(f) Existing topography.

(g) Proposed plan for grading and removal of natural vegetation.

(h) Name, address and policy number of any insurance covering such structure;

(i) Name and address of any bonding company insuring the removal of such structure in the event of abandonment.

(4) A small-scale WECS shall be treated as a Type I action under the State Environmental Quality Review Act and shall require the use of a full environmental assessment form.

(5) Notification of application for WECS to neighbors residing within 1,000 feet of the proposed location. Such notification must be made by certified mail, return receipt requested or hand delivered with the signature of the resident.

(6) Such additional information as may be reasonably required by the Village Engineer, Village Board and Planning Board for an adequate assessment of the proposed project.

C. Studies and information required prior to decision on the application.

(1) After a review of the environmental assessment form and the proposed project, the Village Board, upon the recommendation from the Planning Board, shall provide direction to the applicant on the methodology and parameters of the studies to be provided below:

(a) Proposed plan for site restoration after construction, prepared according to New York State Department of Agriculture and Markets and New York State Department of Environmental Conservation guidelines.

(b) Specific information on the type, size, height, rotor material, rated power output, performance, safety and noise characteristics of each small-scale wind turbine model, each tower and electrical transmission equipment.

(c) Photographs and detailed drawings of each wind turbine model, including the tower and foundation.

(d) Visual assessment, including a detailed or photographic simulation showing the site fully developed with all proposed wind turbines and accessory structures. The Village Board, with recommendation from the Planning Board shall determine which viewpoints the visual assessment shall include.

(e) Noise analysis. A noise analysis shall be furnished, which shall include the following:

[1] A description and map 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.

[2] A description and map of the noise-sensitive environment, including any sensitive noise receptors, i.e., residences, hospitals, libraries, schools, places of worship and similar facilities, within 1,000 feet, or 2.25 times the height, of the proposed facilities.

[3] A survey and report prepared by a qualified professional that analyzes the preexisting ambient sound level (including seasonal variation), including but not limited to separate measurements of low frequency and A-weighted noise levels across a range of wind speeds (including near cut-in), turbulence measurements, distance from the turbines, location of sensitive receptors relative to wind direction and analyses at affected sensitive noise receptors located within 1,500 feet of the turbine, as identified by the Village Board, with recommendation from the Planning Board.

[4] A description and map showing the potential noise impacts, including estimates of expected noise impacts from both construction and operation and estimates of expected noise levels at sensitive receptor locations.

[5] A description of the project's proposed noise-control features, including specific measures proposed to protect workers and specific measures proposed to mitigate noise

impacts for sensitive receptors, consistent with the requirements of this chapter.

[6] Manufacturers' noise-design and field-testing data, both audible [dB(A)], and low frequency (deep bass vibration), for all proposed structures.

(f) Engineer's report.

[1] Engineer's report, prepared by a professional engineer licensed in New York State, which provides information regarding the following potential risks:

[a] Ice-throw calculations: a report that calculates the maximum distance that ice from the turbine blades could be thrown and the potential risk assessment for inhabitants and structures. The basis of the calculation and all assumptions must be disclosed.

[b] Blade-throw calculations: a report that calculates the maximum distance that pieces of the turbine blades could be thrown and the potential risk assessment for inhabitants and structures. The basis of the calculation and all assumptions must be disclosed.

[c] Catastrophic tower failure: A report from the turbine manufacturer stating the wind speed and conditions that the turbine is designed to withstand and the potential risk assessment for inhabitants and structures, including all assumptions.

[d] Certification by a registered New York State professional engineer that the tower's design is sufficient to withstand wind-loading requirements for structures or as established by the New York State Building Code.

[2] The results of the engineer's report shall be used to determine the adequacy of setbacks from the property line to mitigate any effects from potential ice throw, tower failure, or blade throw.

(g) Lighting plan. The applicant shall submit a lighting plan that describes all lighting that will be required, including any lighting that may be required by the FAA. Such plan shall include, but is not limited to, the planned number and location of lights, light color, whether any such lights will be flashing and mitigation measures planned to control the light so that it does not spill over onto neighboring properties.

(h) Decommissioning and site restoration plan and decommissioning bond plan.

(i) FAA notification: a copy of written notification to the Federal Aviation Administration.

