

Hawley Wind Facility Bylaw

I. Purposes.

The purposes of this wind-generated energy production facilities section are to:

- A.** Protect the scenic, historic, environmental, and natural or man-made resources of the community without prohibiting alternative energy technologies to be developed.
- B.** Provide standards and requirements for regulation, placement, construction, monitoring, design, modification and removal of wind facilities.
- C.** Provide a procedural basis for action within a reasonable period of time for request for authorization to place, construct, operate, or modify wind facilities.
- D.** Preserve property values.
- E.** Locate wind facilities so that they do not have negative impacts such as, but not limited to, attractive nuisance, noise, falling objects, general safety, welfare and quality of life, wildlife and the environment in the community.
- F.** Require owners of wind facilities to configure them so as to minimize and mitigate the adverse impact of the wind facilities.

2. Application Requirements.

- A.** No wind facility or part thereof or modification to any of the foregoing, shall be erected, constructed or installed without first obtaining a special permit from the Board of Appeals. For purposes of this subsection, “modification” shall be defined as any change that would alter the criteria on which the original permit was granted such as modification of wind turbine height, size or number of blades, noise levels, visual impact, or changes in number or location of turbines.
- B.** Required documentation. The applicant shall provide the Board of Appeals with eight (8) copies of each of the following:
 - 1.** Duly executed application form.
 - 2.** The following plans and maps prepared, stamped and signed by a professional engineer licensed to practice in Massachusetts:
 - a.** Location map: copy of a portion of the most recent USGS Quadrangle Map, at a scale of 1:25,000 and showing the area within at least two miles from the proposed wind facility.
 - b.** Vicinity map at a scale not less than one inch equals 200 feet (1:2,400) with contour intervals no greater than 10 feet showing the entire vicinity within a two thousand-foot radius of the wind facility site, and including the topography; public and private roads; residences, homes, buildings and structures; bodies of water; landscape features; recreational facilities; and historic sites. Indicate the property lines of the proposed wind facility site parcel and of all abutters within 300 feet of the site parcel (from Assessors’ maps or available surveys). Indicate any access easement or right-of-way needed for access from a public way to the wind facility, and the names of all

abutters or property owners along the access easement or who have deeded rights to the easement.

c. Existing conditions plan: a recent survey of the site at a scale no smaller than one inch equals 40 feet [1:480] with topography drawn with a minimum of five-foot contour internals, showing existing utilities, property lines, stone walls or fence lines, wooded areas, individual trees with diameters greater than 12 inches within a three hundred [300] foot radius from the base of the proposed wind facility (labeled with their current heights) and existing buildings or structures within a one thousand five hundred [1500] foot radius from the base of the proposed wind facility. Show the boundary of any wetlands or floodplains or water courses, and of any bodies of water within two hundred [200] feet from the wind facility or any related facilities or access ways or appurtenances. The survey plan must have been completed, on the ground, by a professional land surveyor within five years prior to the application date, unless there has been substantial change since such date.

d. Proposed site plans: proposed wind facility site layout, grading and utilities at the same scale as the existing conditions plan:

- 1.** Proposed wind facility location and any appurtenances, including supports and guy wire, if any, and any appurtenant structures and equipment, including without limitation, power lines and transformers. Indicate property boundaries and distances to the base(s) of the wind turbine(s) and to the nearest corners of each of the appurtenant structures and equipment to those boundaries and dimensions of all proposed improvements. Indicate distances from the base(s) of the wind turbines and the nearest corners of each of the appurtenant improvements to all buildings, skiing and recreational facilities, private airports and airstrips, and areas used by migratory birds and other wildlife within a one thousand [1000] foot radius from the base of each wind turbine.
- 2.** Indicate proposed spot elevations at the base of the proposed wind machine and the base of any guy wires and the corners of all appurtenant structures.
- 3.** Proposed utilities, including distance from the source of power, sizes of service available and required, locations of any proposed utility or communication lines and whether underground or above ground. Limits of areas where vegetation is to be cleared or altered and the justification for any such clearing or alteration.
- 4.** Location of transmission lines connecting facility to power grid.
- 5.** Detailed plans for surface drainage and/or subsurface water; plans to control erosions and sedimentation both during construction and as a permanent measure.
- 6.** Plans indicating locations and specifics of proposed screening, landscaping, ground cover, fencing, exterior lighting or signs.
- 7.** Plans of proposed access driveway or roadway and parking area at the wind facility whether temporary or permanent; include grading, drainage,

and traveled width. Include a cross section of the access drive indicating the width, depth of gravel, paving or surface material.