(j) Utility notification: utility interconnection data and a copy of a written notification to the utility of the proposed interconnection.

(k) 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.

(l) Other information: such additional information as may be reasonably required by the Village Engineer, Village Board and Planning Board for an adequate assessment of the proposed project.

(2) The Village Board, with recommendation from the Planning Board may determine that not all of these application materials are necessary for a particular proposed project.

D. State environmental quality review (SEQR). Pursuant to Section 617.13 of New York State Environmental Quality Review Regulations, the Village 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 Village will charge the applicant for the cost of such consultant to the extent allowed herein.

§ 208-21. Criteria for approval of small-scale, non-commercial wind energy conservation systems.

A. The Village Board, with recommendation from the Planning Board, shall use the

following criteria to evaluate all small-scale wind energy conversion systems:

(1) Setbacks. All small-scale WECS shall comply with the following setbacks:

(a) All wind turbines and towers shall be set back from property lines a minimum of 1.5 times the height of the structure, including to the tip of the blade, excluding adjoining lot lines where both lots are part of the proposed project.

(2) Interference with television, microwave and radio reception. The applicant must submit information that the proposed construction of the utility-scale WECS will not cause interference with microwave transmissions, cellular transmissions, residential television 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.

(3) Interference with aviation navigational systems.

(a) The applicant shall provide documentation that the proposed WECS will not cause interference with the operation of any aviation facility.

(b) The applicant shall provide documentation that the proposed WECS complies with all Federal Aviation Administration (FAA) regulations.

(c) Locking mechanisms to limit radar interference required. All utility-scale WECS shall include a locking mechanism which prevents the blades from rotating when not producing power, in order to limit airport radar interference. This provision does not apply while the WECS is free-wheeling during start-up and shutdown. The Village Board, with recommendation from the Planning Board, may modify or eliminate the requirement for a locking mechanism if sufficient evidence is presented that no significant airport radar interference will be caused by the utility-scale WECS.

(4) Safety and security requirements.

(a) Safety shutdown. Each wind turbine 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 wind turbine shall be permitted that 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.

(b) Grounding. All structures shall be grounded according to applicable electrical codes.

(c) Wiring. All wiring between the wind turbines and the wind energy facility substation shall be placed underground unless the Village Board, with recommendation from the Planning Board, determines that this is not prudent or practicable due to site-specific constraints. The applicant is required to provide a site plan showing the locations of all overhead and underground electric utility lines, including substations for the project.

(d) Ground clearance. The blade tip of any wind turbine shall, at its lowest point, have ground clearance of not less than 30 feet.

(e) Climbability. Wind turbine towers shall not be climbable up to 25 feet above ground level.

(f) Access doors locked. All access doors to wind turbine towers and electrical equipment shall be lockable and shall remain locked at all times when operator personnel are not present.

(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 of the owner of the wind turbine in accordance with local, state and federal codes.

(5) Ice throw. The Village Board, with recommendation from the Planning Board, shall determine the acceptable ice-throw range based on the activities in the area, location and calculations of the ice throw.

(6) 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.

(7) Impact on wildlife species and habitat. Development and operation of a small-scale 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 as identified in the Village of Alden Master 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 Village Board with recommendation from the Planning Board during SEQRA review. The impact of a small-scale WECS on migratory birds and bats shall be evaluated and mitigated based on SEQRA findings.

(8) Visual impact.

(a) No advertising sign or logo shall be placed or painted on any part of any small-scale WECS.

(b) Wind turbines shall be painted an unobtrusive (e.g., such as white, gray or beige) color that is nonreflective. In order to reduce any daytime lighting requirements by the FAA, the Village Board, with recommendation from 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 Village Board with recommendation from the Planning Board, no lighting shall be installed on the WECS turbine or tower except for ground-level security lighting.

(9) Shadow flicker. The WECS shall be designed such that the project shall minimize shadow flicker onto adjacent existing residences. Mitigation measures, which may include landscaping, shall be incorporated into any special use permit approval. The required shadow flicker study shall identify areas where shadow flicker may interfere with residences and describe measures that shall be taken to eliminate or minimize the problem.

§ 208-22. Decommissioning and site restoration plan; bond required of small-scale non-commercial wind energy conservation systems.

A. The applicant shall submit a decommissioning and site restoration plan, including cost estimate, to the Village Board, with recommendation from the Planning Board, for its review and approval prior to the approval of any special use permit. The restoration plan shall identify the specific properties it applies to and shall indicate removal of all buildings, structures, wind turbines, access roads and/or driveways and foundations to 3.5 feet below finish grade; road repair costs, if any; and all regrading and revegetation necessary to return the subject property to the condition existing prior to establishment of the utility-scale WECS. The restoration shall reflect the site-specific character, including topography, vegetation, drainage and any unique environmental features. The plan shall include a certified estimate of the total cost (by element) of implementing the removal and site restoration plan. The decommissioning plan shall include information regarding the anticipated life of the project. Any variation from the submitted decommissioning plan must be approved by the Village Board, with recommendation from the Planning Board.

§ 208-23. Certifications required for small-scale, non-commercial wind energy conversion systems.

The applicant shall provide the following certifications:

A. 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 has been adopted in New York State. This shall be provided prior to the issuance of the special use permit.

B. Certification post-construction. After completion of construction of the WECS, the applicant shall provide post-construction certification from a licensed

professional engineer registered in New York State 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 Building Inspector and Village Engineer and shall be maintained in a permanent file.

C. Certification of electrical system. The electrical system shall be certified in writing by an electrical engineer registered in New York. The engineer shall certify compliance with good engineering practices and with the appropriate provisions of the electric code that has been adopted by New York State. This shall be provided prior to the issuance of the special use permit.

D. Certification of rotor overspeed control. The rotor overspeed control system shall be certified in writing by a mechanical engineer registered in New York State. The engineer shall certify compliance with good engineering practices. This shall be provided prior to the issuance of the special use permit.

E. Certification of seismic design. The applicant shall provide post-construction certification from a licensed professional engineer registered in New York State that the design and construction protects against anticipated seismic hazards.

§ 208-24. Transfer of ownership for small-scale, non-commercial wind energy conversion systems.

A. In order to ensure compliance with this provision, the person/company to whom the special use permit is originally issued, and subsequent owners, shall provide notification to the Village Clerk 90 days prior to the change of ownership.

§ 208-25. Maintenance of system; permit revocation of small-scale, non-commercial wind energy conversion systems.

A. 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 chapter and other permit conditions.

B. 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 chapter, the owner/operator shall remedy the situation within 90 days after written notice from the Code Enforcement Officer. The Code Enforcement Officer or Village Board may extend this period by another ninety-day period for a total period not to exceed 180 days.

C. Upon notice from the Code Enforcement Officer or Village Board that the WECS is not repaired or made operational or brought into permit compliance after said notice pursuant to Section 13(B) above, the Village Board shall hold a public hearing at which both the public and the owner/operator 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 Village Board may either:

(1) Order compliance within a stated timeframe; or

(2) 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.

§ 208-26. Decommissioning; bond use of small-scale, non-commercial wind energy conversion systems.

A. Nonfunctional and/or inoperative WECS defined.

(1) If any small-scale WECS remains nonfunctional or inoperative for a continuous period of one 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 small-scale WECS shall be deemed nonfunctional and/or inoperative if it has not generated power within the preceding twelve months.

§ 208-27. Penalties for offenses.

A. A violation of this chapter is hereby declared to be an offense punishable by a fine not to exceed two hundred fifty dollars ($250.00) and/or imprisonment not to exceed fifteen (15) days. The continuation of an offense against the provisions of this chapter shall constitute, for each day the offense continues, a separate and distinct offense hereunder.

B. Any penalties or damages recovered or imposed under this chapter are in addition to any other remedies available at law or equity.

§ 208-28. Other remedies.

Nothing herein shall prevent the Village Justice from ordering any other form of remedial action or making any other such determination consistent with the purposes of this chapter in addition to the fines set forth herein.

§ 208-29. Severability.

If a court of competent jurisdiction finds any provision of this chapter or the corresponding rules and regulations invalid, in whole or in part, the effect of such decision shall be limited to those provisions which are expressly stated in the decision to be invalid, and all other provisions of this chapter and the corresponding rules and regulations shall continue to be separate and fully effective.