e. Proposed wind facility:

1. Plans, elevations, sections and details at appropriate scales but no smaller than one inch equals 10 feet.
2. Two cross sections through the proposed wind turbine drawn at right angles to each other and showing the ground profile to at least 100 feet beyond the limit of clearing, and showing any guy wires or supports. Dimension the proposed height of wind turbine above average grade at wind turbine base.
3. Detail of proposed exterior finish of the wind turbine to the tops of surrounding trees as they presently exist, and to the height to which they are expected to grow in 10 years.

f. Proposed pad-mounted transformers, operations control facility and maintenance facility:

1. Floor plans, elevations and cross sections at a scale of no smaller than $\frac{1}{4}$ inch = 1 foot (1:48) of any proposed appurtenant structure.
2. Applicant shall also provide representative elevation views, indicating the roof, facades, doors, and other exterior appearance and materials.

g. Sight Lines:

1. A minimum of eight view lines in zero to two miles radius from the site, shown beginning at true North and continuing clockwise at 45 intervals or any other view lines requested by the Board of Appeals.
2. A plan map of a circle of three miles radius of the wind facility site on which any visibility of the proposed wind turbines from a public way shall be indicated.

h. Required Cross Sections:

Applicant shall utilize the U.S.G.S. Quadrangle map, at a scale of 1:25,000 with 10-foot contour intervals and submit four 2000 foot cross sections of the site to simulate post-construction views. The wind towers should be located in the approximate center of each cross section at a scale of 1 inch = 40 feet. The Board of Appeals will determine the locations of the four cross sections or the Board of Appeals may specify that they should be at 90-degree intervals starting at True North from the site.

i. Balloon Test:

Within 35 days of submitting an application, applicant shall, at the same time arrange to fly, or raise upon a temporary mast, three foot diameter, nine-and-one-half foot long, brightly-colored balloons at the maximum blade tip height at all proposed turbine locations of the wind facility. The dates (including a second date, in case of poor visibility on the initial date in the reasonable opinion of the Board of Appeals), times and location of this balloon test shall be advertised, by the applicant, at seven and fourteen days in advance of the first test date (and the second date, if applicable) in a newspaper with a general circulation in the Town of

Hawley and a direct mailing to each residence and property owner. The applicant shall inform the Board of Appeals in writing, of the dates and times of the test, at least fourteen days in advance. The balloons shall be flown for a least four consecutive hours sometime between 9:00 am and 5:00 pm of the dates chosen.

- j.** A re-grading and re-vegetation program for temporary roads required in connection with development of the wind facility but no longer required after project completion.
- k.** An avian risk assessment evaluating the potential impact of the proposed facility on avian life including, without limitation, resident and any migratory species in and adjacent to the wind facility site.
- l.** Wildlife risk assessment evaluating the potential impact of the proposed facility on resident and migratory wildlife habitats in and adjacent to the wind facility site.
- m.** A traffic impact assessment, parameters of which shall be determined by special permit granting authority.

3. Independent Consultants.

- A.** Upon submission of a complete application for a special permit under this article, the Board of Appeals shall hire independent consultants whose services shall be paid for by the applicant(s). In addition to the complete application, the applicant(s) shall deposit with the Town funds sufficient to cover the projected costs of any and all consultant(s) whose services may be required and requested by the Board of Appeals.
- B.** Applicants for an special permit under this Section shall obtain permission from the owners(s) of the proposed property(s) or wind facility site(s) for the town's independent consultant(s) to conduct any necessary site visit(s).

4. General Requirements.

- A.** The height of any wind turbine as measured from average grade shall be less than two hundred feet [200] feet and have a minimum blade clearance from the ground immediately below each wind turbine of twenty [20] feet.
Height calculation: For purposed of calculating the overall height of a wind turbine, the total height shall be measured from average grade to the uppermost extension of any blade or the maximum height reached by any part of the wind turbine.
- B.** Wind facilities shall be designed to minimize land clearing and fragmentation of open space. Such facilities shall be prohibited from permanently protected open space. The applicant shall provide evidence that the project will not have the potential to significantly disrupt rare ecological communities, or resident or migratory wildlife populations. Failure to do so shall be grounds for the Board of Appeals to not issue a special permit for the wind facility.
- C. Setbacks:**
 - 1.** Setbacks from adjacent parcels. A minimum setback for each wind facility shall be maintained equal to two times the overall wind turbine height, or three

hundred feet, whichever is greater, from all boundaries of the site on which the wind facility is located.

2. Setbacks from residences. Notwithstanding the provisions of subsection [1] above, a minimum setback for each wind turbine of at least twelve hundred feet shall be maintained from any building occupied by humans whether on site or on adjacent parcels.

D. All electrical wires associated with the wind facility shall be located underground between the wind turbine and the project substation.

E. If the wind facility is in a wooded area, a vegetated buffer strip of undisturbed trees shall be retained for at least fifty feet in width around the entire perimeter except where the access drive is located. Applicant shall obtain financial surety in form and amounts reasonably acceptable to the Board of Appeals to cover the cost of the remediation and re-vegetation of any damage to the landscape that occurs during the clearing of the site.

F. Fencing may be required by the Board of Appeals. Any fencing shall be located on the turbine side of the vegetated buffer described in (e) above. Signage shall be limited to one sign at the entrance no greater than 3 square feet indicating the name of the wind facility owners and a 24-hour emergency telephone number. Other signage for the purpose of warning of hazards or posting of “No Trespassing” may be erected subject to approval by the Board of Appeals. No advertising signs or logos shall be permitted on site.

G. All appurtenant structures shall be designed to be architecturally similar and compatible with each other, and shall be no more than 12 feet high. The structures shall be used only for the housing of equipment related to this particular site. As a condition to granting a special permit, the Board of Appeals may require the structures to be joined or clustered so as to appear as one building.

H. Wind turbine finish. Wind turbines shall be of a non-reflective, unobtrusive color designed to minimize adverse visual impacts.

I. Unless required by the Federal Aviation Administration (“FAA”), no external night lighting of wind turbines, or any appurtenant building, is permitted, except for manually operated emergency lights for use only when operating personnel are on site.

J. No wind turbine may be constructed that would be classified as a hazard to air navigation as defined by Federal Aviation Regulations (title 14 CFR). Applicant shall provide the Board of Appeals with an official determination as to hazard status and lighting requirements from the FAA.

K. The Board of Appeals may impose such safety-related conditions as it deems reasonably necessary.

L. Wind turbines may be used to locate telecommunications antennas, subject to applicable regulations governing such uses and subject to the following requirements:

- 1.** All ground-mounted equipment shall be located in either a shelter, within the wind turbine tower, or otherwise screened from view.
- 2.** Antennas shall be flush-mounted to be in keeping with the design of the wind turbine tower; and
- 3.** All associated cabling shall be contained within the tower structure or enclosed within a conduit finished to match the turbine.

- M.** Wind Facilities shall be located so as to minimize the following potential impacts:
 - 1. Negative visual/aesthetic consequences associated with ridgeline installations.
 - 2. Diminution of property values.
 - 3. Compromises to safety resulting from, but not limited to, structural failure, ice throw and attractive nuisance.
- N.** The Board of Appeals shall request input from Public Safety officials (or their designees) regarding the adequacy for emergency access of the planned drive or roadway to the site.
- O.** The project operator shall allow reasonable access at any hour for independent research on post-construction impacts to wildlife.
- P.** The project operator shall keep a log of all dead animals found within 500 feet of a wind turbine and make such log available to the Board of Appeals upon request.
- Q.** Operational noise from the wind facility shall not exceed 10 dBA (decibels) above background noise measured at any point along the property line.
- R.** The Board of Appeals may impose such conditions as it deems reasonably necessary to minimize or mitigate detrimental effects.
- S.** Construction of on-site roads for the installation and operation of a wind facility shall be minimized. Temporary roads used for the initial installation shall be re-graded and re-vegetated to a natural condition upon completion of construction.
- T.** The applicant(s) shall obtain written approval from the Town Selectmen for the use of any and all town roads during all phases of the construction of the project and for any later maintenance and modification of the project.
- U.** Failure to perform or provide any of the above requirements shall constitute grounds for denial of a special permit for the project by the Board of Appeals.

5. Approval Criteria.

- A.** In acting on the special permit application, the Board of Appeals shall proceed in accordance with the procedures and time lines established for special permits.
- B.** The Board of Appeals shall, in consultation with any independent consultants, make all of the applicable findings before granting the special permit:
 - 1. That the wind facility will not have an undue adverse impact on historic resources, scenic views, property values, natural or man-made resources, farm animals, wildlife, and human health.
 - 2. That the applicant has agreed to implement all reasonable measures to mitigate the potential adverse impacts of the wind facility.

6. Monitoring and Evaluation of Compliance.

- A.** Pre-testing. After the granting of a special permit and before the applicant's wind facility begins operation, the applicant shall pay for an independent consultant, hired by the town, to monitor background and operational noise, around the facility site. A report of the monitoring results shall be prepared by the independent consultant and submitted to the Board of Appeals and the Building Inspector.
- B.** Excessive emissions: Should the monitoring of a wind facility site reveal that the facility exceeds this bylaw's requirements with respect to noise levels, the owner

shall be so notified. The owner shall submit to the Board of Appeals and to the Building Inspector a plan for the reduction of noise levels to meet compliance within 10 business days of notification of non-compliance. That plan shall reduce emissions and/noise to the required levels within 15 days of the initial notification of non-compliance. Failure to do so shall be a violation of the special permit and subject to penalties and fines, as specified in section (8) below, payable by the owner of the wind facility.

7. Abandonment/Discontinuation of Use/Removal.

A. At such time that a wind facility is scheduled to be abandoned or its use discontinued, the applicant will notify the Board of Appeals by certified U.S. mail of the proposed date of abandonment or discontinuation of operations. In the event that an applicant fails to give such notice, the facility shall be considered abandoned if the facility is not operated in a continuous and ongoing basis for one year.

B. Any wind facility which has reached the end of its useful life or has been abandoned shall be removed. At the time of removal, the wind facility site shall be reclaimed. All wind turbines and appurtenant structures shall also be removed and the wind facility site shall be re-vegetated. Existing trees shall only be removed if necessary to complete the required removal. The applicant, upon obtaining a special permit, shall deliver to the Board of Appeals a financial surety, in form and amounts reasonably acceptable to the Board of Appeals, to cover the cost of removal and disposal of the wind facility and the remediation of the landscape in accordance with this subsection. Such financial surety shall be renewed and updated annually, and copies filed with the Town Clerk and with the Board of Appeals, throughout the life of the wind facility so as to continue to cover the removal, disposal and remediation costs as set forth above. The foregoing notwithstanding, the applicant shall be entitled to apply for a special permit to leave the foundation of the wind facility intact in order to minimize disruption to existing vegetation and minimize erosion.

8. Penalties & Fines.

Any violation of any provision of the bylaw for wind facilities may be fined not more than \$300 (or the maximum allowable by state law) for each offense. Each day that each such violation continues shall constitute a separate offense.

9. Severability clause.

The invalidity of any section or provision of this bylaw governing wind facilities shall not invalidate any other section of provision hereof.